



Quick Facts

For the year ended March 31, 2002

Corporate Mission

BC Hydro's corporate mission is to provide integrated energy solutions to our customers in an environmentally and socially responsible manner.

Business of BC Hydro

British Columbia Hydro and Power Authority is a provincial Crown corporation. As one of the largest electric utilities in Canada, BC Hydro serves more than 1.6 million customers in an area containing over 94 per cent of British Columbia's population. Between 43 000 and 54 000 gigawatt-hours of electricity are generated annually, depending upon prevailing water levels, with more than 80 per cent produced by major hydroelectric generating stations on the Columbia and Peace rivers. Electricity is delivered to customers mainly through an interconnected system of more than 70 000 kilometres of transmission and distribution lines. BC Hydro's Board of Directors is appointed by the Lieutenant-Governor in Council and is responsible for the overall direction of the company.

Facts of Interest

- Net income of \$403 million for the twelve months ended March 31, 2002, was \$43 million lower than that earned during the same period last year. Before the Customer Profit Sharing and any transfers to or from the Rate Stabilization Account, net income of \$258 million was \$601 million lower than that earned in the prior year. A number of non-controllable factors combined to produce this decline in net income, including very low water inflow levels, a dramatic decline in market prices for energy (since late June 2001), and the effects of the slowing North American economy.
- On the supply side, low — and in some cases record low — snowpack, inflows and reservoir levels throughout the Pacific Northwest early in the fiscal year reduced the level of available hydro generation. Increased electricity purchases were one result and as such BC Hydro ended up being a net importer of power for the year. This year, inflows are returning to normal and are projected to be 106 per cent of average.
- Domestic tariff rates, rates BC Hydro customers pay for electricity within B.C., remained frozen and have not increased since April 1993. These rates continue to be among the lowest in North America.

Energy Facts

Definitions

power = how much electricity is consumed by customers (or produced by power generators) at any instant in time

energy = how much is consumed (or produced) over a period of time

capacity = the maximum sustainable amount of energy that can be produced or carried at any instant

Example: a car engine's horsepower rating is its energy capacity.

Units of power

- 1 kilowatt (kW) = 1000 watts
- 1 megawatt (MW) = 1000 kilowatts (or 1 million watts)
- 1 gigawatt (GW) = 1000 megawatts (or 1 billion watts)

Units of energy

- 1 kilowatt hour (kWh) = 1000 watts for 1 hour (1000 watt hours)
- 1 megawatt hour (MWh) = 1000 kWh
- 1 gigawatt hour (GWh) = 1000 MWh

(Note that the abbreviations for prefixes follow metric convention, so kilo is k, while mega and giga are capitalized. The abbreviation for watt is W.)

Power to Energy ratios — rule of thumb

- Power to energy — for thermal electric: MW x 8 = GWh per year
- Power to energy — for large hydro: MW x 5 = GWh per year

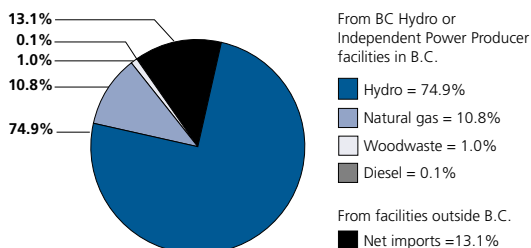
Comparison statistics

- the average household in BC Hydro service area uses about 10,000 kWh per year.
- a large industrial customer, such as a pulp mill, might use 400 GWh in a year, equal to the consumption of 40,000 households.
- a typical large office building of 20–25 storeys will consume 5 GWh in a year, equal to the consumption of 500 households.
- a large "big box" retail outlet will consume 3.5 GWh per year, or roughly the equivalent of 350 households.
- 1 MWh of electrical power contains the same amount of energy (work capability) as:
 - 0.6 barrels of oil
 - 90 cubic metres of natural gas
- 1 foot of water in Williston Reservoir is on average about 200 GWh per year
- a 1 MW micro hydro plant produces about 5 GWh per year of green energy

Financial Information (in millions)

	2002	2001
Revenues	\$ 6,311	\$ 7,889
Net income	\$ 403	\$ 446
Capital expenditures	\$ 545	\$ 413
Capital assets	\$ 9,510	\$ 9,361
Net long-term debt	\$ 6,889	\$ 6,214
Rate stabilization account	\$ 87	\$ 232

BC Hydro System Blue Supply (2001)



Operating Statistics

	2002	2001
<i>Customers at March 31</i>		
Residential	1 424 505	1 411 333
Light industrial and commercial	182 025	180 607
Large industrial	132	131
Other	3 064	3 042
Electricity trade	145	174
Total	1 609 871	1 595 287
<i>Electricity sold (gigawatt-hours)</i>		
Residential	15 170	14 537
Light industrial and commercial	16 446	16 292
Large industrial	14 513	15 573
Other	1 672	1 729
Electricity trade	20 666	23 900
Total	68 467	72 031
<i>Electric revenues (in millions)</i>		
Residential	\$ 930	\$ 892
Light industrial and commercial	874	866
Large industrial	482	524
Other energy sales	89	90
Miscellaneous	75	59
Electricity trade	3 861	5,458
Total	\$ 6,311	\$ 7,889
<i>Average revenue (cents per kWh)</i>		
Residential	6.1	6.1
Light industrial and commercial	5.3	5.3
Large industrial	3.3	3.4
Other energy sales	5.3	5.2
Electricity trade	18.7	22.8
<i>Average annual kilowatt-hour use per residential customer</i>		
	10 695	10 344
<i>Peak one-hour demand, integrated system (megawatts)</i>		
	8 692	8 995
<i>Lines in service</i>		
Distribution (kilometres)	54 451	57 238
Transmission (circuit kilometres)	18 025	18 025
Number of employees	6 144	5,952

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Canada

Generating Capacity in kW

Hydroelectric*	Kilowatts (kW)
Aberfeldie	5 000
Alouette	9 000
Ash River	27 000
Bridge River	466 000
R Buntzen	72 800
Cheakamus	157 000
R † Clayton Falls	2 000
Clowhom	33 000
Elko	12 000
Falls River	7 000
R John Hart	126 000
Jordan River	170 000
Kootenay Canal	580 000
Ladore	47 000
La Joie	25 000
Mica	1 805 000
V Peace Canyon	694 000
R Puntledge	24 000
V Revelstoke	1 980 000
Ruskin	105 000
R Seton	48 000
Seven Mile	594 000
V Shrum, G.M. (W.A.C. Bennett Dam)	2 730 000
R Shuswap	6 000
Spillimacheen	4 000
V R Stave Falls	91 000
R Strathcona	64 000
R Wahleach	63 000
Walter Hardman	8 000
Whatshan	54 000
	10 008 800

Thermal

Burrard	912 500
Fort Nelson	45 000
Prince Rupert	46 000
	1 003 500

Stationary and Mobile Diesels

† Ah-Sin-Heek	6 300
† Anahim Lake	3 530
† Atlin	2 650
† Bella Bella	3 300
† Dease Lake	4 100
† Eddontenajon	2 300
† Masset	11 374
† Sandspit	9 650
† Telegraph Creek	2 300
	45 504
† NIA Surrey	2 650
Total Capacity	11 101 704

* Maximum sustained generating capacity
R Has recreational area
V Has visitor centre
† Non-integrated area (NIA)

Transmission Lines in Service

Circuit Kilometres

500 kV lines	5 675
360, 287 and 230 kV lines	4 113
138 kV lines	4 571
60 kV lines	3 666
Total	18 025