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September 27, 2013

The Public Utilities Board of Manitoba
Attention: Mr. Hollis Singh, Executive Director and Board Secretary
400 – 330 Portage Avenue
Winnipeg, MB R3C 0C4

Dear Mr. Singh:

**Re: Manitoba Hydro NFAT – Notice of Motion regarding First Round
Information Requests**

Thank you for the opportunity to respond to Manitoba Hydro's motion of September 24, 2013.

Overview

In the sections below, CAC MB address the specific objections of Manitoba Hydro.

However, a number of over-arching issues are raised by the Hydro motion which may have important implications for the conduct of the hearing and the public's confidence in its ultimate outcome. These issues include:

- given analytic deficiencies in the Hydro application how can the PUB ensure that a robust record is available for its deliberations?
- to the extent that any Hydro allegation of insufficient time is accepted as credible, does this suggest that an appropriately robust record cannot be achieved within the current hearing schedule? If so, should direction be sought from the Lieutenant Governor in Council?
- how will the PUB ensure that appropriate information relating to the socio-economic impacts of the preferred plan and alternatives on vulnerable Manitobans is available for its deliberations?
- how will the PUB ensure a thoughtful assessment of macro-environmental issues is available for its deliberations?

Allegations Regarding Insufficient Time

CAC-0120b & CAC-0121a

Information sought

CAC-0120b seeks the following:

Please recalculate the NPV for this "Plan 16" using real discount rates of 8% and process 10%.

CAC-0121a seeks the following:

Please calculate the NPVs for Plans 2,4, 5, 6, 7, 10, 11,12,13,14 and 15 using 8% and 10% real discount rates. Please provide the associated Economic Summary tables similar to those in Appendix 9.3, Table 001.

Hydro's objection

Manitoba Hydro does not allege that the information sought is irrelevant or immaterial to a determination in these proceedings. It objects on the grounds that these responses cannot be completed in the time allotted.

Response of CAC MB

Manitoba Hydro appears to misunderstand the CAC MB request.

All that is being requested is that Manitoba Hydro discount the expense and revenue flows using a different rate. This should not require re-running the models.

The question of using a different discount rate is not predicated on the economic assumptions (*i.e.* Manitoba Hydro's cost of debt or inflation) being any different. A response should only require that the calculations be executed with a different discount rate.

A central issue in this proceeding relates to the credibility of the discount rate assumed by Manitoba Hydro. It stands in sharp contrast to the discount rate employed by Hydro for projects such as Wuskwatim and would appear to bias calculations in favour of the preferred plan.

Given the possibility that the discount rate employed by Manitoba Hydro may be rejected, it is important for the PUB to have adequate insight into alternative scenarios. CAC MB has sought to remedy this deficiency in the record with a carefully limited request focused on a limited number of plans.

A response to CAC-0120b and CAC-0121a should not require excessive time or effort and can be completed using information that is readily available. For these reasons, CAC believes that a response should be provided.

CAC/GAC 007c and 011b

Information Sought

CAC/GAC-0007c seeks the following:

Specify by how much Gwh the Economic potential would have increased had the same level of non-energy benefits been included in EnerNOC's TRC calculations

CAC/GAC-0011b and c seek the following:

Using the same inputs, provide the same results (economic, market, achievable) assuming Manitoba Hydro was instead attempting to maximize savings at the same cost as avoided costs, i.e. So that the portfolio as a whole scored a B/C ratio of 1; Same as above, but for a total B/C ratio of 1.25.

Hydro's objection

Instead, it concedes that the requested alternative scenarios are outside of the scope of the consultant's work. Hydro suggests completion of the work in question would require more time to complete than is available in this process.

Response of CAC MB

Manitoba Hydro does not allege that the information sought is irrelevant or immaterial to a determination in these proceedings.

According to the PS Plan, Manitoba Hydro is actively promoting the non-energy benefits of energy efficiency measures, along with energy and bill savings. Manitoba Hydro also includes measurable non-energy benefits in its cost-effectiveness calculations, in particular for the Total resource cost (TRC) test (the same test that is used for screening by EnerNOC in its potential study). By not including non-energy benefits in its own TRC calculations, EnerNOC underestimates the economic and achievable potentials in Manitoba. Question CAC/GAC-0007c is intended to quantify the magnitude of this underestimation.

