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August 8, 2012

Ms Cathy Johnson  
Secretary to the Commission  
Manitoba Clean Environment Commission  
305-155 Carlton Street  
Winnipeg, MB R3C 3H8

Dear Ms. Johnson:

**Re: Bi-Pole III proceeding before the Clean Environment  
Commission (CEC) – Application by CAC Manitoba to  
adjourn the start of the oral hearings**

### Overview

CAC Manitoba seeks to adjourn the starting date for the CEC hearings regarding the proposed Bi-Pole III hydro-electric transmission line.

In bringing this motion, CAC Manitoba acknowledges the complex balancing act the Commission must achieve to ensure the record is sufficiently robust to fulfil its lawful mandate while respecting the interests of Hydro and those reliant on its services.

The Order sought by CAC Manitoba achieves an appropriate balance.

### Relief Sought:

Relying upon section 2.08 of the *CEC Process Guidelines respecting Public Hearings*, CAC Manitoba seeks:

- an order adjourning the start of the Commission's public hearings regarding the Bipole III Transmission Project for 120 days or to such further time as the information before the Clean Environment Commission is sufficient for participants to know the case they must meet and to fully and fairly prepare;

### Grounds for the Motion

The grounds for the CAC Manitoba motion are:

- the record is materially deficient in that:

- critical elements of the environmental assessment do not meet minimally acceptable standards<sup>1</sup>;
  - key information is still under development and not available for review;
  - important environmental assessment activities have not yet been undertaken by Manitoba Hydro;
  - the responses to numerous important First Round information requests have not yet been provided;
  - First Round information requests central to the development of the CAC Manitoba case theory have not yet been forwarded to Manitoba Hydro.
- there is no reasonable possibility that the record can be corrected in time for funded participants to provide expert evidence and written submissions at least fourteen days prior to the scheduled October 1<sup>st</sup>, 2012 start date;
  - it is unclear when the information before the Clean Environment Commission will be sufficient for participants to know the case they must meet and to fully and fairly prepare;
  - the ability of the Commission to fulfil the terms of reference from the Minister will be materially impaired by:
    - the material deficiencies in the record as it currently stands; and,
    - the inability of funded participants to know the case they must meet and to fully and fairly prepare;
  - the magnitude of risk exposure highlighted by Manitoba Hydro in Chapter 2 of its BiPole III filing may be overstated when reviewed in light of of the 2012 Load Forecast;
  - independent assessment raises concerns regarding the reliability of Hydro's load forecasts on a going forward basis; and,
  - the Order sought appropriately balances the need for a robust environmental assessment with the interests of the Applicant.

### **The statutory provisions relied upon**

In its submissions, CAC Manitoba may refer to:

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<sup>1</sup> For insight into best practice and acceptable standards, please see the commentary in the Overview of the Record as well as the analysis found in Gibson 2006, Gibson 2011 and Bond 2012.

- the *Environment Act*, C.C.S.M., c. E125 including s. 1(1) a) b) c), 1(2), 2(1), 6(8) and 12<sup>2</sup> ;
- the *Sustainable Development Act*, C.C.S.M. c. S270 including Schedule A, s. 1(1), 1(2), 4, 5 and Schedule B, s. 1; and,
- the *Interpretation Act*, C.C.S.M. c. I80, s. 6.

### **The documentary material relied upon**

CAC Manitoba may make reference to:

- the filings in this proceeding as referenced in the attached *Overview of the Record* (Attachment A);
- the transcript of the pre-hearing conference, 16 July 2012 as referenced in the attached *Overview of the Record*;
- Manitoba Hydro's 2012 Load Forecast, Executive Summary (Attachment B);
- selected excerpts from *PUB Order 5/12* (Attachment C);
- *Rizzo & Rizzo Shoes Ltd (Re)*, [1998] 1 SCR 27 [*Rizzo Shoes*] at para 21 citing with approval Elmer A Driedger, *Construction of Statutes*, 2nd ed (Toronto: Butterworths, 1983 (Attachment D);
- *Baker v Canada (Minister of Citizenship and Immigration)*, [1999] 2 SCR 817 at para 28 (Attachment E);
- *Sustainability-based assessment criteria and associated frameworks for evaluations and decisions: theory, practice and implications for the Mackenzie Gas Project Review* (executive summary), A report prepared for the Joint Review Panel for the Mackenzie Gas Project by Robert B. Gibson 26 January 2006 (Attachment F);
- *Sustainability assessment: the state of the art*, Bond et al, 2012 (Attachment G);
- *Application of a contribution to sustainability test by the Joint Review Panel for the Canadian Mackenzie Gas Project*, Robert B Gibson, 2011 (Attachment H);
- A graphical overview of relevant CAC Manitoba information requests (to be filed in a subsequent motion by CAC Manitoba);
- such other materials as the proceeding may require and the Commission may allow.

