

## BC Hydro Energy Planning Process

### Integrated Electricity Plan and Long-Term Acquisition Plan

Since new resources require significant lead times to build, electric utilities must plan ahead to be sure resources are in place when needed. Because integrated electricity systems are complex and capital-intensive, energy planning is typically based on load forecasts and resource options looking forward 15 to 20 years. At BC Hydro, the energy planning process is designed to be sufficiently flexible to respond to changing market conditions and future uncertainties.

The energy planning process at BC Hydro is driven by two documents developed on a recurring basis.

- The Integrated Electricity Plan (IEP), which evaluates the outlook for energy supply and demand for a 20-year horizon, and provides the analysis and acquisition strategy for BC Hydro. The most recent IEP was filed in March 2006 and outlines how BC Hydro plans will meet anticipated customer electricity needs for the 20-year planning period from F2006 to F2025.
- The Long-Term Acquisition Plan (LTAP) is BC Hydro's action plan to cost-effectively meet growing customer electricity requirements. The LTAP translates the IEP analysis and acquisition strategy into a series of actions that sets the course for the first 10 years of the 20-year IEP horizon. The most recent LTAP was filed in June 2008 and is currently undergoing review by the BC Utilities Commission (BCUC).

In order to produce the IEP and LTAP, BC Hydro consults with a wide range of parties, including a provincial advisory committee, regional stakeholders, First Nations, and customers all across the province.

### 2008 Long Term Acquisition Plan

On June 12, 2008, BC Hydro filed the 2008 LTAP Application with the British Columbia Utilities Commission (BCUC). The purpose of the 2008 LTAP is to update the 2006 LTAP, which was filed with the BCUC as a part of the 2006 Integrated Electricity Plan (IEP). BC Hydro's 2008 LTAP Application is currently undergoing a regulatory review by the BCUC.

Since the 2006 IEP was filed, there have been a number of developments that have affected BC Hydro's electricity planning landscape, including the Provincial Government's *BC Energy Plan*. The 2008 LTAP addressed the *BC Energy Plan* direction in the application to the BCUC.

The following were outlined in the *BC Energy Plan* and are examples of policy that provided direction to BC Hydro energy planning:

- B.C. will be self-sufficient by 2016
- B.C. generation will continue to come from generation sources that are at least 90% clean and built in the Province
- New generation resources must offset their greenhouse gas emissions
- Coal must capture and sequester all carbon emissions
- No nuclear power

### **Comparing and Evaluating Resource Options**

As part of the 2006 Integrated Electricity Plan and Long-Term Acquisition Plan (2006 IEP/LTAP), BC Hydro developed a Resource Options Report that provided a resource options inventory used to assess the cost, timing and availability of a variety of options to meet the anticipated future customer load requirements.

This inventory was partially updated for the 2008 LTAP. This work updated supply-side resource options which have been impacted by new government policy, or whose availability and cost have materially changed since the 2006 IEP/LTAP, and which materially impact the planning analysis. The resources updated were:

- Small hydro
- Biomass
- Wind
- Geothermal
- Coal
- Large hydro
- Natural gas

For these resources that are commercially available in B.C., BC Hydro updated the energy and capacity contribution and the cost of energy generation. BC Hydro also looked at whether or not there had been significant technological changes since the 2006 IEP/LTAP. Using this updated information, the 2008 LTAP looks at the range of resource options and conservation initiatives in conjunction with the long-term load forecast and examines the costs and benefits, as well as the risks and uncertainties, and ultimately proposes the commitments that BC Hydro will make during the next two to three years to meet future demand.

### **Engagement Process**

Similar to the process undertaken as part of the 2006 IEP/LTAP, the engagement process for updating the 2008 LTAP resource options information took place from July 2007 to December 2007 and included three stages: a scoping session to confirm the scope of the targeted update and methodology to undertake the work; resource specific engagement through one-on-one meetings, phone calls and group meetings to carry out the 2008 LTAP ROU work; and a **results session** to report on the findings. Input received from participants was used to confirm the scope and methodology of the targeted update, to guide the work, and to help ensure the accuracy and validity of resource data for each resource type examined.

Participants included project developers and proponents, customer groups, environmental groups and First Nations.

**For further information please refer to the 2008 LTAP Application at [bchydro.com/iep](http://bchydro.com/iep)**