Also according to the PS Plan, Manitoba Hydro applies the TRC at the program level, with some latitude to add programs that are not cost effective (emerging technologies, hard-to-reach market segments). EnerNOC applies the TRC at the measure level, with no latitude to include measures (or programs) that are not cost-effective. Again, this results in underestimation of DSM potentials. The purpose of question CAC/GAC-0011b is to estimate the potential DSM increases that would result from allowing measures that are not cost effective while maintaining overall cost-effectiveness.

CAC MB and GAC appreciate the admission by Manitoba Hydro that it chose not to seek the advice of its outside energy efficiency experts on these central issues. Given this admission, CAC MB and GAC would ask that MB Hydro simply affirm in its response to these information requests that the information requested was not within the scope of its expert's retainer.

Information Allegedly Beyond the Scope of the NFAT

CAC-0037a

Information Sought

CAC-0037a requests the following:

Please confirm that the data provided in Appendix 11.3 of the current application regarding the unit export revenues is similar to that provided by Manitoba Hydro in its submission to the CEC regarding Wuskwatim. If not, what is the difference?

Hydro's Objection

Manitoba Hydro objects on the grounds that CAC MB:

is attempting to elicit a response which will permit comparison to information provided in the Wuskwatim CEC hearing which is not germane to this proceeding.

Response of CAC MB

CAC Manitoba seeks to assess how export price forecast (and their associated ranges) change from one forecast to another. The objective of CAC-0037a was to ask whether the calculations for this NFAT were done on the same basis as the ones for Wuskwatim in order to determine if it is reasonable to compare the two.

This request is relevant to the current NFAT proceeding as it will assist in the proper analysis of the calculations provided in the NFAT filing.

CAC MB requests that Manitoba Hydro provide a full response to CAC-0037a.

CAC-0185-0193

Information Sought

CAC-0185 to CAC-0193 request detailed information in order to determine the rate impact on low income persons.

Hydro's Objection

Manitoba Hydro objects for the following reasons:

While the Terms of Reference provide for consideration of "the impact on domestic electricity rates over time", the particular impact to low-income customers at this level of detail is beyond the scope of this proceeding. The detailed level of load forecast information sought has been requested in prior GRA's, and in some cases is not available. It is not an appropriate use of resources in this proceeding for CAC to

attempt to determine rate impacts specific to low-income customers. The impact on domestic rates presented by Manitoba Hydro will provide information as to rate impacts for all customers, without the need to consider breakdowns or explore interrelationships between housing types, customer income levels, and home ownership.

Hydro does not allege that it lacks the time to comply with the request.

The Response of CAC MB

The effect of the Hydro application would be to neuter an analysis specifically approved in Board Order No. 92/13. In effect, MB Hydro is seeking to review and vary Board Order 92/13.

In Order No. 92/13, CAC MB received approval to retain Dr. Simpson and Mr. Stevens. Their role is to research the socio-economic impacts flowing from rate increases including the impact of domestic rate increases on residential ratepayers and those on low and fixed incomes.

The June 28, 2013 submission of CAC MB indicated that it intended to:

Provide a profile of the electricity consumption levels of Winnipeg (Manitoba) households across Winnipeg (Manitoba) neighbourhoods, according to the income level of the neighbourhood, over the last 10 years (2002 to 2011) and assess the impact of hydro rate increases over that time period on the consumption levels of households and on their disposable income.

The profile obtained would provide the basis to model the impacts of the preferred plan upon ratepayers including those most vulnerable to rate increases.

The workplan prepared by Dr. Simpson and Mr. Stevens and found in Appendix C to the June 28 submission articulated the following key step:

Submit a request to Manitoba Hydro for information on the average annual level of electricity consumption of residential customers living in each neighbourhood and the average cost of that consumption for each of the years 2002 to 2011. Meet with them to discuss the request.

Without the information requested, Dr. Simpson and Mr. Stevens will be unable to effectively conduct their research into the socio-economic impacts flowing from rate increases and their ability to distinguish the impact on low-income Manitobans as approved by the Board will be compromised.

