

Fact Sheet: Power Supply

Public Power – Meeting our Future Needs

There is no need to break-up BC Hydro or privatize future power generation to meet future supply needs. According to BC Hydro's own documents, we have enough power and planned generation to last us well into the future.

In a *Vancouver Sun* interview, BC Energy and Mines Minister Richard Neufeld contends that BC will run short of electricity by 2007. This assertion is based on out of date economic growth analyses and assumes that there are no projects in place to increase power supply. It is not consistent with either BC Hydro's Integrated Ten Year Electricity Plan (updated in 2000) nor the 2001/2002 BC Hydro Annual Report (released in July 2002).

New Supply

Since the Integrated Electricity Plan of 2000, BC Hydro has moved forward to implement a number of those supply initiatives including a number of dam upgrades, and green energy projects. Columbia Power and the Columbia Basin Trust are also in the midst of adding 20MW of new efficiency at the Brilliant Dam and have applied for an environmental assessment of a proposed 100MW expansion at Brilliant. BC Hydro's Service Plan predicts 1500 to 1900 GW-h of new green energy by the end of fiscal 2005 (if only the 10% goal is met, it will be 1100 GW-h) as well as 500 GW-h of new Power Smart conservation, also by end of fiscal 2005. (Source: BC Hydro's Service Plan for Fiscal Years 2002/2003 to 2004/2005, February, 2002.<http://bchydro.com/info/reports/reports857.html>)

Economic Growth Much Less than Projected

Provincial economic growth has been much slower than predicted when the 2000 Integrated Electricity Plan said the province had more adequate electricity supply until at least 2007. That slower economic growth will also have reduced the demand for future power. In the year the Integrated Electricity Plan was prepared (2000), the provincial Ministry of Finance and Corporate Relations and the Minister's Economic Forecasting Council were forecasting real Gross Domestic Product growth for BC of 2.7% for 2001. But according to the March 2002 provincial budget, actual real G.D.P. growth came in at only .7% in 2001 and was projected to be only .7% for 2002. (Source: Economic Analysis of British Columbia Vol. 22, Number 2, 2002. Savings and Credit Unions of British Columbia. <http://www.credit-union.com/economics/EApublishsite.html>)

As Simon Fraser University professor Mark Jaccard and Rose Murphy point out in a recent paper focusing on Vancouver Island, the region which has been identified as particularly requiring new supply, "The forecast of Vancouver Island electricity demand was made prior to the latest economic downturn and the decision to eliminate about 6,000 public sector jobs on

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Vancouver Island over the next three years. Electricity demand is closely tied to economic activity...the (BC Hydro) load forecast...may be inflated given recent trends of economic recession and downsizing within the public sector - not to mention the softwood lumber issue.”

(Source: “BC’s Electricity Options: Multi-Attribute Trade-Off and Risk Analysis of the Natural Gas Strategy for Vancouver Island” by Mark Jaccard and Rose Murphy. Energy and Materials Research Group, School of Resource and Environmental Management, Simon Fraser University. May 1, 2002. Pages 22 and 23. <http://www.erg.sfu.ca/articles/BCElectricityOptions.pdf>)

