

Yukon Energy Corporation (YEC) 2012-2013 GRA

Round 3 Resource Plan Information Requests of YEC
from
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Preamble

The questions below are the questions that Leading Edge has on the 2011 Resource Plan related documents. This information is sought so that Leading Edge can verify and test the numbers that are presented in the 2011 Resource Plan Update.

Questions originating from the Resource Plan Backgrounder (the documented presented to the public meetings):

LE-YEC-3-1	What is the annual distribution in monthly (or weekly) time steps of non-industrial load growth anticipated over the near term? Either typical monthly/weekly GWh numbers or percentages would be fine.
LE-YEC-3-2	What is the annual distribution in monthly (or weekly) time steps, of energy projected to be available from Mayo Lake Storage, Southern Lakes Storage, and Gladstone Lakes diversion as used in the modeling?
LE-YEC-3-3	What is the annual distribution in monthly (or weekly) time steps, of energy projected to be available from the 21 MW Tehcho wind farm as used in the modeling?
LE-YEC-3-4	What is the annual distribution in monthly (or weekly) time steps, of energy projected to be available from the Hoole Canyon hydro project as used in the modeling?
LE-YEC-3-5	What is the annual distribution in monthly time steps, of energy projected to be available from the 2 to 3 MW wood biomass plant in Haines Junction as used in the modeling?
LE-YEC-3-6	For the near term supply options block diagram please explain where the expandability of these options are considered – i.e. wind projects can be scaled from 2MW to as large as the site will accommodate – sometimes 100MW or more.
LE-YEC-3-7	<ol style="list-style-type: none"> 1. For the near term supply options capital cost vs. cost per kWh graph that displays 6 options in the form of coloured circles please provide the following: <ol style="list-style-type: none"> a. The annual generation load in monthly (or weekly) time steps that is used for each of these in the modeling (if not all 6 options use the same load please provide the different load distributions for the relevant options);

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	<ul style="list-style-type: none"> b. If there is a variation in the load used over a period years please provide the monthly (or weekly) information for each of these years; c. Please provide the Debt to Equity ratio used and the return on equity and cost of debt assumed (I assume capital costs are as indicated); d. Please provide the fixed and variable annual O&M costs used for each of the 6 options examined; e. Please indicate whether the cost per kWh indicated for each of the options is the LCOE and if so over what period of time; f. Please provide the cost of diesel fuel (delivered to Whitehorse) assumed over the time horizon of the analysis and what fuel efficiency is assumed; g. Please provide the cost of LNG (delivered to Whitehorse) assumed over the time horizon of the analysis, whether simple or combined cycle is assumed, and what fuel efficiency is assumed (provide energy requirement of vaporization separately if not incorporated within the above efficiency); and h. The level of secondary sales included in the modeling and the price assumed.
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Questions originating from the 2011 Resource Plan Overview (July 2012)

LE-YEC-3-8	The power loads for the Victoria Gold Eagle Gold project do not match the May 2012 electrical loads submitted by Victoria Gold to YESAB either on an annual or on a seasonal basis variation, is there any reason why not?
LE-YEC-3-9	What monthly (or weekly) energy consumptions were used by Yukon Energy in modeling the Carmacks Copper load?
LE-YEC-3-10	What monthly (or weekly) energy consumptions were used by Yukon Energy in modeling the Eagle Industrial Minerals (Whitehorse Copper tailings) load?
LE-YEC-3-11	What electrical losses (percentage) does Yukon Energy assume in delivering the required energy requirements to industrial customers?
LE-YEC-3-12	Please supply all of the monthly data used in Figure 5-2 (page 19) – some months are aggregated in the table below this figure.
LE-YEC-3-13	What cost is assumed for 5MW of wind DRUPS? Why is it not possible to use one of Yukon Energy’s existing diesel or LNG units required for capacity requirements for this purpose?

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LE-YEC-3-14	In Table 7.1 (page 43) please identify where the entire cost of the transmission requirements are included and where transmission costs are shared between projects where there is a common transmission requirement.
LE-YEC-3-15	In Table 8-1 (page 51) and elsewhere the statement “ <i>10.5 MW wind option was slightly less cost-effective at forecast loads</i> ” appears. Please provide all the assumptions (including whether DRUPS was included and at what cost) that support this statement.