PhD opportunity in energy and health

Canadian hydropower and U.S. renewable energy transitions

Parts of the United States are pursuing deep decarbonization. Replacement of fossil fuel power plants with renewable alternatives is expected to reduce climate impacts and improve local health and environmental justice.

Canada's vast hydroelectric resources have been an important component of renewable energy transitions in the northern United States. Recent plans to import Canadian hydropower have however been affected by awareness of impacts of reservoir development on Indigenous health and welfare in Canada and claims of adverse impacts on development of U.S. renewable energy infrastructure.

Interdisciplinary research opportunity

How can developed and undeveloped resources be used to maximize environmental, health, economic and other benefits? What drives policy and decisionmaking around hydropower development in Canada and utilization in the U.S.?

I am seeking a student interested in devoting the doctoral dissertation to addressing these and related questions. The student will benefit from existing collaborations in economics, health and engineering in research and professional practice across North America (and be encouraged to develop new ones).

Ryan Calder, ScD, PE

I am Assistant Professor of Environmental Health and Policy in the Dept. of Population Health Sciences at Virginia Tech. I am launching a lab devoted to decision support for management of environmental change. My work synthesizes engineering and public health. For more information, see <u>www.rycalder.com</u>



PhD in Biomedical & Veterinary Sciences

- 90-credit, four-year course of study
- 27-60 credits of coursework (incl. 19 predefined program requirements)
- Coursework tailored to individual disciplinary interests to support dissertation and other projects
- Publication of scientific papers
- Presentation at national/ international research conferences
- Development of and participation in seminars at Virginia Tech

Interdisciplinary research community

Candidates are encouraged to pursue a fellowship within the <u>Interfaces for</u> <u>Global Change (IGC)</u> Interdisciplinary Graduate Education Program (IGEP), a University-wide initiative to advance knowledge through the synthesis of traditional disciplinary approaches.

Funding, benefits and quality of life

- Tuition, stipend, benefits and research expenses paid (external fellowships permitted/encouraged)
- Virginia Tech is in scenic Blacksburg, VA in proximity to abundant natural capital and recreational resources

Contact

Please email a CV/résumé and a short expression of interest to **Prof. Ryan Calder** at <u>rsdc@vt.edu</u>.

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