CAC MB acknowledges Hydro's suggestion that in some cases the information sought is not available.

Given the importance of the information requested to a Board approved project, Manitoba Hydro should be directed to comply with the information request. In circumstances where the information sought is not available, Hydro should be directed to consult with CAC MB prior to the filing of information responses with a goal to identifying alternative methods of complying

with the request.

CAC-0195

Information Sought

CAC-0195 requests the following:

What level of cost contingency is built into the capital cost estimate used for Bipole III (e.g. is it P50)?

Hydro's Objection

Manitoba Hydro objects to providing a response because, it states, the "Terms of Reference specify that Bipole III is excluded from the Terms of Reference."

The Response of CAC MB

The purpose of this Information Request was not to re-open the Bipole III debate. Rather, the request is aimed at determining the exposure of cost overruns and possible impacts on the debt/equity.

Manitoba Hydro has forecast various levels of debt/equity ratio depending upon the plan chosen (and the capital cost of projects varied across plans). However, the debt/equity will be impacted by Manitoba Hydro's total capital spending including spending on projects.

If this spending varies (is higher) it will also drive up the debt/equity ratio for the various plans to perhaps unacceptable levels over the near term.

Manitoba Hydro has not run any scenarios assuming higher costs for all capital projects. Bipole III is one of the largest "other" projects it is undertaking. The request will help to understand what level of contingency was built into the Bipole III costs and therefore to understand what exposure there is that cost overruns could impact the debt/equity even further.

The information sought is within scope, relevant and material to the proceeding and should be provided.

CAC-0220

Information Sought

CAC-0220 requests the following:

Please provide an analysis of the desirability of the forecasted end-uses of electricity, and how these end-uses may lead to positive socio-economic outcomes while avoiding

adverse effects.

Hydro's Objection

Manitoba Hydro objects to responding to this Information Request, stating that the "Terms of Reference do not contemplate consideration of the desirability of forecasted end-uses of electricity."

The Response of CAC MB

The analysis requested is an important element in considering the principles of sustainable development.

Given deficiencies in the Hydro filing, there does not appear to be a critical analysis of the socio-economic impacts of demand side and end-uses of electricity. CAC MB concludes that such an analysis is necessary in the NFAT review, particularly given the potential for avoiding additional supply through conservation opportunities.

CAC believes that such a consideration is in fact required. The Terms of Reference for the NFAT (Manitoba 2013, p.2-3) require an assessment of whether:

the Plan has been justified to provide the highest level of overall socio-economic benefit to Manitobans, and is justified to be the preferable long-term electricity development option for Manitoba when compared to alternatives.

As noted in PUB Order 92/13, socio-economic benefits and impacts have been defined by the Public Utilities Board as being: (PUB 2013, p.14):

*A critical analysis of the socio-economic impacts and benefits of Manitoba Hydro's Preferred Development Plan and alternative Plans. Specifically, a high level summary of potential effects to people in Manitoba, especially Northern and Aboriginal communities, including such things as employment, training and business opportunities; infrastructure and services; **personal family and community life**; and resource use."*
[Emphasis added]

The definition of socio-economic impacts makes clear the importance of critically examining impacts on people in Manitoba, including impacts on personal family and community life. A full consideration of these impacts cannot simply focus on the supply side. It must include the demand side and end-uses of the electricity. As noted in the original preamble, electricity is simply a means to social ends; people do not want energy, but rather the services provided by energy, including comfortable homes, personal transportation and entertainment.

CAC Manitoba ask that Manitoba Hydro be directed to respond to the question as posed.

CAC-0224a(i-iv)

Information Sought

CAC-0224 (i - iv) requests the following:

- a) *Please provide a preliminary analysis of*
 - (i) what DSM/Power Smart and efficiency improvement initiatives could be included in a package that as a whole could have an average cost equal to the corporation's marginal cost value;*
 - (ii) what demand reduction could reasonably be anticipated; and*
 - (iii) how such an approach may promote technological and social innovation in Manitoba.*
 - (iv) what implications that would have for the need for the proposed generation and transmission projects.*

Hydro's Objection

Manitoba Hydro does not suggest it lacks sufficient time to respond to the information request.