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2 Regulations 163/88 and 164/88 may be cited.

**Conclusion**

On behalf of CAC Manitoba, we wish to thank you for the opportunity to make these submissions.

Yours truly,

A handwritten signature in black ink, appearing to read 'Byron Williams', with a horizontal line extending to the right.

Byron Williams  
Director

BW/sk

cc. CAC Manitoba  
Other interested parties

Attachments

## **Attachment A Overview of the Record**

### **The Hydro EIS**

On or about December 1, 2011, Manitoba Hydro filed its Environmental Impact Statement (EIS) relating to the proposed Bipole III transmission line project with the Minister of Conservation<sup>3</sup>. The EIS presents Manitoba Hydro's position:

on the issues, from choice of Project to meet the need for improved reliability to assessment of the effects of the Project on a host of biophysical and environmental factors<sup>4</sup>.

Hydro alleges that its environmental assessment as a whole and its cumulative effects analysis in particular is based on current best practices:

The environmental assessment process for the Project is consistent with provincial and federal environmental assessment legislation, guidelines and procedures, as well as **best practices**<sup>5</sup>. (emphasis added)

Hydro offers a curiously impoverished view of modern environmental assessment stating that:

the main aim of the environmental assessment is **to reduce or avoid potential** environmental effects such as those related to increased access<sup>6</sup>. (emphasis added)

Hydro restricts its alternative option analysis in Chapter 2 to the question of whether Bipole III "is considered the most **cost effective** solution to other alternatives to improve the system reliability."<sup>7</sup> (emphasis added) No biophysical or other socio-economic criteria are used to evaluate the alternatives outlined in Chapter 2<sup>8</sup>.

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3 Letter from the Minister of the Environment to the Chair of the Clean Environment Commission dated December 5, 2011.

4 CEC II-001j.

5 EIS, Volume 1, s. 4.2.1, p. 4-1, See also CEC III-104. "The CEA is based on the Scoping Document, Canadian Environmental Assessment Agency (CEAA) guidance (Cumulative Effects Assessment Practitioner's Guide 1999) and current best practices."

6 CEC II-5g. For contrast, please see Gibson 2006 and 2011 or Bond 2012. In discussing the objective of its Environmental Assessment Consultation Program (EACP), Hydro suggests the intent was a project which would have **minimal impact** on people and the environment. (CEC II-001e).

7 CEC-V-152. The standards Manitoba Hydro uses for transmission planning are the NERC Transmission Planning Standard. . . . These standards, however, do not directly dictate the need for additional transmission capacity from northern Manitoba to the southern load centre, nor do they indicate the level of vulnerability for which the mitigation is determined necessary. . . . Bipole III is considered **the most cost effective solution in comparison to other alternatives** to improve the system reliability. (emphasis added)

8 Hydro attempts to employ certain biophysical, socio-economic and cultural features to identify and evaluate preferred and alternative routes/sites in Chapter 7 of its analysis. No such approach is used for Alternatives Two or Three in Chapter 2.

## **The role of CAC Manitoba**

On or about May 14, 2012, CAC Manitoba was granted participant funding in order to review the EIS and to provide recommendations relating to consistency with best practices, application of adaptive environmental management principles and reliability expectations and alternatives as they apply directly to the project as presented<sup>9</sup>.

## **Concerns relating to deficiencies in the filing**

Correspondence from the CEC suggests significant concerns with the record as of June 2012:

We have met with officials from Manitoba Hydro to express the **concerns** of the Commission and of many participants with **significant deficiencies** in the Bipole EIS<sup>10</sup>. (emphasis added)

## **Ongoing challenges with the schedule are likely to continue**

In terms of the schedule, significant challenges have been experienced in terms of:

- repeated rescheduling of the date for the filing of First Round information requests<sup>11</sup>;
- Hydro's ability to respond to information requests within a three to four week time period<sup>12</sup>; and,
- the turnaround between the filing of proposed information requests with the Commission and the forwarding of these requests to Manitoba Hydro<sup>13</sup>.

Given this track record, material doubts exist regarding whether Manitoba Hydro can be reasonably expected to file Second Round information responses by August 31, 2012. This is especially the case given that many First Round information requests have not yet received a response<sup>14</sup>.

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9 Letter of the CEC to CAC Manitoba dated May 14, 2012.

10 Letter from CEC to Mr. Jason Madden, JTM Law dated June 14, 2012.

11 Please see the July 12 letter from CAC Manitoba to the Commission Re: Procedural, scheduling and timing matters related to the Bi-Pole III proceeding.

