2008 Long Term Acquisition Plan (LTAP) and Power Acquisitions Calls for Power Intervenor Session

Nov 14, 2007
AGENDA

◆ 2008 Long Term Acquisition Plan (LTAP)
  ■ LTAP Context
  ■ LTAP Components/determinations
    • Comments
  ■ LTAP Process
    • Comments
    • Intervenor Engagement Options

◆ Break

◆ Power Acquisitions
  ■ Call for Tender Processes
2008 LTAP Context

- 2006 IEP/LTAP filed in March 2006
- BCUC Decision released May 2007

Planning cycle

2006 Integrated Electricity Plan/Long Term Acquisition Plan

2008 LTAP

Integrated Electricity Plan/Long Term Acquisition Plan

Comprehensive planning document includes Long Term Acquisition Plan (Two Year Cycle)

Update to the 2006 LTAP based on new information (Two Year Cycle)

Implementing Energy Plan 2

Reliable power, at low cost, for generations. Reliable power, at low cost, for generations. Reliable power, at low cost, for generations. Reliable power, at low cost, for generations.
2008 LTAP Context: Considerations for Targeted Update

◆ BCUC 2006 IEP/LTAP Decision
  ■ Agreement to address 2007 Energy Plan in next LTAP
  ■ Need for new resources accepted
    ▪ Need for further work on role of Burrard
  ■ More work required on assessing risk
  ■ Cost-effectiveness continues to be critical test

◆ 2007 Energy Plan
  ■ Target to acquire 50 per cent of BC Hydro’s incremental resource needs through conservation by 2020
  ■ Thermal generation GHG emissions to be fully offset or sequestered
  ■ 90% clean or renewable generation
  ■ Province to be electricity self-sufficient by 2016
    ▪ Special Direction 10

Reliable power, at low cost, for generations.
2008 LTAP: Components (handout)

◆ Expenditure Determinations
  ■ DSM Plan
  ■ Mica Unit(s)
  ■ Site C
  ■ Burrard

◆ Justification to Expenditure Determinations
  ■ Load Resource Gap
  ■ New Risk Framework
  ■ 2007 Electricity and Gas Price Forecasts
  ■ GHG Price Forecast
  ■ Resource Options Update
  ■ Portfolio Analysis
  ■ Contingency Resource Plans

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2008 LTAP VS. 2006 IEP Workplan

2006 IEP/LTAP Process

Step 1 - Establish Objectives

Step 2 - Load Resource Balance

Step 4 - Develop & Evaluate Portfolios

Step 5 - Portfolio Trade-Off Analysis

Step 6 - Long-Term Acquisition Plan

Load Forecast

Key Risks and Uncertainties

Attributes

Step 3 - Resource Options Inventory

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2008 LTAP Process

Step 1 - Establish Objectives

Step 2 - Load Resource Balance

Step 3 - Resource Options Inventory

Step 4 - Develop & Evaluate Portfolios

Step 5 - Portfolio Trade-Off Analysis

Step 6 - Long-Term Acquisition Plan

- Update
- No Update
- Limited Update
- Attributes
- Key Risks and Uncertainties
- Load Forecast
- Update
- No Update
- Limited Update

Reliable power, at low cost, for generations.
2008 LTAP Process - Inputs

Step 1 - Establish Objectives
Step 2 - Load Resource Balance
Step 3 - Resource Options Inventory
Step 4 - Develop & Evaluate Portfolios
Step 5 - Portfolio Trade-Off Analysis
Step 6 - Long-Term Acquisition Plan

Load Forecast
Key Risks and Uncertainties
Attributes
Step 3 – Resource Options Inventory

Targeted Resource Options Update

- Currently underway
  - Renewable Resources
  - Gas – with GHG Offsets
  - Coal – sequestered GHGs
  - DSM
  - Burrard’s Role
  - Site C
  - Transmission Requirements / Availability
2008 LTAP Process - Inputs

Load Forecast and Load Resource Balance

- 2007 Load Forecast
- Natural DSM
- Consider Rate Impacts / Price Elasticity
- Load Resource Gap
2008 LTAP Process - Inputs

Key Risks and Uncertainties

- GHG offset cost estimates
- Emission regulations
- Market price forecasts – gas and electricity
  - With GHG cost impacts
- Transmission Plans (ILM)
- Future electricity market development
Portoflio Analysis

- Gap analysis
- Availability and adequacy of resources
- Risk Framework
  - Major risks – Burrard/ IPP Attrition/ DSM/ Transmission
  - How do these risks compare? Biggest impact/ consequence?
  - How can they be managed?