In its Notice of Motion, Manitoba Hydro objects to providing a response to CAC-0224a(i-iv) for the following reasons:

These questions relate to the Province's Clean Energy Strategy and are directed at debating specific programs, rather than considering the overall level of DSM. The impact of DSM has been addressed by presenting sensitivities of 1.5 and 4 times DSM.

Manitoba Hydro has also indicated it will use its best efforts to run an additional scenario with increased DSM, provided that the number of Information Requests does not preclude this work from being completed.

The Response of CAC MB

Manitoba Hydro inadvertently mischaracterizes the intent of the CAC MB information request. CAC does not agree with Manitoba Hydro's classification of CAC-0224a(i-iv) as failing to consider the overall level of DSM.

As noted in the NFAT filing, Manitoba Hydro has stated that it will only "pursue all those DSM opportunities with a levelized resource cost less than the corporation's marginal cost value" (Manitoba Hydro 2013, C.4 p.25-26).

According to Hydro, this approach is justified because (Manitoba Hydro 2013, C.4 p.25):

As each DSM opportunity is an independent decision, Manitoba Hydro assesses the economics of pursuing each energy efficiency opportunity individually. This approach is consistent with assessing each supply-side option on its own merits.

The approach put forward by Manitoba Hydro limits the potential for conservation and demand side management initiatives and is arguably inconsistent with assessing supply side options

on their own individual merits.

As noted in the Manitoba Clean Energy Strategy (pg. 19), when taken as a package:

These efficiency savings have cost Manitoba hydro, on average, just 1.9 ¢/kWh (kilowatt hour), well below the cost of other methods. This saved energy is then resold on the export market by Manitoba Hydro, earning profits and helping keep domestic rates down.

Likewise, in Chapter 4 (p.20) of the NFAT filing, Manitoba Hydro notes:

The 2013 - 2016 Power Smart Plan outlines an additional investment of \$83 million (2012\$) to achieve electricity savings of 510 GWh/year and 280 MW by 2015/16. Beyond 2015/16, Manitoba Hydro has budgeted an investment increasing to \$326 million (2012\$) overall and expects energy savings to increase to 1,552 GWh/year and 490 MW by 2027/28, which represents 4.9% of the forecast electricity load at the benchmark year.

It is arguable from these comments that DSM and conservation could be significantly increased while still keeping the average cost of DSM equal to or below the corporation's marginal cost value. For this reason, CAC-0220 is relevant to the consideration of the overall level of DSM and is well within the scope of the NFAT review.

A more equitable and strategic approach to DSM would be to consider DSM as a suite of DSM opportunities and develop a package of DSM whose average costs are equal to the corporation's marginal cost value. Such an approach could serve to stimulate DSM opportunities that are not yet individually cost efficient, all the while providing (or in this case conserving) electricity at a comparable rate and oftentimes without the negative socio-economic and macro-environmental costs of other forms of generation, and generally providing better and more lasting employment opportunities than capital projects such as hydro dams.

We note that for generating opportunities, the average cost is taken as well, as different times of year and different modes of generation cost different amounts. For example, supply side options such as peaking gas plants produce electricity at a cost much higher than the corporation's marginal cost value.

With regard to Manitoba Hydro's offer to "use its best efforts to run an additional scenario with increased DSM," more scenarios may be helpful if they serve to inform the debate. However, we would request that these scenarios address the potential for a positive contribution of DSM opportunities. As noted in Chapter 1 of the NFAT (p. 5):

"[a] demand side management (DSM) sensitivity and a DSM stress test are also included to demonstrate whether the Preferred Development Plan remains attractive under higher levels of DSM."

The concern with this approach is that it appears centred on ensuring that increased DSM does not reduce the attractiveness of additional supply options, rather than critically analyzing whether DSM could become a significant component in and of itself. Finally, there should be

no tradeoff between assessing DSM opportunities and responding to Information Requests; a proper DSM analysis should have been undertaken before the NFAT was submitted. Simply adding sensitivities – be they 1.5 or 4 times the predicted DSM potential – does not replace a constructive and critical analysis of DSM.