12 Please see the July 12 letter from CAC Manitoba to the Commission Re: Procedural, scheduling and timing matters related to the Bi-Pole III proceeding.

13 It appears that certain deficiency requests posed by CAC Manitoba on May 22, 2012 were not presented to Hydro until June 22, 2012. Information requests posed by CAC Manitoba on July 11, 2012 were not presented to Hydro until August 1, 2012. Information requests posed by CAC Manitoba on July 20, 2012 were forwarded to Hydro on July 27, 2012.

14 This commentary is not intended as criticism of hard working staff at Manitoba Hydro, the Commission or the various participants.

## **Material deficiencies continue to exist**

While many information responses have been filed and progress has been made, material deficiencies continue to impair the ability of participants to know Hydro's case, to prepare their case theory and to prepare evidence and submissions. A selected number of these material deficiencies are summarized below<sup>15</sup>:

### **Critical elements of the environmental analysis do not meet minimally acceptable standards**

- The cumulative effects analysis (CEA) appears inconsistent with best practice.

While Hydro denies that its CEA is deficient, flawed or has taken a narrow approach<sup>16</sup>, the preambles to a number of information requests suggest a materially different conclusion:

The cumulative effects assessment (Section 9.0) is very vague, generic and qualitative, with only checklists identifying potential cumulative effects between known and announced projects. The conclusion (... a small magnitude, medium-term cumulative effect is expected...) is not defensible on the basis of the CEA<sup>17</sup>.

The narrow definition, the limited spatial application and focus of the CE[A] leaves significant influences in and around the project footprint ignored. . . . It appears that the Cumulative effects assessment requires reassessing using more comprehensive and rigorous methods, and wider spatial and temporal boundaries<sup>18</sup>.

A quantitative assessment, as indicated by EIS Scoping Document Reference 7.5, of the environmental effects of all Project components and activities combined on elk and moose should be completed. This information would also strengthen the cumulative effects assessment which considers the overall effects of the Project in combination with other projects in the Project Study Area<sup>19</sup>.

- The assessment of human health risk is not consistent with best practice.

A preamble to an information request<sup>20</sup> and Health Canada's advice highlight the contrast between accepted best practices and Hydro's approach.

A large project such as this will result in both positive and negative socio-economic impacts that may affect overall community health status. MH identifies potential sources of effects on human health (EMF, dust, herbicides) but concludes there will be no significant impact. EMF was assessed in some detail but other sources of effects on

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15 Additional commentary on information limitations can be found in Attachment 1 to Appendix A.

16 CEC/MH-III-104.

17 CEC 347, preamble.

18 CEC/MH-III-104.

19 CEC IRS, July 27, MMF 19.

20 Initiated by CAC Manitoba.

human health were only qualitatively addressed or not addressed at all<sup>21</sup>.

Health Canada advises that consideration be given to potential effects on human health for all phases of a proposed project (i.e. construction, operation, modification, decommissioning and abandonment), and that baseline data, predicted project values, and cumulative effects be considered, as appropriate. Health Canada suggests that all information relevant to human health be documented in one section of the environmental assessment, and that all relevant assumptions, reference values, models, equations and reference citations be clearly stated<sup>22</sup>.

The scope of the HHRA (Item 6) should follow the standard risk assessment paradigm and include: (i) problem formulation (identification of hazards, receptors and exposure pathways, (ii) exposure management, (iii) toxicity (hazard) assessment, and (iv) risk characterization and risk management/mitigation.

The scope of the human health assessment should address the following potential exposure pathways related to human health:

- Air Quality Effects
- Contamination of country foods (fish, wild game, garden produce, berries etc.)
- Drinking and Recreational Water Quality
- Electric and Magnetic Fields Effects
- Noise Effects
- Human Health Risk Assessment (HHRA) and Risk Management
- Air, Water and Soil Quality Guidelines/Standards Used in HHRAs
- Toxicology (multimedia – air, water, soil)
- First Nations and Inuit Health

#### **Key information is still “under development” and not available for review**

- The **Access Management Plan** is still under development.

Hydro concedes that access “is a **serious issue**” in particular for large ungulates (moose, caribou) and fur-bearers. It states that “the **main aim** of the environmental assessment is to reduce or avoid potential environmental effects such as those related to **increased access**<sup>23</sup>. However, an Access Management Plan that will prescribe mitigation measures to reduce and prevent access onto the transmission line ROW is still under development and not currently available for review<sup>24</sup>. (emphasis added).

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21 CEC 346, preamble.

