

BCUC Transmission Inquiry



Presentation by Bill Andrews
To BCSEA Webinar

“The Future of Transmission for Renewable Energy in BC”
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Transmission Inquiry

- B.C. Utilities Commission
- 30-year transmission planning inquiry
- **required** by an amendment to the Utilities Commission Act
- main players: BC Hydro & BC Transmission Corp
- >100 intervening parties
- lots of First Nations involvement & issues

Groups jointly intervening

- BC Sustainable Energy Association
- Sierra Club of BC
- Forest Ethics
- The Pembina Institute
- West Coast Environmental Law
- The Dogwood Initiative
- David Suzuki Fndn
- (views expressed here are my own)

Inquiry's Statutory Mandate:

- [Utilities Commission Act](#)
- Section 5(4): Commission must conduct an inquiry
- to make determinations [i.e., **decisions**]
- re BC's infrastructure and capacity needs for electricity transmission
- for next 30 years (2010-2040)

Terms of Reference

- By Minister of Energy Mines & PR
- Issued December 2008
- Legally binding
- Draft report by June 30, 2010
- Very detailed

ToR stated assumptions

- Self-sufficiency by 2016 with insurance by 2026
- Transmission lead times are longer than generation lead times => need for planning
- Western Climate Initiative, renewable energy generation, transmission, US states, Alberta
- Electrification as climate action measure

ToR: Stated assumptions, p.2

- “BC’s potential as net exporter of clean, renewable energy” [2007 Throne Speech but not enacted (yet?)]
- Trade in electricity creates revenue
- Open access to transmission
- Potential long-term regional development of generation and long-term transmission needs

ToR: BCUC must *assess*

- Renewable generation potential by region within British Columbia
- Areas inappropriate for generation
- Generation resources needed to meet load and peak in future
- Future market opportunities for clean or renewable exports
- Most cost-effective, & most probable, sequence of development by region

ToR: BCUC must *determine* ...

- Need for
- Timing of
- Additional transmission infrastructure
- To allow
 - supply and delivery of electricity as ‘assessed’
 - improved transmission interties with US and Alberta
 - for continued optimization of BC electricity system
 - and export of surplus electricity

ToR: Must **not** determine...

- BCUC **not to** make **determinations** about
- specific routing
- technology
- specific projects
- (*Assessments* about routing, technology and projects may be OK)

ToR: BCUC **must consider...**

- Resource and economic development
- Avoiding spider-web of transmission lines
- Requirements like self-sufficiency, insurance, 90% clean, GHG targets, electrification for climate action
- Transmission dev't promotes econ. dev't
- Maximizing electricity trade revenue
- Government's **Hwy 37 'commitment'**
- Long-term economic expansion of the **northeast region**

Govt's Hwy 37 'commitment':

- “To transmission capacity north of Skeena substation at least to Bob Quinn Lake
- at least 287 kV
- partnership with private sector to fund it”
- [Normally, transmission additions are paid for by BC Hydro (or FortisBC) ratepayers]
- Lots of possible mines would use the low-cost electricity

Northeast region

- Horne River Basin gas play north of Fort Nelson
- Ft Nelson gets electricity from gas-fired plant and small transmission line from Alberta – considered inadequate
- Transmission line from BC grid to Ft Nelson and Horne River Basin under consideration already
- [presumably Gov wants to push grid extension to Horne River Basin]

Grid to Horne River Basin: electrification of gas works

- Developing natural gas deposits requires lots of energy – could be gas or electricity
- Electricity is more efficient than gas for pumps etc => lower net GHGs (?), GHG benefit worth the \$ cost?
- Existing law: Gas companies would get share of low-cost Heritage electricity, all rate-payers would pay for TL => fair/unfair? TL become stranded asset? gas companies \$ contribution?

Inquiry: Rough Schedule

- June 2009 – Panel decision on scoping issues
- Sept – BCH and BCTC file info on generation resource areas, demand scenarios, areas inappropriate for gen.
- Sept-Oct – workshops and scenario development
- Oct-Nov – regional sessions (public)
- Late-Nov – written submissions by BCH & BCTC
- Dec – workshops to identify info gaps
- Dec – written info requests (IRs)
- Jan 2010 – BCH & BCTC responses to IRs
- Jan-Feb – written subs by intervenors, IRs
- [Feb – Olympics]
- March – oral public hearing
- April – written arguments
- June – draft report
- July – written comments by anyone on draft report
- Aug (?) – written responses to comments by anyone re draft report
- Fall 2010 (?) – Commission issues final report

