

DRAFT

WECC Regional Planning Pacific Northwest/Canada to Northern California Transmission Project

Stakeholder Meeting of October 22, 2007

Economic Analysis Committee

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Economic Analysis Committee Report

- Committee analysis and report were prepared for the purpose of an initial economic screening.
- It is preliminary in nature, highly sensitive to assumptions selected, and results are intended to be indicative and to provide insight.
- Input assumptions were selected to test what-if situations.
- More complete studies are needed to determine the project viability.

Economic Analysis Committee Report

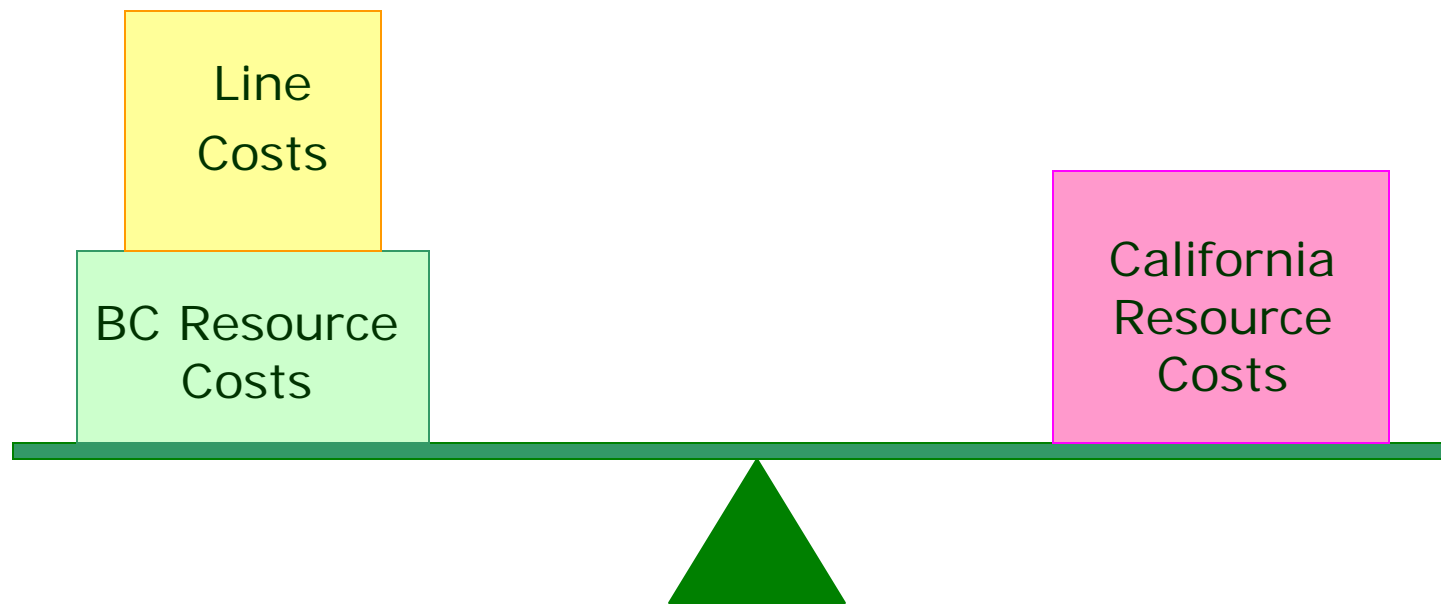
Key Findings:

- The benefits of a Canada/Pacific Northwest-Northern California Line appear greater than the costs under a variety of conditions. There are also scenarios with less than 1.0 benefit-to-cost ratio.
- Economics of the Line are sensitive to the cost and utilization of the line; and the capital costs, performance, availability and accessibility of renewable resources in the British Columbia, the Pacific Northwest and California.
- Grid efficiency improvements and the opportunity for regional seasonal power exchange may provide additional economic justifications. In-depth quantification of such benefits should be completed as planning proceeds forward.

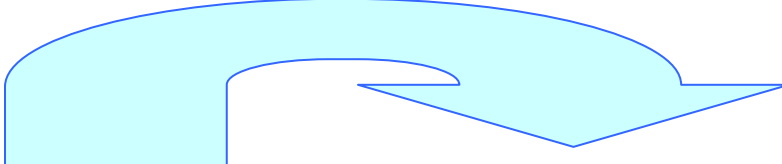
Questions and Comments

Backup Slides

Economic Analysis



Resource Costs & Performance



	Low	Reference	High	Reference Power Cost
California				
Wind Cost (\$/kW)	1500	2000	2500	\$101/MWh Wind
Wind Capacity Factor (%)	22	30	37	\$126/MWh Solar
Solar Cost (\$/kW)	2750	3150	3300	\$77/MWh Combined Cycle
Solar Capacity Factor (%)	30	40	45	
Combined Cycle Cost (\$/kW)		1000		
CC Capacity Factor (%)		78		
British Columbia				
Wind Cost (\$/kW)	1500	2000	2500	\$77/MWh Wind
Wind Capacity Factor (%)	32	40	48	\$69/MWh Small Hydro
Small Hydro Cost (\$/kW)	1800	2000	2800	\$73/MWh Biomass
Small Hydro CF (%)	36	44	48	
Biomass Cost (\$/kW)	1800	2200	2600	
Biomass CF (%)		90		

Assumes natural gas price at \$7.00/MMBTU (2006\$ levelized)

Some Benefit-to-Cost Ratio Outcomes

	BC Resource Installed Cost (\$/kW)	BC Resource Capacity Factor (%)	(1) CA CC	(2) CA Wind	(3) CA CSP	(4) CA RPS Mix
(A) 3600 MW BC Wind	1500	32	< 0	< 0	0.9	0.4
	1500	40	0.3	0.4	1.6	1.0
	1500	48	0.7	0.8	2.3	1.5
	2000	32	< 0	< 0	0.3	0.0
	2000	40	< 0	0.5	1.0	0.6
	2000	48	0.2	1.1	1.8	1.2
	2500	32	< 0	< 0	< 0	< 0
	2500	40	< 0	0.7	0.4	0.3
	2500	48	< 0	1.4	1.2	1.0
(B) 3600 MW BC Small Hydro	1800	36	< 0	0.5	0.9	0.6
	1800	44	0.3	1.2	1.7	1.3
	1800	48	0.5	1.5	2.1	1.6
	2000	36	< 0	0.3	0.7	0.4
	2000	44	0.1	1.0	1.5	1.1
	2000	48	0.3	1.3	1.9	1.4
	2800	36	< 0	< 0	< 0	< 0
	2800	44	< 0	0.2	0.8	0.3
	2800	48	< 0	0.5	1.1	0.7

Transmission Line Cost

- Transmission unit cost varies with line utilization.