We request that Manitoba Hydro answer the original question, and include additional sensitivity analyses as necessary and informative to the broader critical analysis of DSM.

CAC-0237b

Information Sought

CAC-237b requests the following:

Can Manitoba Hydro confirm that the US environmental protection agency tolerable daily intake limit is one half of the Canadian limit?

Hydro's Objection

Manitoba Hydro objects to responding to CAC-0237 stating that:

Environmental reviews of proposed projects which are part of the Plan are specifically excluded from the NFAT. This question is more properly within the scope of the CEC hearings. A comparison of US and Canadian environmental standards is not relevant to the NFAT proceeding.

The Response of CAC MB

CAC MB does not concede that this question is outside the scope of this proceeding. A notable omission of the NFAT relates to the relative lack of discussion regarding methylmercury impacts upon the eco-system.

Intake limits, particularly amongst Northern Aboriginal persons, may potentially have large impacts on the persons themselves as well as their business opportunities, their resource use and their personal, family and community life. A better understanding of the tolerable daily intake limit and how it compares to other jurisdictions is relevant as it informs a high level summary of the potential intake effects as they relate to socio-economic factors.

However, CAC MB has sought acknowledgement in information request CAC-IR-0237 that Hydro's own projections suggest a post-impoundment risk that is more than 14 fold above the Health Canada tolerable daily intake. Assuming information request CAC-0237a is provided, CAC MB will not pursue a response to CAC-0237b.

Information Allegedly Best Suited for Alternative Forms and Beyond the Scope of the NFAT Review.

Hydro's objection to CAC-0231a

Information Sought

CAC-0231a requests the following:

Please provide a more complete description of the possible effects of, and range of possible consequences for lake sturgeon, recognizing and addressing the concerns raised by interveners in the OS process.

Hydro's Objection

Manitoba Hydro objects to responding to this Information Request, stating that the question is out of scope as it relates to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

As MIPUG has noted:

Questions that relate to risks posed by the potential future listing of Lake Sturgeon under the Species At Risk Act, and the workability or likely acceptability of Hydro's proposed mitigation efforts to regulators. Absent such information, it is not clear how the Board can assess the future risks to the ability to proceed with the projects and/or the potential impacts on the future operation or output of the projects.

CAC recognizes that the detailed environmental review processes are not within the scope of the NFAT review. That said, without some level of overlap a critical and fair consideration of the macro-environmental and socio-economic issues triggered by the NFAT review will not be possible.

In no way do the modest number of questions relating to macro-environmental matters achieve a material overlap with the EIS.

The PUB was mandated to consider macro-environmental and socio-economic impacts, which are defined in PUB Order 92/13 on page 12 and 13 as:

As per the Terms of Reference, macro-environmental is defined as:

A critical analysis of the macro environmental impacts and benefits of Manitoba Hydro's Preferred Development Plan and alternative Plans. Specifically this refers to the collective macro-economic consequences of changes to air, land, water, flora and fauna, including the potential significance of these changes, their equitable distribution within and between present and future generations.

As per the NFAT filing, Lake Sturgeon are under consideration for listing in the Species At Risk Act. The potential impact of the proposed plans on sturgeon could have significant effects culturally, economically, ecologically, socially, and economically.

While the fine details of the impacts of the proposed Keeyask hydro dam and the success of the proposed mitigation efforts are best left to the CEC review process, the socio-economic and macro-environmental impacts on Lake Sturgeon of the proposed plan and its alternatives are brought within the scope of this review by the definitions of macro-environmental and socio-economic and must be included in the NFAT process.

CAC MB believes that the question as posed should be answered. Alternatively, CAC will rephrase its original request in CAC-0231a to say the following:

Please provide a critical analysis of the macro-environmental and socio-economic impacts on Lake Sturgeon of the preferred development plan as well as its alternatives. Please include consideration of:

- *the collective macro-economic consequences of changes to air, land, water, flora and fauna upon Lake sturgeon, as well as the collective macro-economic consequences of changes to Lake sturgeon upon air, land, water and fauna. Please consider the potential significance of these changes and their equitable distribution within and between present and future generations.*
- *a high level summary of potential effects of impacts to Lake Sturgeon on the people in Manitoba, especially Northern and Aboriginal communities, including such things as employment, training and business opportunities; infrastructure and services; personal family and community life; and resource use.*

CAC-0234

Information Sought

CAC-0234 requests the following:

Please provide the two most recent evaluations of Manitoba Hydro performance under the ISO 14001 Standard.

