

University of New Brunswick

The Emera & NB Power Research Centre for Smart Grid Technologies of the University of New Brunswick, Canada invites applications for funded masters and doctoral students.

The Centre is seeking up to five masters and doctoral students to conduct research under an externally funded project that examines technology and social change in electric power grid transformation and decarbonization.

The use of coal, oil and other fossil fuels to meet peak demands is transitioning to new models with lower greenhouse gas (GHG) emission power generation, transmission and distribution. While there is consensus on the broad elements of this change, there are profound differences in the costs, GHG emissions and social changes associated with specific grid implementation scenarios and timetables. Research topics to be addressed include the following.

1. Are changes required to the underlying principles of electricity acts in the transformation of the electric power industry?
2. What are the changing roles of utilities in operating the grid? What outcomes does society want from electric utilities?
3. How does change happen in other sectors characterized by wide-scale adoption of new “counting” regimes (e.g. hours, calories steps, etc.) by users and what insights may be applied in the power utility sector?
4. How are new knowledge production methods changing in the transformation of the grid?
5. What are the implications of changing utility rate design and regulatory structures that move away from the cost of service models to performance based rate making?
6. What are the social, technological and economic values of the distribution grid?
7. What transition pathways exist for regional utilities in power systems decarbonization?

We are seeking students with:

- an university degree or expected degree (bachelor, master or equivalent) in history, sociology, science and technology studies or business;
- an ability to organize, plan and communicate in a team setting; and
- excellent English skills.

If of interest, please send an email to Dr. David Foord (david.foord@unb.ca) with a: (1) CV (resumé); (2) educational transcripts; and (3) writing sample.