22 Health Canada 2010. “A Primer on Scientific Risk Assessment at Health Canada”:

23 MH-II-005g.

24 CEC/MH-II-005f and MH-II-005g.



As the MMF Consultants suggest:

The Access Management Plan has not yet been prepared for the Project. Therefore, details of how public access to roads and trails will be managed and how access roads and trails will be maintained are, as yet, unavailable. Without knowledge of how access management is intended to work, it is not possible to form an opinion of how effective the management might be. Given that the ROW has the potential to serve as habitat for VECs such as moose, elk and deer if left undisturbed, deterring human access is critical to mitigating the effects of this Project on habitat loss, fragmentation and mortality<sup>25</sup>.

- Concerns about “**large**” and “**significant**” moose populations decline in Game Hunting Areas (GHAs) 14 and 14A are still to be addressed.

According to Hydro:

Manitoba Conservation and Water Stewardship (MCWS) has also recently highlighted its concerns in this area through the TAC process for review of the Bipole III EIS. MCWS has stated that recent survey information for the GHA 14/14a indicates a **large decline** in local moose population. Manitoba Hydro is coordinating a meeting with Manitoba Wildlife Branch biologists **shortly**, to discuss the moose issue in this area and potential mitigation.<sup>26</sup> (emphasis added)

- The Vegetation Management Plan has not yet been prepared.

Manitoba Hydro’s vegetation management plan associated with the Project is being developed and implemented as part of construction and operation phase environmental protection plans (see Draft Environmental Protection Plan EIS Chapter 11, Attachment 11-1)<sup>27</sup>.

As the MMF consultants suggest:

Without knowledge of vegetation management specific to the Bipole III Project, it is not possible to form an opinion of how effective the management might be<sup>28</sup>.

- “Very useful” information regarding caribou will not be available until September 2012.

Manitoba Hydro indicates that:

The Supplemental Technical Report provides a preliminary comparison of disturbance regime assessments to rates of increase (Lambda), for a number of local ranges where survival and recruitment rates are available. These are preliminary and will be updated by **September 2012** after the results of this year’s recruitment surveys. It would be **very**

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25 CEC IRS, July 27, MMF 22. See also question CEC IRS, July 27, MMF 14.

26 CEC III-52. See also CEC/MH-III-050. Manitoba Hydro is meeting with Manitoba Conservation to discuss moose concerns in GHA's 14 and 14A. Mitigation topics such as routing, access management planning and 31 hunting closures will be considered further for the Bipole III Transmission Project. See also CEC/MH-III-093.

27 CEC/MH-II-006d.

28 CEC IRS, July 27, MMF 22.

**useful** to include this information, but it will not be available at the time of supplemental filing<sup>29</sup>. (emphasis added)

### **Important environmental assessment activities have not been done**

- Hydro has declined to perform a **community health assessment**<sup>30</sup>.

Manitoba's Community Health Assessment Guidelines state that:

The purpose of a community health assessment is to collect, analyze and present Information so that the health of the population can be **understood** and **improved** and to provide evidence to inform health service planning. It provides baseline information about the health status of community residents, tracks health outcomes over time, and helps to **identify opportunities** for disease prevention, health promotion and health protection<sup>31</sup>. (emphasis added)

To similar effect, as the preamble to an information request initiated by CAC Manitoba states:

The Socio-Economic Assessment (Section 9.3.3) utilizes red squares in Table 9.3.2 to Represent "potentially non-negligible negative cumulative effects" on personal, and community life. Again this is a qualitative assessment that could benefit substantially f[ro]m a community health assessment with the objective of identifying and mitigating potential adverse social effects, while specifically identifying community socio-economic and health benefits and opportunities for local residents<sup>32</sup>.

- Baseline air quality data metrics have not been provided<sup>33</sup>.
- The quantification of expected changes in air quality parameters as a result of project construction and operation has not been performed<sup>34</sup>.
- There is no Monitoring Framework for Socio-economic Effects or Heritage Resources.

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29 CEC Caribou 19.

30 CEC-MH-II-020b

31 Manitoba CHA guidelines are available "Community Health Assessment Guidelines", 2009. Manitoba Health and Healthy Living, 41pp.

32 CEC 347, preamble.

33 CEC 343 a) Please provide baseline air quality data metrics for nitrogen oxides (NOx), volatile organic compounds (VOCs), particulate matter (PM10 and PM2.5), ozone (O3) and other air quality parameters that may be impacted by the project.

34 CEC 343 b) Please quantify the expected changes in air quality parameters as a result of (i) project construction and (ii) project operation.

As the preamble to an information request initiated by CAC Manitoba states:

While the EIS includes a preliminary Biophysical Environment Effects Monitoring Framework (Appendix H), there is no corollary plan for Socio-economic Effects or Heritage Resources. This is an important gap given the differences in VECs and residual effects among environmental, socio-economic and heritage resources<sup>36</sup>.