Hydro's Objection

Manitoba Hydro objects to responding to this Information Request, stating that the question is out of scope as it relates to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

CAC MB notes that Manitoba Hydro made its performance under the ISO standard relevant by relying upon its adherence to the management system as evidence of its ability to manage environmental risk and improve performance (Chapter 1, p. 11, line 20). Given this allegation, it is open to CAC MB to test its validity by reviewing the most recent ISO reports.

However, the submissions of CAC MB will not be materially impaired by a non-response. CAC MB would not object to an answer by Hydro declining to provide the requested material.

Hydro's objection to CAC-0237a

Information Sought

CAC-0237a requests the following:

Can Manitoba Hydro confirm that its HHRA (Human Health Risk Assessment) in the Keeyask 515 suggested a post-impoundment risk that is more than 14 fold above the Health Canada tolerable daily intake? If this cannot be confirmed, please provide Manitoba Hydro's interpretation of the post-impoundment risk associated with Keeyask. (referenced CEC Ri 20, CAC Ri 0024a, CEC Ri 0019).

Hydro's Objection

Manitoba Hydro objects to responding to this Information Request, stating that the question is out of scope as it relates to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

Post impoundment impacts are upon the most notorious of the effects of hydro-electric developments upon people and the eco-system.

A notable omission of the NFAT relates to the dearth of discussion relating to methylmercury impacts upon the eco-system. CAC MB does not concede that this question is outside the scope of this proceeding.

Intake limits, particularly amongst Northern Aboriginal persons, may potentially have large impacts on the persons themselves as well as their business opportunities, their resource use and their personal, family and community life. A better understanding of the impacts of the construction of the generating station upon tolerable daily intake limit and how it compares to other jurisdictions is relevant as it informs a high level summary of the potential intake effects as they relate to socio-economic factors and to macro-environmental factors.

The question as posed will provide relevant information to the PUB without requiring any work beyond a confirmation of analysis Hydro has already done.

CAC Manitoba ask that Hydro be directed to respond to the information request.

CAC-0238a and CAC-0238b

Information Sought

CAC-0238a requests the following:

Can Manitoba Hydro point to any peer-reviewed articles concluding that stocking of Lake Sturgeon has been a proven mitigation method relative to Hydro-electric development? If so, please provide them.

CAC-0238b requests the following:

Please provide electronic links to all learned articles relied upon in concluding that "stocking is a proven technique for increasing sturgeon populations."

Hydro's Objection

Manitoba Hydro objects to responding to these Information Requests, stating that these questions are out of scope as they relate to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

The effect of denying this CAC MB information request would be to impair the ability of interveners and PUB to test whether the allegations of MB Hydro are supported by scientific research.

At page 22 of Chapter 2 of the NFAT filing, Hydro states:

Stocking is a proven technique for increasing sturgeon populations, and it is expected to increase regional populations in the Kelsey-Kettle reach of the Nelson River.

Given this bold allegation, it is open to CAC MB to test whether Manitoba Hydro has any peer reviewed as opposed to anecdotal support for this statement.

As explained in response to CAC-0231a, although a detailed environmental review process is not within the scope of the NFAT review, a certain level of overlap will be required in order to ensure a proper analysis of the macro-environmental and socio-economic impacts of the Keeyask preferred plan.

Lake Sturgeon are under consideration for listing in the Species At Risk Act. While CAC agrees that an indepth review of the proposed mitigation efforts is best left to the CEC process, the viability of Lake Sturgeon is directly linked to the socio-economic and macro-environmental factors contemplated in the terms of reference.

