



Canadian
Electricity
Association

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canadienne
de l'électricité



SUSTAINABLE ELECTRICITY

A Major Driver of the Economy...

...The Canadian Electricity Industry

Overview of the Sector

Electricity reaches the Canadian consumer through an interconnected network of generating plants, transmission lines and distribution facilities. Electricity is produced on a large scale by generators that convert mechanical energy into electrical energy. Once the electricity is generated, it is transmitted by high voltage transmission lines to distribution substations, where it is converted to lower voltages. Only then can electricity be distributed to its final customers. About one-quarter of all the energy used by Canadians is electricity, and in most applications there is no substitute.

Electricity in Canada is generated using hydropower, nuclear power, fossil fuels (coal, oil and natural gas), as well as alternative and emerging generation technologies that are fueled by biomass, wind, and solar power. Hydropower accounts for the largest supply source in Canada, generating approximately 60% of Canada's electricity supply.



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Canada's growing economy and its increasing population have led to an increase in electricity demand of nearly 22% since 1990. Electricity demand is expected to grow further in the

decades ahead as the economy continues to evolve and grow. Reliability of the electricity system and the long-term cost effectiveness of electricity will depend on future investment conditions for new electricity infrastructure across the country.

The electricity sector is a major contributor to the Canadian economy, employing approximately 94,100 workers and contributing \$22.87 billion to Canada's Gross Domestic Product. Canada's bulk transmission network, which consists of more than 160,000 kilometers of high voltage lines, transports electricity not only between Canada's provinces and territories, but also between Canada and the U.S. In 2007 Canada exported 50.1 terawatt hours (worth \$3.1 billion) of electricity and imported 14.6 terawatt hours (worth \$1.1 billion).

Electricity is a major driver of the Canadian economy, and is essential to our current standard of living and future prosperity.