

SUMMARY Resource Options Update:
 NOTES Wood-Based Biomass

July 2, 2015
 2:00 – 3:00
 BC Hydro Dunsmuir

TYPE OF MEETING	Technical Engagement – Wood-Based Biomass Meeting #2
ATTENDEES	Michael Weedon, Marnie Plant (BC Bioenergy Network); Jack Buchanan, Amy Sopinka (BC Ministry of Energy and Mines); Bill Adams (Canfor); Mike Thompson, Graham Blakey (Catalyst); Leya Behra (CLEAResult), David Coney (Climate Action Secretariat); Karim Hirji (Columbia Power Corporation); Dennis Paradine (Forests, Lands and Natural Resource Operations); Mike Hopkins, Nguyen Pham, Ron Zeilstra (FortisBC); Sarah Wellman, Ester Berube (Metro Vancouver) Consultants: Derek McCann (AMEC Foster Wheeler); Rob Schuetz (Industrial Forestry Service)
BC HYDRO	Kathy Lee, Anne Wilson, Edlira Gjoshe, Susan Burton, James Grant
OBJECTIVES	Seek input from industry to inform the characterization of the Wood based biomass resource option
AGENDA	<ol style="list-style-type: none"> 1. Report out of draft results 2. Describe what has changed since March meeting
MATERIALS	Presentation slides

MEETING SUMMARY

BC Hydro welcomed participants to the meeting, and reviewed the agenda and objectives of the meeting. Kathy Lee walked participants through the slide presentation. The following provides a summary of comments and questions related to the associated slides.

Slide 8

It was clarified that the fiber availability reported here factors in sawmill closures and reductions in annual allowable cuts.

Slide 10

The consultant, Industrial Forestry Service (IFS), clarified that initial estimates on the delivered fiber cost presented in March were based on the consultant’s experience; however, participants in the March meeting expressed that higher competition would increase the price, and IFS reflected this feedback in the July update.

Slide 11

A participant commented that the numbers in this table look reasonable.

Slide 13

BC Hydro requested feedback on the assumptions shown on this slide, particularly, the operations, maintenance, and administration (OMA) costs. BC Hydro proposes to use the previous assumption of using 3.5% of capital cost as the OMA, but also described an alternative approach proposed by AMEC (the consultant), which divided the cost components into fixed and variable costs, and resulted in a higher combined costs. AMEC explained their costs are based on experience and literature review and acknowledged it is based on a very limited sample size.

Feedback received was that the OMA annual costs proposed by BC Hydro is reasonable, as long as the 3.5% is used for a 40 MW plant, as there was concern with transferring a “percentage of capital costs” to a different size plant.

It was mentioned by a participant that excellent information has been published by U.S. Energy Information

Administration (EIA) and International Renewable Energy Agency (IRENA), including chapters on biomass facilities and operating (OMA) costs. Could compare those sources of information to these assumptions. It was mentioned that the U.S. source may be more appropriate of the two to compare.

Slide 14

There was a concern raised with the stated volume that is accessible on the Coast and Caribou regions, as it may be difficult to bring the fiber in, because it can be difficult to get trucks out there and logging operators have been resistant to do so.

There was some discussion regarding the adjustment of field processes. A good example is the Quesnel area, as well as other areas where logging practices are being changed. It was suggested that a change in logging practice will take some time to increase fiber utilization, and perhaps this won't happen in the next year. It was acknowledged that resource option updates occur regularly and new information can be included in the next round. These costs are uncertain, and at this point not that attractive.

It was mentioned a major initiative is underway in the forestry sector to increase utilization of the residuals, and hopefully will find some forwarding activities over the next year.

Slide 15

It was clarified that the 503 GWh potential on the Coast is represented as one plant for planning purposes. Other regions with large fiber potential are represented by a number of projects, e.g., the standing timber potential in the North-East is represented as three projects, each with 307 GWh/yr., with the same capacity factor is assumed for all.

Slide 16

Clean wood includes wood captured from landfills that is not painted, treated, or contains any glue.

It was noted that other regional districts may also be a source, and perhaps could be included in the next update. For example Nanaimo, or Capital Regional District. Metro Vancouver is the only one currently selling some of its volume, but yes, other areas may have an opportunity.

It was clarified that two suppliers (recycling facilities) are currently selling to pulp mills, and has been accounted for in IFS's model.

Feedback from participants was that BC Hydro's estimate of the price for Metro Vancouver wood waste is about right. If other uses (such as district energy) become significant, then it may be good to reflect on the price; however, right now hog fuel price is a good proxy for wood waste.

It was commented that the title of the slide deck perhaps should be changed to reflect that we are not looking at efficiencies in existing facilities, so new wood-based biomass may be more appropriate.

It was clarified that although the use of clean wood still needs to meet regulations, it does not require a special air emissions permit.

A participant introduced an innovative technology, Biovertidryer, which can be used to dry biomass with increased efficiencies.

People were thanked for their participation.

Meeting close.

Note: The unit energy costs shown on Slide 15 are subject to change after the feedback from participants is considered.