CAC-0238a and b do not request a detailed analysis into Manitoba Hydro's proposed stocking program. They do not require MB Hydro to perform additional analysis. Rather, CAC-0238a and b request peer-reviewed and learned articles concluding that stocking of Lake Sturgeon has been a proven mitigation method relative to Hydro-electric development. The purpose of these requests is to better understand the authority with which Manitoba Hydro states that "stocking is a proven technique for increasing sturgeon populations" so as to inform the NFAT review process.

CAC MB ask that Hydro be directed to answer this information request.

CAC-0238c and CAC-0238d

Information Sought

CAC-0238c requests the following:

Does Manitoba Hydro agree that potential construction effects on Lake Sturgeon from Keeyask are: Mortality or injury may result from stranding during cofferdam dewatering, exposure to blasting, entrainment on intake pipes, and increased harvest by workers. Health could be negatively affected by decreases in water quality resulting from instream construction or accidental spills. Disruption of spawning in Gull Rapids due to disturbance by construction activities and habitat loss/alteration. Increased noise and rapid changes in water levels and velocities may cause individuals from Gull Lake to emigrate upstream or downstream. Sediment deposition in Stephens Lake may alter sub-adult and young-of-the-year habitat.

CAC-0238d requests the following:

Does Manitoba Hydro agree that potential operation effects on Lake Sturgeon from Keeyask are: Complete loss of spawning habitat in Gull Rapids. Potential for fish to become stranded in isolated pools after spillway operation. The generating station will act as a barrier to upstream movements. Changes in downstream movements due to the presence of the generating station, Habitat alterations may reduce the amount of suitable spawning and young-of-the-year habitat in the reservoir. The amount of foraging habitat in the reservoir will increase in the long term, Increased harvest due to increased access to the area.

Hydro's Objection

Manitoba Hydro objects to responding to these Information Requests, stating that these questions are out of scope as they relate to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

The impacts of the Keeyask preferred plan on Lake Sturgeon are directly related to the macro-environmental and socio-economic factors under consideration in the NFAT review.

Lake Sturgeon are a staple in the lives of Northern Aboriginal persons in a number of ways including personally as they provide healthy sustenance in an area where access to affordable food is limited; economically as they provide economic growth and sustainability to fishing persons and community; and, culturally and socially as they are included in cultural ties to land and environment.

Manitoba Hydro's Business Case filing as well as Appendix 2.1 make numerous references to the importance of Lake Sturgeon, the impact of the proposed plan on Lake Sturgeon and the mitigation strategies in place to ensure the viability of the species.

CAC-0238 c and d are not intended to infringe on the proceedings currently being conducted by the CEC. That said, as articulated above, in order to ensure an informed NFAT review, a certain level of overlap will be required.

The intent behind CAC-0238 c and d is to gain general information on the impact of the proposed plan on Lake Sturgeon so as to allow for a more thorough understanding of potential impacts and provide for an educated comparison in the NFAT review.

The questions as posed will not require additional research or analysis by Manitoba Hydro.

CAC MB request that Hydro be directed to answer the question as posed.

CAC-0239a

Information Sought

CAC-0239a seeks the following:

Please indicate whether any of the Keeyask Partner First Nations have suggested that there are additional boreal woodland caribou other than the recognized population ranges near Thompson which might be affected by the project.

Hydro's Objection

Manitoba Hydro objects to responding to this Information Request, stating that the question is out of scope as it relates to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

The impacts of the Keeyask preferred plan on woodland caribou are directly related to the macro-environmental and socio-economic factors under consideration in the NFAT review.

It is clearly relevant to these considerations to know whether the Partner First Nations have identified the presence of a Species at Risk that might be directly impacted by the project.

With regard to the macro-environmental impacts, the disruption of a species has a clear and direct impact on the environment, the habitat of that species and other species with whom they co-exist.

With regard to socio-economic impacts, woodland caribou play a central role in the lives of Northern Aboriginal persons. The cultural and spiritual relationship that many First Nation persons have with the land and the environment is affected when the health and viability of species are put at risk.

The request as posed will not require MB Hydro to perform additional research or analysis.

CAC MB would ask that MB Hydro be directed to respond to the information request as posed.

