Canada's Energy-Intensive Economy: A Synopsis

Canada accounts for less than 3 percent of world energy use. On a per capita basis, however, Canadians are major energy users. Several factors contribute to this.

- With a land mass that extends roughly 5 300 kilometres from east to west and nearly 4 600 kilometres south to north, Canada faces significant transportation challenges for both people and goods.
- Canada's climate—characterized by long, cold winters and short, hot summers—creates a heavy energy demand for space heating and cooling.
- Canada's resource-intensive and export-oriented industries account for a larger part of the economy than in most other developed countries. These industries generate a large demand for energy to produce and export products.

At the same time, Canada's economy is becoming more energy-efficient due to the use of market-based energy prices, minimum energy-efficiency standards for equipment, information programs for energy consumers, and many other initiatives.

In addition to its proficiency in various forms of energy supply, Canada is at the forefront in developing and applying energy-efficient technologies, practices, and building design and research, which further contribute to job creation and economic growth. For example, the Canadian Industry Program for Energy Conservation has helped improve overall industrial energy intensity by 1.26 percent per year, on average, between 1990 and 1998. Canada's R-2000 housing is widely recognized as being the most energy-efficient housing commercially available anywhere in the world.

The Concept of Sustainable Development Applied to Energy

The energy sector makes an important contribution to Canada's economy and to the well-being of individuals, families, and communities. At the same time, the production and consumption of energy affects our environment. The burning of fossil fuels, for example, releases carbon dioxide and air pollutants. Producing energy from nuclear sources gives rise to issues of long-term waste disposal. The damming of large rivers for hydroelectric power results in flooding and other environmental impacts. Other renewable energy technologies (such as wind, biomass, and photovoltaic), while generally more benign, also have environmental impacts.