Info Session Date and Location

February 15, 2005
Ramada Inn and Convention Centre, Pinnacle Ballroom
36035 North Parallel Road, Abbotsford, B.C.

Attendees

<table>
<thead>
<tr>
<th>Name</th>
<th>Interest/Organization</th>
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<td>M. Best</td>
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<td>Donald Costin</td>
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<td>Regina Dalton</td>
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<td>Elizabeth Gray</td>
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<td>Mary Helen Hatch</td>
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<td>Richard W. Haywood</td>
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<td>Laurie Hoekstra</td>
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<td>Ms. E. Hufel</td>
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<td>Andrea Mikulan</td>
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<td>Gerda Peachey</td>
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<td>Richard Peachey</td>
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<tr>
<td>Barry Penner</td>
<td>MLA for Chilliwack - Kent</td>
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BC Hydro/IEP Representatives

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<tr>
<th>Name</th>
<th>Organization &amp; Department</th>
<th>Role</th>
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<tr>
<td>Dorell Carlson</td>
<td>BC Hydro, Resource Planning, Power Planning and Portfolio Management (P3M)</td>
<td>Technical Resource</td>
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<td>David Ince</td>
<td>BC Hydro, P3M</td>
<td>IEP Presenter</td>
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<td>Chris O’Riley</td>
<td>BC Hydro, Risk Management</td>
<td>IEP Presenter</td>
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<tr>
<td>Arlene Schwetz</td>
<td>BC Hydro, Community Relations (CR)</td>
<td>Host/ Facilitator/ CR/ media contact</td>
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<tr>
<td>Lesley Wood</td>
<td>BC Transmission Corporation, Community Relations Specialist</td>
<td>BCTC Community Relations</td>
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<td>Elizabeth Panozzo</td>
<td>Consultant</td>
<td>Note Taker</td>
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Meeting notes are intended to capture main themes of the conversation. They are not intended to be a verbatim transcript of the proceedings.
Discussion Highlights

1. Introduction/Overview
Arlene Shwetz formally welcomed all attendees to the 2005 Integrated Electricity Plan (IEP) recognizing many familiar faces from last year. She introduced the members of the IEP team and provided a brief introduction to the purpose and process of the 2005 IEP and the importance BC Hydro places on receiving input from stakeholders regarding priorities and values in energy planning. She noted that feedback from the 2004 IEP has been incorporated into the current process. Attendees were informed that all relevant contact information is in the handouts provided and on the IEP website. Finally, she outlined the agenda for the session.

2. IEP Presentation
Chris O’Riley delivered a PowerPoint presentation to provide an overview of Integrated Electricity Planning. He described what an IEP is and explained why it is needed, particularly in the context of BC Hydro’s business planning and regulatory processes. He also outlined how BC Hydro develops an IEP, with a description of the key steps in the IEP process: establish objectives, demand/supply balance, inventory of resource options, portfolio evaluation and action plan. He then reviewed the 2004 IEP outcomes and highlights and feedback solicited from First Nations and stakeholders. Finally, he outlined the process and principles of stakeholder engagement for the 2005 IEP.

2.1 Questions and Discussion
Following is a summary of the points of clarification and discussion that took place during and after the presentation:

- Demographics and load trends for industry, commercial, residential. Generally, residential and commercial demand for energy (load) is growing faster than industrial load. The load is displaying more and higher peaks, especially in winter. This may be due partly to increased use of electric heat in buildings such as condos. Due to increasing demand, BC Hydro has an obligation to serve; therefore, reliability is the top priority.

- Residential construction trends and impacts on load. There was a discussion of trends such as increased house size in new construction, increased appliance use, type of heating installed and the resulting increases in load. Some long term solutions, such as targeting building codes and appliance manufacturers to encourage energy efficient technology and public education, were discussed and supported.

- Rate incentives to reduce peak loads. A time-of-use rate is currently an option for BC Hydro’s industrial customers. A stepped rate initiative for industrial customers is underway. The group expressed interest in a pilot project (to meter time of day use in clusters of residences) at various locations. Participants also supported further work in rate incentive initiatives.
• **Large vs small power projects.** The comment was made from the floor that economies of scale have favoured larger projects in the past. The picture is changing in BC in terms of economic trade-offs for power projects. Many opportunities exist for small power generation projects as they tend to have less localized impact than larger generation projects. Larger projects are usually more remote, requiring more transmission with associated costs.

• **Resource options - wind.** There was an explanation of which options are still emerging and which are viable for utility generation. Wind may be a viable option and the wind resource is attractive in the Peace River area and on the West Coast. A negative of wind power on the West Coast is that it tends to be located far from the load.

• **Clarification of stakeholder definition.** A concern was expressed over the breadth of representation (particularly the lack of local government representation) and the question was asked: who is included as a stakeholder? Everyone in BC is a stakeholder, including, but not limited to, community groups, representatives of customer class groups (for example, industrial) and First Nations. The participants were informed of the range of interest groups to be represented at the next day’s workshop, including the cities of Chilliwack (Mayor) and Abbotsford, Fraser Valley Regional District (FVRD), Independent Power Producers (IPPs) and First Nations.

