First Nations & Electric System Planning

Regional Meeting # 2
October 2005
Today’s Meeting Purposes

- To enhance First Nations participants understanding of electric system planning and regulatory process
- To report back from the two earlier sessions and update you on the current status of the IEP and Capital Plan
- To describe our understanding of what we heard and tell you what was done to address some of those comments
Today’s meeting purposes

• To report back on developments related to the non-integrated/remote communities

• To discuss opportunities for First Nations and Independent Power Production (IPP)

• To receive input on ongoing future engagement with First Nations
Today’s Agenda

• 9:30 – 9:45  Introductions, Opening Remarks

• 9:45 – 10:15  Electricity and Transmission Planning Overview
  - Recap of feedback from previous two sessions
  - 2005 IEP key comments, results of value based exercises
Today’s Agenda

• 10:15 – 10:45 2005 IEP, what was done with results, summary of PIEPC values/tradeoffs, strategies, etc.

• 10:45 - 11:00 Break

• 11:00 – Noon IEP Resource Strategies con’t PIEPC member comments – Discussion / feedback

• Noon – 1:00 PM Lunch (served in room)
Today’s Agenda

- 1:00 – 2:00 Transmission planning update
- 2:00 - 2:15 Break
- 2:15 – 2:45 Transmission policy expansion model
- 2:45 – 3:15 Next Steps - report out on remote communities - other
- 3:15 – 3:30 Closing comments
Overview of the Electric Utility Industry in B.C.
The transmission system transmits bulk electricity from where it is produced (generation) to where it is needed (e.g., load centres, industrial customers and interconnection points in the western interconnected system)
**Purpose:** To provide reliable power, at low cost, for generations

**Key Areas:**

**BC Hydro Generation:** owns & operates BC Hydro’s generation resources and owns the transmission assets

**Aboriginal Relations:** leads First Nations policy development and coordinates a one window approach on electricity planning

**BC Hydro Distribution:** responsible for supply power to domestic customers

**Powerex:** responsible for maximizing the benefits of electricity trade for British Columbians
Roles & responsibilities related to transmission

BC Transmission Corporation

- Plans, manages and directs investment in the transmission system assets
- Prepares the Transmission System Capital Plan, which is submitted to the BC Utilities Commission (BCUC)
- Operates and maintains the transmission system
- Works with BC Hydro’s Aboriginal Relations department to engage with and address First Nations interests/issues
BCUC Roles & Responsibilities

- Independent, quasi-judicial provincial regulatory agency
- Responsible for the regulation of BC’s natural gas and electric utilities in the public interest

**Mission:** To ensure that ratepayers receive safe, reliable and non-discriminatory energy services at fair rates and that the shareholders of those utilities are given a reasonable opportunity to earn a fair return on their invested capital.

**Key roles:**
- Oversee utility operations, including resource planning to ensure the public interest is served
- Sets rates - determines the costs the utility is able to charge, designs rates and sets the terms and conditions of service
- Approve projects (Certificate of Public Convenience and Necessity)
The Utility Planning Process

#1 - Policy Environment
- Energy Plan

#2 - Long-term Planning
- Develop Integrated Resource Plans
- IEP/REAP
- Capital Plan

#3 - Regulatory Oversight
- BCUC

#4 - Project Planning
- E.g. new hydro or transmission
Utility Companies planning roles & responsibilities

Utility Companies

- develop long-term resource plans including a forecast of future electricity demand (load forecast) and the resources required to meet the load
- prepare capital plans (list of projects required to maintain or expand the system) and/or acquisition plans (plans to buy electricity)
- submit revenue requirements (the money required to pay for operations, capital investment and shareholder returns) and rate applications (how the money will be collected) to the BCUC
- detailed project design & construction
Project Planning

Led by Project Proponent (Utility, IPP, First Nation):

- Preliminary project design & Consultation
  - initiate formal First Nations “consultation”

- Approvals & permits
  - BCUC - Certificates of Public Necessity & Convenience
  - Canadian/BC Environmental Assessment Office - Environmental Approvals
  - Water Licences, access to crown land
  - Other (MOT, DFO, Navigable Waters, etc)

- Final design and construction
Engagement Streams

Technical Workshops

Regional

Workshops
ROI / Attributes Preferences

Regional Meetings
Resource Strategies

Provincial

Mtg (Dec)

Mtg (Feb)

Mtg (Mar)

Mtg (Jun)

Mtg (Sep)

Mtg (Nov)

First Nations

Information Meetings

Workshop
ROI / Attributes Preferences

Regional Meetings
Resource Strategies

Filing
Resource Options

Biomass

Large Hydro

Small Hydro

Natural Gas

Wind
2005 General Feedback from Regional Sessions

- BC Hydro needs to address past grievances with First Nations;

- First Nations need support for capacity to understand resource options and their impacts fully;

- Consultation must be initiated very early both on policy and project development;

- Need to explore opportunities for revenue sharing with First Nations for any future energy developments
2005 General Feedback from Regional Sessions

• BCUC’s role and authority should be specific to First Nations’ legal consultation requirements;

• Government should consult with First Nations on the Energy Policy and revise it if necessary

• BCTC and BC Hydro should develop meaningful protocols to guide relationships with First Nations

• Broad scale IPPs acquisition of water licenses is a concern that First Nations want to see addressed

• BC Hydro needs to be pro-active in providing information at the community level on energy issues and energy management
2005 Detailed Regional Feedback

• Resource Options:
  – Small hydro, biomass and Power Smart were viewed as the most desirable options for First Nations in the regions

• Power Smart:
  – There were divergent views on Power Smart because of the barriers that many First Nations’ communities face that inhibit the realization of energy savings due to lack of information, poverty and lack of housing codes and standards on reserve.
• **Attributes:** First Nations placed high value on environmental impacts (fish and wildlife) and viewed impacts from an entire ecosystem perspective rather than site specific.