**The responses to numerous important First Round information requests have not yet been provided**

A lengthy series of First Round information requests were provided by the CEC to Manitoba Hydro on July 27, 2012 and August 1, 2012. Key areas were canvassed including cumulative effects analysis and the need for and alternatives analysis. No responses to these information requests have been provided. Participants have not had the opportunity to file Second Round follow-up to these First Round requests.

**First Round information requests central to the development of the CAC Manitoba case theory have not yet been forwarded to Manitoba Hydro**

Many proposed information requests critical to the CAC Manitoba case theory and provided to the Commission on July 11, 2012 have not yet been forwarded to Manitoba Hydro<sup>36</sup>. Subject to the results of motion seeking to allow these questions to be posed to Manitoba Hydro, the ability of CAC Manitoba to know the case it must meet and to fully and fairly prepare is likely to be materially impaired.

**Manitoba Hydro's estimate of peak load in 2016/17 has been materially lowered**

During the course of the July 16 pre-hearing conference, Mr. Tymofichuk on behalf of Manitoba Hydro took the opportunity to comment on why Manitoba Hydro considered the preservation of the 2017 in-service date for Bi-Pole III to be sacrosanct<sup>37</sup>:

... we have a deep responsibility to all of Manitoba, and once characterized the DC system as **the lifeline of Manitoba**, not just the lifeline of Manitoba Hydro's system. So we are working as hard and diligently as we can to build in redundancy to secure electricity supply for all of Manitoba. And that's a schedule that we have set quite some time ago for the in service date, 2017. If the front end slips, the front end meaning the regulatory time line, we will be in great difficulty meeting that 2017 date, and we will be exposed for another year. (emphasis added)

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35 CEC 350.

36 The questions posed include CAC 1 c), 2 e), 3 a) - b0, 4 a) - g), 6 b), 6 c), 6 e), 6 f), 6 g), 10 a), 10 b), 11 b) - c), 12 a) - b) 16 a) - d), 17 b) - c), 17 d), 18 a) - c), 23 b) e), 23 h), 24 d) e), 25 b), 25 d) - e). In its forthcoming motion to forward these information requests to Manitoba Hydro, CAC Manitoba will attach a graphical overview of the information responses important to the CAC Manitoba case theory which have not yet been forwarded.

37 July 19, 2012 Transcript starting at page 119.

Following the Hydro Vice President's initial comments, the Chair used the opportunity to play Devil's Advocate in terms of the urgency of the 2017 in-service date:

If I can play devil's advocate, and I have raised this point with Mr. Bedford and with Ms. Neville, you have known for at least 20 years that you needed Bipole III, and now suddenly it is urgent.

Hydro responded that:

our load continues to grow, **the urgency grows with the load**. So there wasn't quite that urgency, we had **spare capacity in the two Bipoles**. (emphasis added)

There are three distinct aspects of Mr. Tymofichuk's answer that deserve a response:

(1) "our load continues to grow, **the urgency grows with the load**" - Hydro makes the point that what changes over time, is its exposure to the risk that both Bipoles will fail (as measured by the MWs of load that are at risk).

In Chapter 2 of the NFAT, Manitoba Hydro highlights a winter peak load deficit of 1500 MW by 2017.<sup>38</sup> Its calculations relied on the 2011 Load Forecast.

However, the more recent 2012 Load Forecast of Manitoba Hydro notes:

The Gross Total Peak forecast is down 158 MW in 2012/13 which is a **significant drop [as compared to the previous year's forecast] of 2 years of peak growth** (1 year = approximately 80 MW). . . . This resulted in a decrease to the peak forecast of 135 MW in 2012/13, 151 MW in 2020/21 and 171 MW in 2030/31. After modifying the peak to reflect changes in the energy forecast, final changes to the peak forecast were down 158 MW in 2012/13, down 184 MW by 2020/21 and down 134 MW by 2030/31<sup>39</sup>. (emphasis added)

Based upon this more current forecast<sup>40</sup>, the peak load forecast for Manitoba Hydro as presented in for 2016/17 is 173 MW less than the peak load forecast presented in 2011 Load Forecast<sup>41</sup>. For the 2017/18 year, the peak load forecast difference is 176 MW based upon the more current Load Forecast<sup>42</sup>.

(2) "we had **spare capacity in the two Bipoles**"

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38 Page 2-5.

39 2012 Load Forecast, Executive Summary, p. 4/79. Attachment B.

40 2012 Load Forecast, Executive Summary, p. 6/79. Attachment B.

41 2012 Load Forecast, Executive Summary, p. 6/79. Attachment B.

42 At page 2-5 of the EIS, it is unclear whether the deficiency of 1500 MW in 2017 refers to the 2016/17 fiscal year or the 2017/18 fiscal year. In either case the 1500 MW appears to have been reduced by more than 170 MW to account for the updated load forecast.