• **Burrard Thermal.** Concern was expressed over expensive upgrades done to Burrard Thermal in the 1980s, yet it is now being used below capacity (3/6 units) and possibly slated for closure in the future. Burrard Thermal was renovated at a time when natural gas prices were lower, and it was considered an energy resource. However, it is no longer efficient and is being used only as a peaking back-up resource, for which it is well sited (close to load) and can kick in quickly. No final decision has been made regarding Burrard’s future.

• **Sumas Energy II (SE2).** Clarification was requested as to BC Hydro’s policy regarding purchasing energy in the future from SE2, if it is built. Contracting power from SE2 will not be an option for BC Hydro. It is not being evaluated as part of the IEP.

• **SE2 and BC transmission system issues/concerns.** The group had strong concerns over transmission system sovereignty and potential competition from SE2 with domestic power producers for BC transmission capacity. There was also strong concern expressed that any SE2 contract to wheel power through the grid into the US would, by virtue of that contract, displace the electricity supply to BC residents, thereby impacting domestic supply during peak demand periods.

• **Clarification of transmission issues.** Lesley Wood of the British Columbia Transmission Corporation (BCTC) provided the following:
  - SE2 has not been built and has no approvals.
  - BCTC has no contract with SE2.
  - While there is currently capacity to carry electricity from the proposed SE2, supply from BC comes first and will not have to compete with SE2 for use of lines. SE2 would have to develop its own transmission to BC’s system and pay for use.
Specific questions were asked of Lesley and the IEP team (post meeting answers included):

What is the capacity of the lines between Clayburn and Ingledow through which SE2 intends to move its power? How much of that capacity would SE2 need?

Post meeting answer: This question is hypothetical in that SE2 has not received the necessary approvals to be built and has not discussed its transmission capacity needs, in the event the facility is built, with BCTC.

Keeping that in mind, in the event that SE2 receives the necessary approvals and the owner wishes to move the facility's power through BC Hydro's transmission system, the owner would need to apply to BC Transmission Corporation for the necessary interconnection studies, build a power line to the point of interconnection and install all necessary safety and control equipment specified in the associated agreements. For more information on the interconnection process, visit BCTC’s web site: www.bctc.com.

If all of this takes place, SE2 would then need to apply to BC Transmission Corporation to move power through the grid. They would specify the capacity required in their request for long-term transmission service. At this time, we do not know what that capacity might be. BCTC would process the request based on that amount, by determining whether the transmission system could accommodate the request and, if not, what network upgrades would need to be constructed in order to accommodate the request.

If SE2 is built and applies to BCTC to purchase transmission line capacity to move their power, would they be able to purchase this capacity at peak times?

Post meeting answer: Yes. Power generators who wish to move electricity through the transmission system can purchase either long-term transmission via a service agreement, which covers all periods of the year, or execute an “umbrella agreement” with BCTC that would allow them to reserve short-term transmission on an “as available” basis. If a generator executes an umbrella agreement and if transmission capacity is available during the peak times, that generator can compete with other customers that also have umbrella agreements for that transmission capacity.

How long are the transmission capacity purchase contracts?

Post meeting answer: It varies. Both short-term (less than one year) and long-term (greater than one year) transmission contracts can be secured. The shortest term available is one hour and there is no upper limit; however, most long-term contracts range between one and five years.

If SE2 has a contract to move electricity at a certain time, and an emergency arises, can BCTC bump SE2 off the grid to supply power to BC residents?

Post meeting answer: If a power generator purchases firm transmission capacity and a curtailment is required, their firm transmission will be curtailed pro-rata with other firm transmission.
Has BCTC talked to SE2 or done any studies for them in the last six months?

Post meeting answer: SE2 has not requested long-term transmission service in the last six months. Applications for long-term transmission service can be viewed at Open Access Same-Time Information System (OASIS). For information on how to access OASIS, visit www.nwoasis.org.

If SE2 has a contract to move electricity in the B.C. grid and there is an emergency in the U.S. A. (like 2003 in eastern Canada/U.S.A.) that could cause a multi-jurisdictional outage, would BCTC still be allowed to disconnect from the U.S.A. grid?

Post meeting answer: In an emergency situation, BCTC would take appropriate steps to maintain and/or restore service. This may include, in major events, dropping service to either generators or customers (referred to as shedding load) or curtailing imports, exports or through transfers. The decision to curtail customers or shed load is made based on the most effective way to resolve the emergency situation and is not affected by ownership or the customer.

Has SE2 been offered a favourable rate to move power through the system?

Post meeting answer: As indicated in the responses to other questions, BCTC has no agreement with SE2 at this time. The tariff to wheel power through the transmission grid is set by the transmission tariff and "special deals" are not permitted.

- BC Transmission Corporation/BC Hydro engagement. The group was very pleased to have a representative from BCTC in attendance and encouraged BC Hydro to have representation at upcoming BCTC regional sessions. The attendees were informed of opportunities to participate in BCTC’s consultation process. For more information on the consultation process, visit the BCTC web site: www.bctc.com.