• As a result of their environmental interests, land and Green House Gases were the top two attributes that First Nations wanted considered.

• Cost was viewed as the least important attribute.
2005 First Nations Regional Feedback

- **Transmission**: Concerns were raised about the cumulative impacts of transmission lines (wildlife, land use).
- Concern about the amount of land alienated from use by transmission Right Of Ways
- Community members want more information on the health and safety issues related to transmission lines (EMF, aging lines and towers, shocks, etc.);
- Employment and economic development;
- Reliable power and interconnection;
Summary of Overview and Feedback

• First Nations believe the companies must make ongoing efforts to communicate and engage with them on policies and projects.

• First Nations want grievances and impacts addressed.

• First Nations want employment and economic opportunities.
2005 IEP process

- Basil Stumborg
Provincial IEP Committee
Member Comments

• Description of the PIEPC

• First Nations participants role on the Committee

• First Nations interests and issues

• Vision of future First Nation engagement on energy planning

• Highlights of committee discussion
Many First Nations are interested in exploring whether they can benefit from involvement in independent power production.
F2006 Open Call for Power

- F2006 Call documents and schedule expected to be released on BC Hydro website in December 2005 (www.bchydro.com/opencall)

- F2006 Call elements:
  - Target of 2400 GWh of firm energy from large projects and 200 GWh from small projects
  - Open to all commercially proven resource types, except nuclear
  - Target minimum of 50% of energy to come from “clean” sources
  - One stage, tendered bid process. Projects must meet pre-qualification requirements
First Nations and Independent Power Production

• What do you think is needed to help First Nations explore this opportunity?
Remote Community Electrification

- 2004 meetings with First Nations in 9 regions in B.C.
- Heard many concerns about lack of power reliability
  - Unscheduled shut downs due to weather events
  - Regular Brownouts
  - Power outages lasting up to five days
Remote Community Electrification

- **Reduced Economic Opportunities**
  - Insufficient power supply for industrial load
  - Inadequate supply reduces ability to attract new investment and is an obstacle for economic development
Remote Community Electrification

• Quality of Life/Social Impacts
  – Loss of yearly food supply
  – Education/schools
  – Health and safety
  – Living standards
  – Computer/communication disruptions
Remote Community Electrification

Concerns about environmental impacts of diesel generation:

- Green House Gas
- Local air emissions

Concerns about safety:

- diesel leaks
- transporting diesel
Remote Community Electrification

- Invited participants included:
  - Communities in BC Hydro’s non-integrated area
  - Communities that are served by Indian and Northern Affairs Canada (INAC) funded diesel generating systems
  - Remote communities on the grid that are serviced by a single line (end of line communities)
  - Federal and provincial government
The Non-Integrated Areas (NIA) Department in BC Hydro operates, maintains and manages all aspects of energy supply (generation, distribution, customer service) in nine (9) remote BC locations.

- **Locations and communities served are:**
  - **Bella Coola** - Anahim Lake, Bella Bella, Bella Coola and Hagensborg
  - **Queen Charlotte Islands** - Queen Charlotte City, Sandspit, Skidegate and Tlell, Masset and Port Clements
  - **Stikine** - Atlin, Dease Lake, Iskut (Eddontenajon) and Telegraph Creek
Remote Community Electrification

At this meeting we wanted to:

• Understand the nature and extent of the problems experienced by particular First Nations

• Discuss possible options to address the problems

• Document discussions and demonstrate need for a co-ordinated strategy to address electricity supply.
Remote Community Electrification

Several challenges were identified:

• **BC Hydro’s Obligation to Serve**
  – Inequities around three phase power policies
  – Why do some non-Aboriginal communities have it and First Nations do not?

• **Access to Financing**
  – A unique challenge for First Nations
  – Upfront capital costs for energy projects are difficult to raise even if long term savings are evident

• **Community Needs Assessments**
  – Need technical assistance
  – Incorporating community values
Remote Community Electrification

• High Costs
  – Full cost accounting for diesel (storage and transportation)
  – INAC funding does not take into account wiring houses up to code for distributed resources (i.e., solar)

• Conflicting Policies (Federal)
  – Kyoto Accord (GHG) vs. INAC infrastructure policies (i.e. diesel in First Nations communities)
  – Funding policies support wind (which requires diesel back-up) because it is an emerging technology, but not micro hydro because it is an established technology
Remote Community Electrification

• Energy Efficiency Programs
  – Not designed for off-grid communities
  – Ineffective for many First Nations communities

• Capacity
  – Understanding Options
  – Understanding/Evaluating Impacts
  – Technical expertise
  – Comprehensive community plans
Remote Community Electrification

• Community driven process
• Community Energy Plans
• BC Hydro facilitate grid connection discussions with First Nations and local area stakeholders
• Sole source contracts to First Nations to operate and/or maintain local facilities
• Partnerships (Manitoba Hydro model)
Remote Community Electrification

- BC Hydro provide funding or assist with technical expertise to complete Community Energy Plans
- Look at successful pilot projects i.e., Atlin
- Joint Ventures with BC Hydro
Remote Community Electrification

- Remote Community Electrification long term goal established and linked to the First Nations goal
- Program established to create plan and policy for providing BC Hydro service to all remote communities - First Nations and non-First Nations
- Initiating contact with communities and identifying need and possible solutions (including alternative energy)
Remote Community Electrification

- External Steering Committee with participation of provincial, federal government, First Nations, BC Hydro
- Workshop with remote First Nations communities
- Key informational interviews
- 5 to 7 First Nation community visits and tours
- Initiate or complete CEP with broad community consultation
Closing Comments

• Thank you for attending.
• Travel safely