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April 25, 2014

VIA E-MAIL

Mr. Hollis Singh Manitoba Public Utilities Board 400 - 330 Portage Avenue Winnipeg, MB R3C 0C4

Dear Mr. Singh:

Re: Questions for Manitoba Hydro
Our File No. 16194 WSG

On April 12, 2014, Board counsel Bob Peters asked intervener counsel to submit requests for additional information and analysis from MH and/or LCA. On April 16, Green Action Centre submitted to Mr. Peters the attached pre-asks of MH, stemming from emergent evidence and issues. On April 23, PUB Chair M. Gosselin put on the record the questions he was asking MH (and IECs) to respond to (transcript 7628-7631) after noting "All requests need to be considered -- considered in light of available timelines. Additionally, Manitoba Hydro invited the panel to prioritize the analyses" (7629, lines 3-6).

Unfortunately, Green Action Centre did not see our input reflected in the PUB's requests, including those requests that make no significant time demands to answer. The answers, we believe, will provide crucial perspectives for interveners and the panel as concluding judgments are formed. Our questions are in limbo.

Accordingly, we are resubmitting our pre-asks in a more public fashion accompanied by the annotations in this memo as to the importance of each question to the process.

Question 1 – Update the graph and commentary from Appendix 12-2 of Manitoba Hydro's 2010-2012 GRA filing, Section 1.2.2.

Importance

Although the PUB has access to export contract prices, none of the interveners is privy to this crucial information. Constituents may be operating under false impressions based on well-publicized average pricing, which has promoted a tide of rhetoric about power give-aways to export customers. The figure and commentary put the export contracts in perspective, while still preserving CSI, by showing a price range in comparison with on-peak market pricing. This information should be quite easy to update.

Question 2 – Update climate change impacts and depict climate change costs in the context of comparative economic analysis.

Importance

According to the Terms of Reference, the comparative evaluation of alternative plans is to be based on a variety of factors, which include, prominently, environmental and climate change considerations as referenced in Manitoba laws and policies. Amongst these is "full-cost accounting" as prescribed in Guideline 1 of Manitoba's Sustainable Development Act. Yet, as illustrated by the list of updates just requested by the PUB, the detailed discussion and comparison of the economic and financial features of alternative plans often leaves climate change costs aside as considerations for another panel, another session, another day. They become add-ons to the more central economic weightings that are provided without climate change costs factored in. This separation may stem from, and contribute to, what Nicholas Stern has called "the greatest market failure the world has seen."

Our question 2.a. asks for a conspicuous depiction of the externalized and internalized economics of climate change costs in plan comparisons using the NPV metric. Since the CO2 costing of various plans has already occurred in the multi-account analysis, we assume it could be incorporated with relative ease into one or more of the updated comparison sets of plans requested by the PUB.

Our question 2.b. asks for material on Manitoba impacts of climate change that we understand MH has already assembled.

Question 3 – Comparison of flat load plans with other alternatives.

Importance

MH-156 provides NPV calculations for two flat-load scenarios – with and without Keeyask + 750 MW intertie, in support of Mr. Thomson's claim that the PDP would be "wildly successful and profitable" as a merchant investment if contract terms could be preserved over the project lifetime (transcript 245, lines 16-22). However the NPV calculations exclude DSM costs and are not set alongside the MH proposals for comparison. Our question 3 asks that these two deficiencies be rectified on the record.

GAC reminds the PUB that in Order 92/13 (p. 15) it stated:

Of concern to the Board is that Manitoba Hydro may be unable to provide further alternative plans and scenarios as may be requested by the Board, independent experts or intervener consultants.

While Manitoba Hydro has explained its timelines to provide further alternative plans and scenarios, the Board will expect Manitoba Hydro to be able to model such alternatives and scenarios to permit critical examination.

Mr. Dunsky's April 24 oral testimony recommended "that Keeyask and other supply investments should be assessed primarily as merchant plants" (CAC Exhibit #62, slide 61). Mr. Chernick's written evidence has shown that, with a flat load, both the existing and new export contracts could be met from existing generation resources with only minor deficiencies for a few years in dependable energy and capacity (GAC Exhibit #13, p. 3-2) and that further generation should be justified on a merchant basis (pp. 3-3 to 3-4).

The flat load scenarios are serious contenders as alternative plans and pathways. By confining its attention only to updated variations of Manitoba Hydro's predefined set of alternatives without including flat-load alternatives in the comparative analysis, the PUB will be unable to fulfill its mandate.

Question 4 – Update MH-171 (revised)

Importance

MH-171 depicts graphically the wider provincial economics of alternative plans, including ROE for MH and payments to the Province. Our questions (a) seek clarification in interpreting the distinction between MH benefits and ROE and (b) seek a re-depiction of the comparative results if the costs of climate change were to be internalized in the plans under comparison through payments into a hypothetical climate change mitigation and adaptation fund at the rate of the social cost of carbon, i.e. how would the economics fare without a subsidy in the form of uncompensated climate change damage? We can simplify the request by restricting it to the comparisons under Level 2 DSM assumptions.

Question 5 – Willingness of MH to consult in the exploration of strategic questions.