The existence of spare capacity was canvassed in some detail in PUB Order 5/12<sup>43</sup>. Manitoba's Public Utilities Board has suggested that "it is not clear what circumstance would require 100% output from these three plants (existing plants on the Lower Nelson) to meet only domestic demand."

(3) **the lifeline of Manitoba** - The issue, as stated in the NFAT and CEC/MH-V-155, is the concern that both lines or Dorsey will fail. As noted by the Chair - MH has known about the risks of an outage of BP I & II for a number of years<sup>44</sup>.

Similar to the probability of getting heads when flipping a coin, the probability of a BP I & II outage in any given year is independent of events in past years. While it is a risk which must be taken seriously in terms of risk assessment, the probability of an outage in 2016/17 is no greater than it was in 2011/12.

What does change over time is the magnitude of the exposure as measured by the MWs of load at risk. As noted, previously Hydro's peak load forecasts out to 2017 appear to have been significantly lowered.

### **The Manitoba PUB has raised concerns regarding the reliability of Hydro's load forecasts**

In evaluating, the credibility of Manitoba Hydro's assertions regarding load forecast, the Commission should be aware that the Manitoba Public Utilities Board has raised some concerns regarding the reliability of Hydro's forecasts of energy efficiency savings and of overall load.

During the course of the recent Hydro General Rate Application, Mr. Paul Chernick a witness for RCM/TREE graphed Hydro's projected DSM savings to the year 2025. Mr. Chernick identified a precipitous decline in DSM efforts and annual incremental savings<sup>45</sup>.

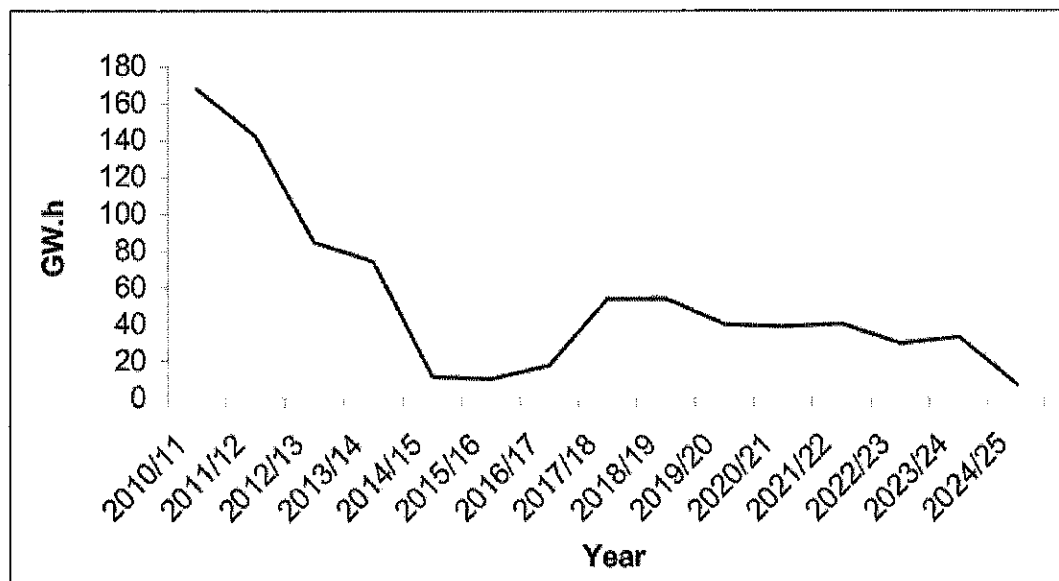
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43 See also *PUB Order 5/12*, p. 125/126 and p. 51. In its response to CEC V-155, MH denied that the need for lines carrying more power from the north as a result of future northern generation development is a contributing factor to the need for Bi-Pole III. This would obviously be a totally different rationale for building BP III as opposed to being for the reliability of domestic load argument that MH is currently using. It also is important to note that we are dealing with hydraulic power. With storage, one does not need the lines equal to the maximum capacity of the stations in order to be able to "deliver" all of the energy that is produced. Please recall exports are done in blocks ( e.g. Peak exports would be for 16 hours over the course of a day or week or longer). So if one shapes the energy it is still possible to deliver it all even if the capacity of the lines is less than that of the stations.

