

# research snapshot

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## Ontario Needs to Do More to Improve on Sustainability in Its Energy Policy Plans

### What is this research about?

Electric system planning has been hotly debated by academics, policymakers, and the public over the last 30 years. As a result, many electric power planning programs have had sustainability assessments. These assessments are tools used by governments to improve sustainability in their policies. In Canada, the provinces have almost complete control over electricity policy. Ontario's electric system has been central to its economic development. The province needs an almost complete reconstruction of its electric system over the next 20 years. The Ontario government has focused on closing down coal power plants and replacing them with other power sources. These include:

- Nuclear
- Natural gas
- Renewables like solar and wind

The province's 20 year system plan, the Integrated Power System Plan (IPSP), was exempted from Ontario's Environmental Assessment Act. However, the Ontario Power Authority was required to consider environmental sustainability in the development of the plan. Researchers from York University and the

### What you need to know:

The Integrated Power System Plan proposed by the Ontario Power Authority failed to maximize its potential contributions to the province's economic, social and environmental sustainability.

University of Waterloo did a sustainability assessment of the IPSP.

### What did the researchers do?

Researchers from York University and the University of Waterloo looked at the integrated power system plan that was produced by the Ontario Power Authority (OPA) in 2007. The researchers applied the same sustainability assessment framework that the OPA had claimed to use in developing the IPSP to see if their conclusions would be different from those reached by the OPA.

### What did the researchers find?

The researchers found that the OPA did not apply sustainability principles well enough in its planning. In particular, the OPA failed to properly apply all of the sustainability criteria in the sustainability assessment framework which it claimed to have applied in developing the IPSP.

The full list of criteria applied by the researchers was:

- Socio-economical system integrity
- Livelihood sufficiency and opportunity
- Intergenerational equity
- Intragenerational equity
- Resource maintenance and efficiency
- Precaution and adaptive capacity
- Immediate and long-term integration

The researchers concluded that a plan which fully applied these criteria would be more effective compared to the proposed IPSP. The plan would:

- Increase the role of energy conservation and demand management;
- Increase the contributions of low-impact renewable energy sources;
- Reduce the plan's reliance on nuclear energy;
- Reduce the roles of single cycle and combined cycle natural gas fired generation.

### How can you use this research?

Ontario's energy and environmental policymakers may use this research to improve the province's approach to electric system planning. Community groups may use this research to advise governments on how to maximize sustainability and conservation in their decisions.

### About the Researchers

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### Keywords

Sustainability assessment, Power system planning, Ontario

### Knowledge Mobilization at York

York's Knowledge Mobilization Unit provides services for faculty, graduate students, community and government seeking to maximize the impact of academic research and expertise on public policy, social programming, and professional practice. This summary has been supported by the Office of the Vice-President Research and Innovation at York and project funding from SSHRC and CIHR.

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