- Alcan power sales. Concern was expressed that Alcan’s power sales should continue to serve to meet domestic needs. Alcan currently has a contract to supply BC Hydro to 2010, after which it may sell power to any customer, domestic or not.

Note: Alcan has already given notice it will no longer be supplying BC Hydro.

- Criteria used in energy planning. A comment from the floor was made regarding the specifics of deterministic criteria used in detailed energy planning analysis, particularly relating to reliability. BC Hydro does use known criteria in these types of analyses, but at this level of planning it is important for BC Hydro to know stakeholders’ preferences and values around the many ways to develop reliable energy, regarding financial, social and environmental trade-offs.

- Canadian/American trade in energy - how will sovereignty over energy supply be affected? In the context of SE2 potentially connecting to B.C.’s transmission system, concern was expressed that, should BCTC sign onto Grid West, the province would lose its sovereignty over domestic energy supply. Specifically, there was concern that BC would lose its ability to disconnect from the U.S. grid in emergency situations. BC Hydro’s number one priority is reliability of supply for its customers and it would
3. **Group Exercise**

Arlene explained the group exercise to the attendees. Attendees were asked to consider what their values and preferences around energy resources are and to consider the kind of trade-offs they would be willing to make.

The participants were divided into groups to discuss and provide comments on the following questions:

1. In developing future electricity resources, what are the most important factors to you?
2. Which of these factors would you be willing to pay more for?
3. How much more or less?

After presenting their results to the whole group, each breakout group was asked to rank their top three factors. Following is a summary of the flip chart information and discussion reported back to the whole group by the leaders from the various breakout groups:

### 3.1 Group 1 Report

**The most important factors in developing future electricity resources:**

1. **Reliability**
   - Brown-outs in some areas.
   - Residents of Promontory Rd, Chilliwack have a particular problem with reliability.

2. **Environment/Conservation** - in discussion, these two categories were combined.
   - Education: increase conservation awareness.
   - Incentives: a suggestion was made that households be required to pay a higher rate for the use of electricity over and above a pre-established basic needs level (tiered rates).
   - Reduce consumption to reduce need to develop new resources.
   - Use of Power Smart products valued and to be encouraged.

3. **Cost**
   - No public subsidy for energy producers who transfer/export energy to the U.S.A.

**Other important factors:**

- Availability: support alternative methods of producing electrical energy, that is, personal energy generation for non-serviced locations.
- Alternative energy sources should have lower emissions, that is, pursue other alternatives to gas generation.
• Sell customer surplus to grid (net metering program is already in place).

• Avoid speculation and price gouging for example, Powerex problem with California.

**Willing to pay more for:**

• Green power.

• Reliability: cost, environment.

• Power Smart.

• Availability: cottage industry power generation.

• BC Hydro sensitivity.

### 3.2 Group 2 Report

**The most important factors in developing future electricity resources:**

1. **Reliability**

2. **Environment**
   - Low air emissions.
   - Structural security.
   - No more dams.

3. **Sovereignty, independence, self-sufficiency (#3)- especially from the U.S.A.**

**Other important factors:**

• Cost

• Proximity of generation to load (depending upon energy source - emissions concerns).

**Willing to pay more for:**

• Environment

• Reliability

• Sovereignty (no SE2)

• Proximity of generation to load - depending on the generation type (geothermal - yes, concerns about emissions)

**Discussion that followed the review of group results is summarized below:**

• **IPP Power production - impact on domestic energy self-sufficiency.** Concern was expressed that IPPs will sell power to the U.S.A. rather than BC Hydro, thereby hindering self-sufficiency. IPPs generally have contracts of 20-25 years with BC Hydro, after which they have the right to sell to any buyer. (Note: some contracts have
BC Hydro priority for renewal built in.) However, it is a practical/economic reality that their most likely customer after the expiry of the initial term of the contract will be BC Hydro.

- **Regional self-sufficiency.** A comment was made that pursuing regional self-sufficiency would maximize the benefits of load/source proximity.

4. **Summary of Meeting and Next Steps**

The group was informed that notes from tonight’s session would be posted on the BC Hydro IEP website. The results of this meeting would be related to the workshop that will be taking place the following day. While the workshop was fully booked, interested individuals were welcomed to attend as observers. Attendees were reminded of opportunities to participate in the fall IEP sessions.

An attendee thanked the IEP team on behalf of the group for providing this opportunity for public engagement and information and indicated that being involved in this stage of the planning was a positive experience.

Lesley Wood reminded the group of planning workshops and regional sessions being held by BCTC and welcomed participation.

5. **Action Items**

Follow up on concerns expressed by customers on Promontory Road, Chilliwack, (D. Costin, B. Penner, MLA) regarding brownouts, problems with reliability. Both participants have been contacted and given the required information.

**Contact Details**

- **Website:** [www.bchydro.com/iep](http://www.bchydro.com/iep)
- **Phone:** 1 - 888-224-9376 (BC Hydro)
- **Email:** iep.2005@bchydro.com