Importance

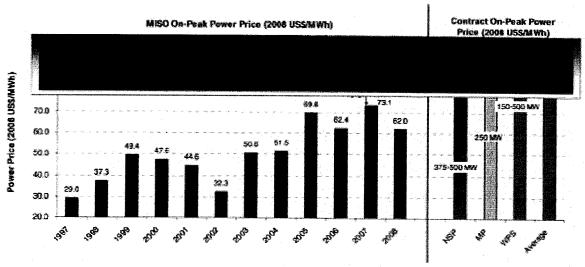
GAC believes there is ample evidence from the last-minute scramble and inadequate attention to alternatives within the rigid timeline of the formal NFAT review to demonstrate that earlier exploration of considerations and alternatives from informed stakeholders in the course of integrated resource planning would have been preferable. There is an opportunity to rectify that situation with respect to future multi-factoral issues and planning by following participation models from Manitoba and elsewhere. No extensive analysis from MH is required. Only a signal that they are willing to sit down and scope out issues, such as those listed, where informed consultation could be fruitful.

Green Action Centre believes that our pre-asks are not, for the most part, onerous to fulfill but are crucial to the fulfillment of the comprehensive review of alternatives prescribed by the Terms of Reference. We would invite Manitoba Hydro to identify any part of the requests that would be problematic for them to fulfill and initiate a conversation regarding alternative ways to meet the information need.

Attachment: GAC Pre-Asks for reconvened MH Panels

- 1. Reference: Appendix 12-2 of Manitoba Hydro's 2010-2012 GRA filing, Section 1.2.2 The Adequacy Of Price That Manitoba Hydro Derives (Or Will Derive) From Export Sale Transactions (Both Long-Term Firm And Short-Term Opportunity Sales)
 - a. Please update Exhibit 1-6 from Appendix 12-2, Section 1.2.2.

EXHIBIT 1-6
Comparison of Contract Prices with Historical MISO On-peak Spot Power Prices



Source: 1997-2000 MAPP Weekly Index; 2001-2005 Northern MAPP Weekly Index; 2005-2009 YTD MINN HUB Weekly Index from Power Market Week

Note: Contracted energy price with MP is the average of a fixed price and MHEB nodal price;
reflects only the fixed component of the contracted price

b. Please update the commentary in Section 1.2.2.

2. Reference: NFAT Business Case, Chapter 13, p. 45, lines 13-20:

For purposes of estimating the external cost of the Manitoba GHG emissions in the different plans — the difference between the estimated social cost of GHG emissions and the carbon charges plus coal taxes included in Manitoba Hydro's estimated expenditures — it is assumed that the social cost of GHG emissions would be \$40/tonne CO2 in 2014, rising to \$80/tonne CO2 by 2048 (in constant 2012\$). This is somewhat higher than Environment Canada's estimate of GHG damage costs, but less than its estimate of the willingness to pay to avoid the risks of uncertain but catastrophic effects. It is broadly consistent with the most recent U.S. estimates, again without any provision for the willingness to pay to avoid uncertain, catastrophic risks.

- a. Please provide a comparative table + a chart of plans 1, 5 and 14 with updated assumptions showing the NPVs of each plan (i) with a market valuation exclusive of GHG externalities, (ii) with GHG social costs of Manitoba emissions valued at \$40/tonne CO2 in 2014 rising to \$80/tonne CO2 in 2048 added in, and (iii) with GHG social costs of global emissions valued at \$40/tonne CO2 in 2014 rising to \$80/tonne CO2 in 2048 added in.
- b. Please provide any information you have assembled on the impacts of climate change on Manitoba.

3. Reference: MH-156 NPVs of flat load with and without Keeyask + 750 MW intertie.

Please provide a comparative table + a chart of plans 1, 5, 14 and the two flat load cases in MH-156 with updated assumptions showing the NPVs of each plan. [Note that MH-156 does not include any DSM costs for achieving a flat load. Assume a 3 cents/kWh DSM program cost (for savings above codes and standards) or substitute another cost that you think is more reasonable, with an explanation of the cost you choose.]

4. Reference: MH-171 (Revised)

- a. Please explain the difference between the embedded return on equity and the benefits to Manitoba Hydro by illustrating how and where they would affect Manitoba Hydro's financial statements and impact customers over time.
- b. Please redo the figure under the hypothetical assumption that GHG externalities are internalized by paying \$40/tonne CO2 in 2014 rising to \$80/tonne CO2 in 2048 into a climate change mitigation and adaptation fund for Manitoba GHG emissions under each plan.
- 5. Reference: March 27, 2014 Transcript, pp. 4298-4309. Discussion with Mr. Brandson and Mr. Wojcynski regarding COSDI and early participation in resource planning.

Given the uncertainties and changing circumstances around Manitoba Hydro's Preferred Development Plan and various alternatives and the potential energy burden of rising rates on vulnerable persons, is Manitoba Hydro prepared to engage in early stakeholder consultation, such as recommended by COSDI and found at Seattle City Light, BC Hydro and other utilities, on topics like the following?

- a. Strategic planning and reanalysis of future resource options, including generation, transmission and DSM.
- b. Rate design that incents conservation with mitigation options for customers with a high energy burden. [Note that both the PUB and MH have urged the adoption of conservation rates over the years but have failed to find mutually agreed upon mitigation measures for lower-income electric heating customers.]

- c. Natural gas analysis and strategies with respect to both gas generation and gas heating that optimize commitments to global and local reduction of GHGs.
- d. Other areas that may be identified.

Yours truly,

GANGE GOODMAN & FRENCH

Per:

William S. Gange

WSG