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2008 LTAP Process – Portfolio Analysis

Portfolio Analysis: considerations cont’

◆ Capacity – need / value / availability
  ■ Mica/ Revelstoke
  ■ Waneta Expansion
  ■ Pumped storage – Jordan River
  ■ Curtailment Load
  ■ Need for transmission – ILM

◆ Other
  ■ Canadian Entitlement
2008 LTAP Process – Plan

LTAP Actions

◆ Components

◆ Contingency Plans
  ■ Supply side/demand side
  ■ Transmission – 5L83 timing
2008 LTAP Process - Timing

LTAP Timing

◆ Inputs ~ end of December
  ■ Load Forecast, GHG costs, G&E price forecasts
  ■ Supply Side & Demand Side Resource Options

◆ Analysis ~ January – March
  ■ Portfolio analysis and evaluation

◆ Report ~ April – May
2008 LTAP: Intervenor Engagement - Options

- Proposed – a number of sessions

<table>
<thead>
<tr>
<th>Options</th>
<th>Timing</th>
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<tbody>
<tr>
<td>Inputs</td>
<td>January</td>
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<tr>
<td>- Resource Options – currently underway</td>
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<td>- Market forecasts (load, G&amp;E prices)</td>
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<td>- GHG offset cost estimates</td>
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<td>- Initial Load Resource Gap</td>
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<td>Portfolio Analysis</td>
<td>February-March</td>
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<td>LTAP Content</td>
<td>April-May</td>
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Energy Planning website:

www.bchydro.com/iep

Or email us at:

energy.planning@bchydro.com
Upcoming Power Acquisition Activities

- Bioenergy Call
- Standing Offer Program
- Clean Power Call
Standing Offer Program

- Streamlined program to purchase power from small producers with a capacity of up to 10 megawatts
- Designed with the intention of reducing administrative burden for small power producers and simplifying the process and EPA
- SOP Application expected to be filed with the BCUC December 2007
- Stakeholder Engagement – 10 Information Sessions around the province, including a First Nations only session

Next Steps

- BC Hydro is proposing a negotiated settlement
- A session is scheduled to review the final documents on Nov 29th
- Anticipated applications in early Spring 2008
Bioenergy Call

- Competitive call for power with the primary fuel to be underutilized wood residues, in the form of:
  - sawmill residues
  - logging debris and
  - a growing supply of beetle-killed timber

- Working with Ministries of Forest, and Energy, Mines and Petroleum Resources on call parameters

- Targeting hourly firm energy and no flow throughs on fuel risk

Next Steps

- Plan to issue draft term sheets shortly followed by more engagement
- Call expected to be issued in early 2008
Clean Power Call

- Competitive process targeted for larger projects
- Open to Clean resources/technologies
- 5,000 gigawatt hour per year target
- Extended window for COD to accommodate larger projects
- Target in service date on or before 2016

Next Steps

- Draft terms and conditions released Nov. 14th
- Engagement session to review these draft documents planned for Nov. 27th
- Issue call in spring 2008
BC Hydro’s Typical Call Process
Where are the Calls in the Process?

The **Clean Power Call** released draft documents on November 14th.
The **Bioenergy Call for Power** will release draft documents shortly.

**Standing Offer Program** will host an engagement session later this month to review the changes made to the documents that will be filed with the BCUC.
# Summary of Important Dates

## Engagement Schedule – November/December 2007

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<td>Clean Power Call Engagement</td>
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Questions?

Power Acquisition's website:

www.bchydro.com/ipp

Or email us at:

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