

# Sector Report

## Power

## Canada

Produced by:  
Helen McCart, Toronto BCG, Trade Office  
Last revised: August 2007

Whereas every effort has been made to ensure that the information given herein is accurate, UK Trade & Investment or its sponsoring Departments, the Departments of Trade & Industry and Foreign & Commonwealth Office, accept no responsibility for any errors, omissions or misleading statements in that information and no warranty is given or responsibility is accepted as to the standing of any firm, company or individual mentioned.

## Table of Contents

<b>OVERVIEW</b>	<b>3</b>
<b>CHARACTERISTICS OF MARKET</b>	<b>3</b>
<b>OPPORTUNITIES</b>	<b>4</b>
<b>KEY METHODS OF DOING BUSINESS</b>	<b>4</b>
<b>MORE DETAILED SECTOR REPORTS</b>	<b>4</b>
<b>PUBLICATIONS</b>	<b>5</b>
<b>EVENTS</b>	<b>5</b>
<b>CONTACT LISTS</b>	<b>6</b>

## OVERVIEW

Canada is the world's fifth largest energy producer and energy is Canada's second largest industry. Ontario is in direct need of investment in electricity production. It currently imports electricity from other provinces and the northern US. Estimates from Ontario Power Authority on power supply/capacity required by 2025: Nuclear - 12,900 to 15,900 MW (\$30 to \$40 billion Cdn); renewables - 13,900 to 16,100 MW (\$14 to \$22 billion); natural gas - 10,200 to 12,500 MW (\$7 to \$ 10 billion); Conservation - 1,800 to 4,300 MW (\$5 to \$11 billion)

Areas of focus for the UK area: direct investment (including PPP) into the electricity production sector, nuclear, renewables, sustainable housing, conservation initiatives, emissions trading, and fuel cells.

There is considerable synergy between the UK and Canada in all facets of energy, and it is a market that welcomes British innovation.

## CHARACTERISTICS OF MARKET

Canada's electrical generation industry is unique in the world in the dominance of hydro in the overall mix. It is the world's largest producer of hydroelectricity, generating over 315.5 Bkwh from the source in 2002. Quebec has the largest share of Canada's hydroelectric production, followed by British Columbia. There are estimates that Canada still has 180,000 MW of hydroelectricity potential remaining, though only 34,000 MW is currently deemed economically feasible.

However, the overall mix masks very considerable regional variations. In most provinces generation is either dominated by hydro or by fossil fired thermal although in some such as Ontario there is a more diverse mix. As well, in Ontario nuclear power plays a key role.

Canada produced 548.9 billion kilowatt hours (Bkwh) of electricity in 2002, while the country consumed 487.3 Bkwh. Around 57% of Canada's electricity generation comes from hydroelectricity, followed by conventional thermal (28%), nuclear (13%), and other renewables (1%).

Canada's provinces hold most responsibility for regulating the electricity industry. Province-owned utility companies dominate generation, transmission, and distribution activities. The three largest such companies are Ontario Power Generation, Hydro-Quebec, and B.C. Hydro. There are some privately owned firms, and most provinces allow open access to the electricity grid, but they are marginal to the overall market.

There have been efforts to restructure the Canadian energy sector, with an eventual aim to privatise the industry. Alberta began deregulation in 2001, followed by Ontario in 2002. However, in both places, electricity prices surged following initial deregulation efforts, causing the provinces to initiate price caps on residential utility rates; both provinces have plans to remove these caps in the near future. Privatisation of province-owned utility companies has also stalled, facing pressure from organised labour and consumer groups.

## OPPORTUNITIES

Opportunities should be considered on an individual provincial basis. In this market report, only the province of Ontario will be highlighted.

In mid-June 2006, Ontario's Energy Minister announced in that the Government will accept the Ontario Power Authority's (OPA) Supply Mix Recommendations to 2025, as follows:

### Nuclear

Nuclear power will continue to provide about half of the province's power to 2025. This will be achieved by refurbishment of existing units at Pickering and Darlington and the building of new units at an existing nuclear site. Likely candidate sites are Bruce Power (Tiverton) and Darlington. Future use of nuclear power will be limited to today's capacity of 14,000MW (2005 peak demand of 25,200 MW is expected to rise to between 30,000 MW to 36,000 MW by 2025).