CAC-0239b

Information Sought

CAC-0239b requests the following:

Assuming that the hypotheses that the summer resident caribou are boreal woodland caribou, does Hydro agree that it is likely this group of animals would be defined by Environment Canada as Not Self-sustaining?

Hydro's Objection

Manitoba Hydro objects to responding to this Information Request, stating that the question is out of scope as it relates to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

To clarify, the purpose of this request is not to incite a review of whether summer resident caribou are boreal woodland caribou, nor is it intended to delve into Environment Canada's process for defining species.

CAC-0239b seeks to better understand whether Manitoba Hydro has considered the potential that woodland caribou may be defined as "not self-sustaining" and whether it considers this to be likely. This response will assist in informing the impact that the label of "not self-sustaining"

may have on the preferred plan.

The request as posed will not require MB Hydro to perform additional research or analysis.

CAC MB would ask that MB Hydro be directed to respond to the information request as posed.

CAC-0251a

Information Sought

CAC-0251a requests the following:

Given that most adult lake sturgeon will be in the 800 to 1200mm range (considerably larger than 500 mm), please provide an evidence based estimate of the survival rate of lake sturgeon in the 800 to 1200 mm range. Please provide any peer reviewed studies relied upon for that estimate.

Hydro's Objection

Manitoba Hydro objects to responding to this Information Request, stating that the question is out of scope as it relates to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

Please see response to CAC-238c and d.

CAC-0251b

Information Sought

CAC-0251b requests the following:

Does Manitoba Hydro agree that no experimental studies have been conducted that examine the incidents of injury and mortality for lake sturgeon passing through turbines? If Hydro does not agree, please provide electronic references to any studies identified.

Hydro's Objection

Manitoba Hydro objects to responding to this Information Request, stating that the question is out of scope as it relates to the environmental review of the proposed projects, which is specifically excluded by the Terms of Reference.

The Response of CAC MB

Please see responses to CAC-0238a, CAC-0238b, CAC-0238c and CAC-0238d.

Miscellaneous Objections to Information Requested

CAC-0171

Information Sought

CAC-0171 requests the following:

Please explain why the annual electricity consumption growth forecast for Manitoba (1.6%) exceeds the annual electricity consumption growth forecast for the U.S. (0.9%) despite similar population growth forecasts in Manitoba and the U.S. and higher GDP growth forecasts for the U.S. compared to Manitoba.

Hydro's Objection

Manitoba Hydro objects to providing a response to CAC-0171 stating that without a source for the US forecast, it cannot comment on the apparent difference.

The Response of CAC MB

CAC would direct Manitoba Hydro to page 8 of its executive summary which reads:

Despite this trend the U.S. Energy Information Administration's Annual Energy Outlook 2013 reference case projects overall U.S. load growth of 28% between 2011 and 2040 (0.9% per year).

CAC MB would ask that Manitoba Hydro be directed to respond to the information request.

CAC-0222

Information Sought

CAC-0222 requests the following:

Please define what 'substantial investment in DSM/Power Smart and efficiency improvements to existing generation' entails, with attention to what DSM/Power Smart and efficiency improvement initiatives are included (assumed) in the preferred option, which potential DSM/Power Smart and efficiency improvement initiatives were considered but not included, and the rationale for those decisions.

Hydro's Objection

Manitoba Hydro objects to providing a response to this Information Request, stating that it "cannot comment of what the Province of Manitoba may have intended in using particular terms." Further, Manitoba Hydro states that:

For the purpose of the NFAT review, the overall level of DSM is relevant, but an analysis of particular programs included or excluded is not. These variations are captured in the sensitivity analysis.

The Response of CAC MB

The quote used in the original question, "substantial investment in DSM/Power Smart and efficiency improvements to existing generation" comes directly from Manitoba Hydro's Executive Summary. For this reason, defining 'substantial investment in DSM/Power Smart and efficiency improvements to existing generation' does not require commentary on Provincial intent.

Secondly with regard to the second part of Manitoba Hydro's objection, CAC reiterates its response provided above with regard to CAC-0224a.

Conclusion

CAC Manitoba appreciates the opportunity to respond to the Hydro motion.

Yours truly,



BYRON WILLIAMS
DIRECTOR

BW/sk