44 Since at least 2001, the date of the first Teshmont Study (CEC/MH II-023).

45 RCM/TREE Exhibit # 6, p. 43.

**Figure 1: Manitoba Hydro's Planned DSM Savings**



Source: 2009 Power Smart Plan (Appendix 9.1), Appendix A.3

In commenting on Mr. Chernick's overall evidence, the PUB observed:

there is projected to be a drop in savings in later years of the program. The Board shares the concerns raised by Mr. Chernick of a decline in both investment and savings. The Board **suspects that the opportunity for further reductions is significant**. However, the Board also realizes that projections extending fifteen years into the future are highly subjective<sup>46</sup>. (emphasis added)

The PUB also raised concerns that Hydro's overall load forecast was over optimistic:

It is the Board's view that MH's most recent domestic load forecasts for the longer term:

- do not adequately recognize the longer-term implications of the recent economic downturn;
- may well be overly optimistic given the stagnation and/or lack of growth over the last five years in the industrial sector; particularly when coupled with the actual pulp and paper plant closure and imminent smelter closures<sup>47</sup>.

46 PUB Order 5/12., page 164.

47 PUB Order 5/12, pages 122 and 123.

## Appendix 1 to Attachment A

### Selected Information and Data Limitations Acknowledged by Hydro

Manitoba Hydro has candidly acknowledged a number of information and data limitations related to the current state of the record. A summary of some of the limitations identified is attached for the purpose of additional context.

#### The Access Management Plan is not currently available for review

Manitoba Hydro is currently developing an Access Management Plan that will show the locations and current uses of existing known roads, trails and cut lines that could potentially be used for access to the right-of-way (ROW) for the transmission component of the project<sup>48</sup>.

Access is a serious issue and has been considered in the environmental assessment of the Bipole III project . . . The main aim of the environmental assessment is to reduce or avoid potential environmental effects such as those related to increased access. . . . The issue of new access has been considered in the EIS as an issue in particular for large ungulates (moose, caribou) and fur-bearers.

Manitoba Hydro is currently developing an Access management plan that will prescribe mitigation measures to reduce and prevent access onto the transmission line ROW. Specific access management measures and locations will be developed in consultation with MCWS<sup>49</sup>.

#### Key information about woodland caribou does not appear to be currently available

The Supplemental Technical Report provides a preliminary comparison of disturbance regime assessments to rates of increase ( $\Lambda$ ), for a number of local ranges where survival and recruitment rates are available. These are preliminary and will be updated by September 2012 after the results of this year's recruitment surveys. It would be very useful to include this information, but it will not be available at the time of supplemental filing<sup>50</sup>.

**Mitigation measures for boreal woodland caribou are being refined** by Manitoba Hydro and will be included in the EnvPP and will include enhanced vegetation management, maintenance of wildlife corridors and access management in core winter range and calving habitat intersected by the Final Preferred Route. **Monitoring and mitigation plans are currently being reviewed** by Manitoba Hydro in consultation with Manitoba Conservation and Water Stewardship (MCWS).

Manitoba Hydro will have continuing discussions with MCWS regarding caribou mitigation and monitoring time<sup>51</sup>. (emphasis added)

48 CEC/MH-II-005f. See also CEC/MH-II-0017 and CEC/MH-III-121.

49 MH-II-005g.

50 CEC Caribou 19.

51 CEC Caribou 001 hi).

Manitoba Hydro will not be filing studies from other utilities on ROW management. Manitoba Hydro is investigating alternative methodologies to complete ROW clearing of all vegetation, such as the retention of low growth vegetation such as grasses, forbs and shrubs, which will limit clearing effects and maintain some wildlife value. This has been stated as an environmental protection measure in the draft Environmental Protection Plan (EIS Chapter 11, Attachment 11-1). For caribou and moose, **Manitoba Hydro is considering establishing wildlife corridors to reduce line of sight and provide natural movement across the transmission line ROW in certain areas.** This alternative methodology is being evaluated for: safety during construction and operations, regulatory vegetation clearance requirements, and suitability for caribou and moose use as travel corridors<sup>52</sup>.

The vegetation management plan is being developed

Manitoba Hydro's vegetation management plan associated with the Project is being developed and implemented as part of construction and operation phase environmental protection plans (see Draft Environmental Protection Plan EIS Chapter 11, Attachment 11-1)<sup>53</sup>.

Quantitative Data is lacking to evaluate the effects of transmission line construction and operation on trapping

In order to assess the effects of linear disturbance or other anthropogenic disturbance further data would be required (i.e. specific information on trapper effort, number and location of trap sets relative to linear corridors or other anthropogenic disturbance)<sup>54</sup>.

Information relating to the effects of Conawapa is limited

The Bipole III EIS cumulative effects assessment considered the proposed Conawapa project to the extent that was feasible and relevant. Compared with many other projects considered in this cumulative effects assessment, information on the Conawapa project was somewhat more limited<sup>55</sup>.