IMHO: Govt's aims

- Towers and wires:
 - Grid extension to Horne River Basin
 - Hwy 37 grid extension
 - Beefed up interties with US and Alberta
- Policy development/getting people thinking:
 - Electrification as action on climate change
 - Renewable generation coming on strong
 - Net exports (beyond self-suff. w/ insur.) into US renewable quota markets

Renewable Generation, context

- Commercial now: wind, biomass, run of river
- Coming (soon?): solar, ocean, geothermal, pumped storage (capacity), plug-in vehicles back to grid, etc., etc.
- Most (all?) IPP gen is for sale to BC Hydro
- IPP generation for export is legally possible but not (yet?) economic

Renewable Generation, context p.2

- Clean Call (still underway), Standing Offer Program (<10MW), Bio-energy Program Phase 1 and 2
- No other BCH future calls for power in the 2008 LTAP
- Not clear if future renewable generation in BC will be cost-competitive for US markets

Renewable Gen. and Inquiry

- Many IPP project controversies are below the Inquiry's level of detail
- Inquiry limited to “bulk” transmission (230 kV+) and “regionally significant” lines
- Inquiry to assess “areas inappropriate for generation” – but at coarse level

Key future unknowns

- Site C – yes or no?
- US Renewable Portfolio Standards and GHG regimes – big or small market for BC electricity exports?
- BC ‘generation for export’ policy?
- DSM pushes demand down v. electrification pushes demand up
- Energy-intensive economic growth in BC?

6 Ws of Transmission Planning

- Where from?
- Where to?
- When?
- What size?
- Who pays?
- What technology?
(e.g., AC or HVDC, overhead or underground)

(Some) First Nations Issues (or not?)

- Historical infringement of aboriginal rights and title by **existing** major transmission lines – legal issue: must it be ruled “in scope”?
- **BCH** is conducting ‘consultation and if necessary accommodation’ with FNs – must the **Commission** do ‘consult. & accom.’?
- Must the Commission rule (at the end of the Inquiry) on whether BCH’s ‘consult. & accom.’ has been legally satisfactory?

Web Links, p.1

- [BCUC homepage](http://www.bcuc.com/)
http://www.bcuc.com/
- [BCUC Transmission Inquiry](http://www.bcuc.com/ApplicationView.aspx?ApplicationId=226)
http://www.bcuc.com/ApplicationView.aspx?ApplicationId=226
- [Transmission Inquiry Terms of Reference](http://tinyurl.com/transmissionTOR)
http://tinyurl.com/transmissionTOR
- [BCUC re BCH 2008 LTAP](http://www.bcuc.com/ApplicationView.aspx?ApplicationId=192)
http://www.bcuc.com/ApplicationView.aspx?ApplicationId=192
- [Utilities Commission Act](http://tinyurl.com/bcuc-act)
http://tinyurl.com/bcuc-act
- [Hydro Power and Authority Act:](http://tinyurl.com/HydroPowerAuthorityAct)
http://tinyurl.com/HydroPowerAuthorityAct

Web Links, p. 2

- [BC Hydro Public Power Legacy and Heritage Contract Act](http://tinyurl.com/HydroPublicPowerLegacyAct)
http://tinyurl.com/HydroPublicPowerLegacyAct
- [Transmission Corporation Act](http://tinyurl.com/TransmissionCorpAct)
http://tinyurl.com/TransmissionCorpAct
- [Greenhouse Gas Reduction Targets Act](http://tinyurl.com/GHGReductionTargetAct)
http://tinyurl.com/GHGReductionTargetAct
- [BC Hydro Site C](http://www.bchydro.com/planning_regulatory/site_c.html)
http://www.bchydro.com/planning_regulatory/site_c.html
- [BC Hydro 2008 LTAP:](http://tinyurl.com/Hydro2008LTAP)
http://tinyurl.com/Hydro2008LTAP

Web Links, p.3

- [2007 BC Energy Plan](http://www.energyplan.gov.bc.ca/)
http://www.energyplan.gov.bc.ca/
- [BCTC homepage](http://www.bctc.com/)
http://www.bctc.com/
- [BCTC Transmission Inquiry page](http://www.bctransmission2040.ca/)
http://www.bctransmission2040.ca/
- [Carrier Sekani Tribal Council v. BCUC, 2009 BCCA 67](http://tinyurl.com/CarrierSekaniBCUC)
http://tinyurl.com/CarrierSekaniBCUC (leave to appeal pending)
- [Kwikwetlem First Nation v BCUC, 2009 BCCA 68](http://tinyurl.com/KwikwetlemBCUC)
http://tinyurl.com/KwikwetlemBCUC

for more info

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