### Renewables

The government aims to double the amount of electricity drawn from renewables, up to 15,700MW by 2025. Hydroelectric power currently provides about 7500MW, and an additional 1350MW will come from small scale hydro projects. The province also intends to import hydro power from large scale projects in other provinces. Wind is expected to provide 5000MW and solar power and biomass are expected to increase from negligible levels today to 40MW and 500MW respectively in 2025. As announced in the 2006 Budget, a bioenergy research facility will be established associated with the Atikokan (coal) power station.

### Coal

In 2003, the Provincial Liberal Government's election campaign included a promise to close coal power plants by 2007, which was later extended to 2009. It has been confirmed that to meet Ontario's electricity demands, coal plants would need to remain open beyond 2009. The government has asked the OPA to recommend cost effective measures to reduce emissions from coal plants.

### Gas

Despite rapidly increasing prices, the proportion of electricity produced in gas fired power plants will remain fairly static (7% today to 6% in 2025). Gas will be used to meet peak demands or locally where no alternatives are available.

### Conservation

The Ontario government expects to make savings of 6,300MW by 2025 through conservation. This is double the amount projected as achievable by the OPA. Smart meters and variable pricing are expected to encourage conservation, there are extensive pilot projects in place, and by 2010 every home and business in Ontario is expected to have smart meters installed.

## KEY METHODS OF DOING BUSINESS

- Direct to end-user/customer.

- Partnership with Canadian company in form of distributorship or agency/manufacturers representative.

## MORE DETAILED SECTOR REPORTS

When considering doing business in Canada, it is essential to obtain legal, financial and taxation advice. A useful contact list of lawyers and other relevant professional bodies as well as further information on the fire, police & security sector in the country is available from the Consulate General. For further details, please contact:

Helen McCart  
British Consulate General, Toronto  
Tel: 001 416 593 1290 x2242  
Fax: 001 416 593 1229  
Email: [helen.mccart@fco.gov.uk](mailto:helen.mccart@fco.gov.uk)  
[www.uktradeinvestcanada.org](http://www.uktradeinvestcanada.org)

## PUBLICATIONS

*ELECTRICAL LINE MAGAZINE*

[www.electricalline.com](http://www.electricalline.com)

*ELECTRIC ENERGY T&D*

[www.electricenergyonline.com](http://www.electricenergyonline.com)

*ELECTRICITY CITY*

[www.electricity-today.com](http://www.electricity-today.com)

*RENEW CANADA*

[www.renewcanada.net](http://www.renewcanada.net)

*WINDLINK*

[www.canwea.ca/en/windlink](http://www.canwea.ca/en/windlink)

## EVENTS

ENERCOM

[www.enercom.to](http://www.enercom.to)

March 2008, Toronto, Ontario

CDEA CONFERENCE & EXHIBITION

[www.cdea.ca](http://www.cdea.ca)

May 2008, Calgary, Alberta

OEA CONFERENCE & TRADESHOW

[www.energyontario.ca](http://www.energyontario.ca)

September 2007, Niagara Falls, Ontario

CANWEA CONFERENCE & TRADESHOW

[www.canwea.ca](http://www.canwea.ca)

September 2007, Quebec City, Quebec

CANADIAN BROWNFIELDS CONFERENCE & EXHIBITION

[www.canurb.com](http://www.canurb.com)

18 - 19 October 2007, Montreal, Quebec

**CONTACT LISTS**

CANADIAN ASSOCIATION FOR RENEWABLE ENERGIES

[www.renewables.ca](http://www.renewables.ca)

CANADIAN ELECTRICITY ASSOCIATION

[www.canelect.ca](http://www.canelect.ca)

CANADIAN DISTRICT ENERGY ASSOCIATION

[www.cdea.ca](http://www.cdea.ca)

CANADIAN HYDROPOWER ASSOCIATION

[www.canhydropower.org](http://www.canhydropower.org)

CANADIAN NUCLEAR ASSOCIATION

[www.cna.ca](http://www.cna.ca)

CANADIAN RENEWABLE FUELS ASSOCIATION

[www.greenfuels.org](http://www.greenfuels.org)

CANADIAN SOLAR INDUSTRIES ASSOCIATION

[www.cansia.ca](http://www.cansia.ca)

CANADIAN WIND ENERGY ASSOCIATION

[www.canwea.ca](http://www.canwea.ca)