Supply and Demand Projections in the 2002 BC Hydro Annual Report

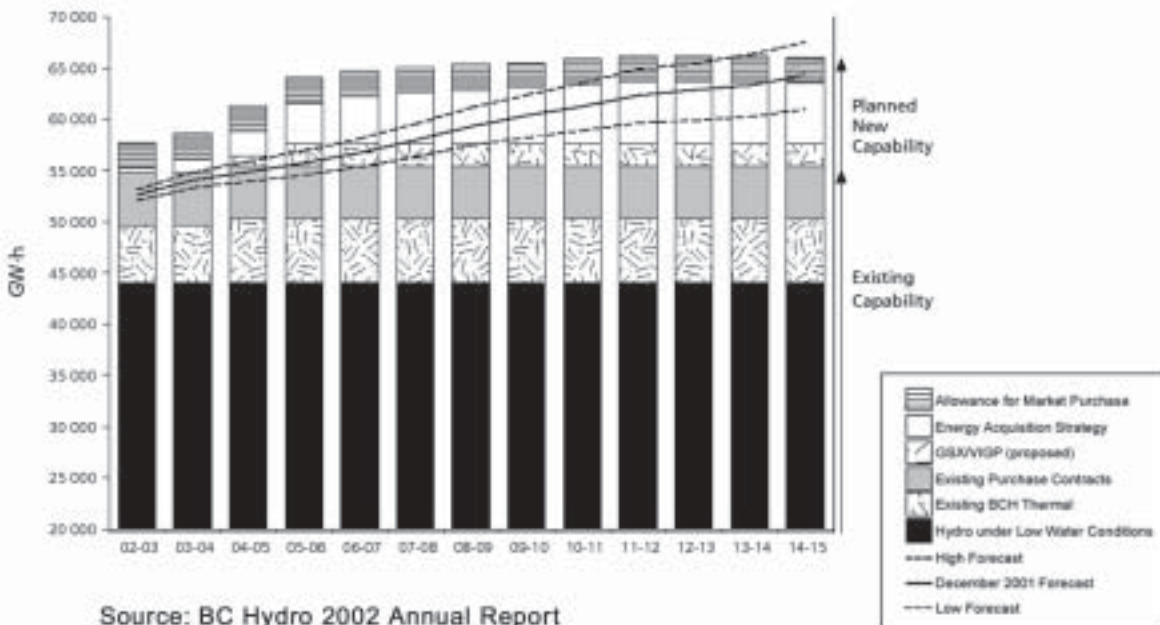
For both “system firm” energy and “system dependent” capacity, the Annual Report says that, so long as planned new capability comes on stream, BC Hydro will keep up with demand until 2010 and beyond. (Source: BC Hydro 2002 Annual Report. Pages 62, 63 and 64.)

The strategy for new capability includes:

- additional Power Smart improvements of 3500 GW hours/year by 2011;
- new “Resource Smart” improvements to the efficiency of existing facilities, including Seven Mile Unit 4;

SYSTEM FIRM ENERGY SUPPLY-DEMAND BALANCE

The System Firm Energy Supply-Demand Balance chart below compares forecast annual energy demand (net of Power Smart) to the energy output of existing (under low water condition) and planned new facilities.



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BC is a Substantial Exporter of Electricity

Minister Neufeld justifies breaking up Hydro and privatizing future power generation by noting that British Columbia imported electricity to meet demand in three of the last ten years.

A full picture of BC Hydro's imports and exports show that BC's power supply is no where near dangerous levels.

By definition, a water supported hydro-electric system is very dependent on water levels behind its dams. Those water levels, in turn, vary from year to year as a result of changes in snowpack and other weather related factors. As with two other years in the last ten, fiscal 2002 was a "low water year". Water inflows into BC Hydro reservoirs were 88% of normal, resulting in a 12% reduction in hydro generation. According to the BC Hydro 2002 Annual Report, "this year, inflows are returning to normal and are projected to be 106 per cent of average." (Source: BC Hydro Annual Report 2002. Page 14 and page 5)

The extremely active involvement of BC Hydro and Powerex in electricity trading is one important reason why we sometimes import electricity. In fiscal 2002, BC Hydro's electricity trade revenues were \$3.861 billion, down from \$5.45 billion in 2001. This huge trade is possible because the BC Hydro system is interconnected with systems in Alberta and the western United States.

Because BC enjoys the tremendous advantage of being able to adjust water levels and to store electricity in its reservoirs, Powerex can (for example) purchase power from Alberta at night when demand and market prices are lower and then store it for sale at times of higher demand and higher prices. Such purchases are, of course, technically "imports" but only for the purpose of eventual "export".

As a point of comparison, it's interesting that total 2001 exports of electricity to the United States by BC Hydro and Powerex (of 5,5521,607 MW-h) were roughly ten times the total exports to the US from Alberta (of 628,390 MW-h). (Source: Electricity Imports and Exports, December 2001 National Energy Board. Table 2A. Pages 1 and 2. http://www.neb.gc.ca/stats/elec/elx0112_e.pdf)

Conclusion

British Columbia is in no danger of a supply crunch worthy of dismantling one of our key economic advantages. BC remains a substantial exporter of power and when we do import power, we do so because of extremely low water levels or at low prices with the goal of eventual export.

If the planned public power projects are allowed to continue, BC will have enough power to last well into the future.