Hydropower Pricing – Peer Review Response

The report presents a good summary of the power market in the region. It also identifies the project operational constraints related to the hydropower facilities and competing demands for the use of water in the Great Lakes.

We would like to thank the reviewer for his observations in this regard. The internal review team also felt the consultant (Synapse Energy Economics Inc.) approached the subject matter in a comprehensive manner and justified all the assumptions that they made.

The report establishes an acceptable methodology for evaluating the impacts that changes in the operations or water management may have on the power generation purpose of the project.

We concur no response required.

The report, in the very first sentence, states that the objective is to investigate possible improvements to the regulation of the outflows from Lake Superior to better meet the contemporary needs of all the water dependent interests in the Great Lakes Region. The study appears to outline a method to evaluate the power generation interest and what value to put to the foregone generation resulting from those changes in regulation, but falls short on the other interests (which are potentially quite broad) as well as actually providing any evaluation or conclusions for potential changed regulations on the actual power generation. I am not sure if the intent was to take this study to this level, but that was the impression I had as I started to read the first section and it never really got there.

The report also seems to have a considerable effort in summarizing and drawing conclusions from the Synapse energy outlook, but the other aspects of the study appear to fall short in comparison. I am not sure if this is by design or not.

The objective of the Hydropower pricing study was to determine the financial impacts on the Hydropower sector due to modifying flows. The information from this study is feeding into the Shared Vision Model (SVM), which was briefly described in the contextual leading piece as a preamble to the Synapse report. While there was a tangential reference to the other sectors we provided no further details as there were parallel efforts in all other four economic sectors (Commercial Navigation, Shore Protection, Municipal and Industrial Water Use and Recreation, Boating/tourism and Cruise Ships) and one ecosystem sector. The Study is determining the sectoral impacts through performance indicators that were described and evaluated in

hydropower pricing study. The context piece makes it clear to the reviewer how the information would be used to assess the financial implications for the Hydropower sector.

I did not find the only graphic presented in the body of the report particularly helpful. Second conclusion that a slight increase in hydropower generation can be realized from upgrades is correct, but likely not due to better scheduling to meet peak demands (this will produce greater revenues potentially based on the spread and time of year, but likely not more power generation). There are some general statements such as "a good portion of total generating capacity" and "constitute a significant…source of power" that are subjective as written and would be stronger in supporting the purpose of these statements if they are more quantifiable.

The graphic is important in that it provides context of how the information is used by the SVM in comparing the improvements sought by using the hydropower pricing based on Synapse study. The top graphic showed the pricing estimate based on updating estimates from earlier IJC studies in this subject area. The graphics simultaneously show pairwise comparison of regulation benefits emanating from two different plans and two key sectors embedded in the SVM. Figures 1 and 2 depict improvements in hydropower benefits from using the better estimates from Synapse study between the two plans that were tested at that time – Plans 77A and 77B_330.

The second conclusion in the context piece reflects the status of power plants notably Cloverland in the US. The plant is employing rather dated and less efficient equipment. The conclusion is making the point that modernizing the plant will result in higher efficiencies and associated power production.

The general statements made will be supported through further assessments and quantified through the SVM.

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