Environmental audits are not available for analogous Hydro transmission projects

There have not been any formal environmental audits conducted for the construction and maintenance of Bipoles I and II<sup>56</sup>. . . For the Wuskwatim Transmission Project, no formal environmental audits have taken place to date.<sup>57</sup>

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52 CEC/MH-II-005b.

53 CEC/MH-II-006d.

54 II-19 a. Given the lack of quantitative data that could be used in assessing the effects of transmission line construction and operation, Manitoba Hydro conducted a pilot project under the Wuskwatim transmission project monitoring program to evaluate trapper success both in areas in close proximity to and away from transmission line construction (Manitoba Hydro 2012).

55 CEC/MH-III-091.

56 CEC II-2I.

57 CEC II-2I.



Analysis of bird strikes on analogous projects has not been undertaken

Manitoba Hydro has not studied the impact of Bipoles I and II on bird strikes in the Interlake region<sup>58</sup>.

No Air Quality Modelling has been done

No (air quality) modeling (sic) was done as the majority of the construction activities are in an outdoor environment, in winter months<sup>59</sup>.

Limits to the Habitat Survey

A detailed habitat survey will not take place along the Final Preferred Route (FPR) beyond that which was already completed<sup>60</sup> . . . . However, additional surveys for wildlife and rare plants will occur prior to construction. These additional data will be used for supplementing site-specific Environmental Protection Plan mitigation measures. . . . Many of the habitat associations examined for the Bipole III study area occurred at the macro scale..

Limitations to Information on Community Impacts

The Bipole III economic impact estimates have been derived from the Manitoba Bureau of Statistics (MBS) Economic Impact Assessment Model. The MBS model is based on Statistics Canada's Input-Output Model that is designed to estimate impacts on Manitoba and the Rest of Canada (ROC). It is not designed to estimate impacts on regions, communities or cities within the province. There is no comparable model for regions within the province. Furthermore, no meaningful methodology exists for scaling the provincial results down to the regional level<sup>61</sup>.

Chapter 8 indicates that the residual adverse effects will not be significant, however, this is based on the level of impact anticipated after implementation of planned mitigative measures, ongoing monitoring, and adaptive management planning. Please see CEC/MH-II-001hii and the socio-economic supplemental filing which includes a revised effects assessment on the personal, family and community VEC of public safety.

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58 Question CEC/MH-III-129.

59 CEC/MH-III-113

60 CEC/MH-V-167

61 CEC/MH-V-195

Field investigations for rare plants and communities have yet to be conducted

The **constraints** of the existing data sources used to identify these habitats includes the use of **secondhand information which can be incomplete** (e.g., specific rare plant locations), information that is general in nature with broad cover classes, and **often speculative data without basic or limited field observation. As such, field investigations for rare plants and communities will be completed** as pre-construction surveys in the effects area, where existing data sources may not detect these locations<sup>62</sup>. (emphasis added)

The need for more rigorous analysis relating to wolves

**Wolf monitoring was compromised** by both collar failures and chew-offs. It was also difficult to find wolves or packs that were associated specifically with local boreal woodland caribou populations<sup>63</sup>. (emphasis added)

With respect to habitat selection, **the wolf data do not lend themselves for resource selection functions (RSF) modeling due to small sample sizes** relative to specific evaluation ranges, and **lack of data for all seasons**, particularly during summer, when most caribou predation events occur. There is potential for this wolf study to provide valuable information to the collaborating agencies on broader ecological process and interactions between wolves and boreal woodland caribou sharing the same range. Presently, there are **insufficient samples** of wolves and caribou in the same or overlapping ranges<sup>64</sup>. (emphasis added)

The study team is evaluating the utility of additional wolf telemetry data and **would recommend a more rigorous distance to linear feature analysis**. Recommendations on this specific analysis are being developed and could be completed in early July 2012 for inclusion into the Supplemental Caribou Technical Report<sup>65</sup>. (emphasis added)

Limitation on the data available for the analysis of caribou

Based on the limited data available, known caribou mortality due to wolves is low. The cause of mortality is not known for all dead caribou; with only two caribou mortalities attributable to wolf predation for each of the Wabowden and Bog herds. Consequently **there is an inadequate sample** for the type of assessment conducted by McLoughlin et al. (2005) who had 55 samples of caribou that had died of predation. There are **insufficient data** to conduct such analysis at this time<sup>66</sup>. (emphasis added)

As none of these surveys were intended to determine caribou densities, and **no data** on distance from aircraft to groups were collected, **distance-based density calculations** are not

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62 CEC/MH-V-161.

63 CEC 6, p. 11/62.

64 CEC 6, p. 11/62.

65 CEC 6, 12/62.

66 CEC 7, p. 14/62

possible<sup>67</sup>. (emphasis added)

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67 CEC 14, p. 25.