



FOR IMMEDIATE RELEASE  
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## **Backgrounder:** ***An Inventory of Low-Carbon Energy for Canada***

[\*An Inventory of Low-Carbon Energy for Canada\*](#) is the second research report released by the Trottier Energy Futures Project, a partnership of the David Suzuki Foundation, the Canadian Academy of Engineering and the Trottier Family Foundation.

The TEEP is a research and modeling effort to determine how Canada can achieve an 80 per cent reduction in its energy-related greenhouse gas emissions by 2050—the target set by the Intergovernmental Panel on Climate Change to mitigate the worst effects of global climate change.

From its review of a wide range of low-carbon fuel and electricity sources, the Trottier Energy Futures Project concludes that:

- The potential *supply of renewable energy in Canada* is much larger than the current or forecast demand for fuel and electricity, and it can be developed by 2050 with technologies that are already known and available.
- The *cost of renewable energy* has been falling in recent years, and promises to fall even further as the world intensifies its focus on clean energy options. Through greater reliance on renewables and greater energy efficiency, Canada can move toward an economic, low-carbon energy future.
- Canada's most affordable, environmentally sustainable energy path to 2050 will depend on a *mix of renewable technologies* that vary by region and are often located closer to the point of energy use.
- Canada's *principal low-carbon energy resources* include:
  - Electricity from large and small hydro, solar and wind
  - Liquid fuels from biomass
  - Longer-term potential in geothermal, wave and tidal energy
  - Uranium resources that are very large relative to domestic requirements.
- An 80 per cent reduction in Canada's energy-related greenhouse gas emissions by 2050 will depend on an *integrated energy system* that combines individual technologies to deliver affordable, reliable, sustainable energy services. The "smart" electricity grid of the future will use information technologies to balance a wider range of supply sources, energy storage, interprovincial transfers of electricity and a wide variety of energy management and efficiency tools.

- Even with a much larger role for electricity in the energy system, up to half of Canada’s energy demand would still be met by *liquid fuels*. A low-carbon future could mean a five- to seven-fold increase in the use of biomass for energy, and the Trottier Energy Futures Project is studying the significant implications for the use of forest, agricultural and other productive lands, and for the industries and communities that depend on them.

**About the Report**

- The *Inventory* concentrates primarily on options that are *technologically viable now* or very likely to be in the near future, to avoid relying on research, development and demonstration timelines that could shift in the future.
- Improvements in the *energy productivity of the economy*—measured as GDP per unit of fuel and electricity consumed—result from greater energy efficiency, but also from a wide variety of factors outside the actual energy system that reduce the need for fuel and electricity.

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