

Please find below Manitoba Wildlands Information Requests for the Bipole III CEC proceedings as of July 20, 2012.

1. MWL Projected In-Service Date

Reference:

“...construction is planned to commence in the fall of 2012 with a projected in-service date of October 2017.” (EIS Ch1-1)

Preamble:

CEC hearings are scheduled for fall of 2012, with the CEC report following, and the license is not likely to be issued until 2013.

Request:

What is the new timeline to start construction and the targeted in-service date?

2. MWL Teshmont Consultants Reports

Reference:

In chapter 2, reference is made to 2001 and 2006 studies by Teshmont Consultants in regards to the probability of converter and/or transmission failure due to tornado, wind, fire, ice storms, etc. (EIS Chapter 2-3)

“Teshmont Consultants Inc. 2001. Probability of Catastrophic Outages of Bipole I and Bipole 2 of the Nelson River HVDC Transmission System, Volume 1 - Main Report. October 2001.

Teshmont Consultants Inc. 2006. A Weather Risk Assessment of the Existing and Proposed HVdc Transmission Lines. October 2006.”
(EIS Chapter 2-22)

Preamble: We recognize that Manitoba Hydro has recently provided copies of these 2001 & 2006 Teshmont reports in both paper and electronic format?

Requests:

Have Manitoba Hydro undertaken further studies on weather risks since 2006? And will Manitoba Hydro make these available in both paper and electronic format?

3. MWL Manitoba Hydro 2011 Reliability Report

Reference:

Chapter 2 refers to the following report:

“Manitoba Hydro 2011. Reliability alternatives for mitigating the risks of a Dorsey or Interlake Corridor outage, cost reviews and reliability implications. Joint report by System

Planning and Power Planning Departments. October 2011.” (EIS Chapter 2-21)

Request:

Manitoba Hydro to provide a copy of this report in both paper and electronic format.

4. MWL Alternatives to the Project

Reference:

“The following three alternative project options for enhancing the reliability of the Manitoba Hydro system were identified and evaluated:

1. The addition of 2000 MW of north-south HVdc transmission to continue to supply power from existing hydraulic generating sources in the north.
2. The addition of up to 2000 MW of gas turbines in southern Manitoba.
3. The addition of up to 1500 MW of new import tie lines to the United States (USA) to provide access to firm US generation, which is assumed to be comprised mainly of natural gas-fired generation, plus the addition of another 500 MW of natural gas-fired generation in southern Manitoba” (EIS Chapter 2-9)

Preamble:

Other options, including but not limited to: 1) emergent load shedding programs in the case of transmission and/or converter station failure; 2) expanded wind generation in Southern Manitoba; 3) biogas generation; 4) expanded solar generation; 5) small-scale hydro development in southern Manitoba; 5) demand side management that results in reduced overall demand for electricity in Manitoba; 6) curtailment of firm contract exports; 7) some combination of all of the above mentioned options is not been considered.

Request:

Manitoba Hydro to explain why the above mentioned options (emergent load shedding, reducing overall loads through demand side management, wind, solar, biogas, small-scale hydro) appear not to be considered? Are reports available on these options? If so, will Manitoba Hydro provide these reports in both paper and electronic format?

5. MWL Applicable Standards – EA, Construction, Use, Management, etc.

Reference:

According to the EIS Bipole III “...development will also adhere to applicable North American Reliability Council/Midwest Reliability Organization/Midwest Independent System Operator (NERC/MRO/MISO) criteria and Canadian Standard Association

(CSA) standards.” (EIS Chapter 3-13).”

Preamble:

MWL outline numerous other standards in our comments submitted to the Environmental Approval Branch on the Bipole III Scoping Document and EIS (International Standards Organization (ISO), International Association for Impact Assessment (IAIA), Hydropower Sustainability Assessment Protocol (HSAP).

Links:

<http://manitobawildlands.org/pdfs/MWL-BiPoleIII-ScopingComments-31Mar2010.pdf>

http://manitobawildlands.org/pdfs/MWL-BipoleIII_Resources_March2010.pdf

http://www.manitobawildlands.org/pdfs/BP3-EIS-LetterBraunMackintosh-16March12_FINAL.pdf

http://manitobawildlands.org/pdfs/MWL_BP3_EIS_Comments_2012Attachments.pdf

Request:

- a) Which additional standards will Manitoba Hydro adhere to?
- b) Will Manitoba Hydro adhere to the International Hydropower Assessment (IHA) Sustainability Protocol, which it supports?
- c) Manitoba Hydro to provide NERC/MRO/MISO and CSA standards referenced above.

6. MWL Exact Tower Locations

Reference:

According to the EIS:

“Detailed engineering... will be undertaken after receipt of project environmental approvals, and following right-of-way acquisition and detailed field survey. Precise tower locations and required conductor-to-ground clearances will be established at that time.” (EIS Chapter 3-29).

“Final structure locations will be determined on the basis of field surveys, including input from affected landowners/stakeholders, and will reflect detailed engineering and economic analysis ... tower location (tower “spotting”) has been identified as a potential mitigative measure to reduce adverse environmental and aesthetic impacts. ...” (EIS Chapter 3-29).

Preamble:

It is difficult to assess and quantify the impact that nearly 1400km (which with two or more towers per kilometer would result in roughly 3000 individual towers) will have on ecosystems, particularly wetlands and bogs, without knowing the precise location of the towers. Manitoba Hydro has started to drill holes to choose location for towers.

There also needs to be clarity regarding the process of who will qualify as a “landowner/stakeholder.”

- a) Manitoba Hydro to provide current tower siting locations, surveys, and maps before the start of CEC hearings?
- b) Make “detailed engineering and economic analysis” available.
- c) In regards to input from stakeholders, what steps have been taken? Please provide update(s).
- d) Manitoba Hydro to provide information and maps about current test drill holes for towers.

7. MWL Additional Right of Ways Required

Reference:

According to the EIS:

“Some sections of the line, particularly in northern Manitoba, may require supplementary right-of-way area for marshalling or supply of construction materials (e.g., aggregate for tower foundations), or for construction and maintenance access. Such requirements ... cannot be identified until post-approval field surveys, detailed design, and construction contract arrangements are finalized.” (EIS Chapter 3-32)

“The exact number and location of marshalling yards will be determined during the course of developing detailed construction specifications and contract arrangements.” (EIS Chapter 3-43)

Preamble:

The location of these additional right-of-ways, including potential right of ways, is needed to assess the impact from additional right-of-ways. If the field studies are done pre-approval the additional right-of-ways can be identified for the environmental review process.

Request

Manitoba Hydro to provide current field surveys and design for rights of ways pre-hearing.

8. MWL Manitoba Hydro Standard Environmental Protection Measures

Reference:

The EIS states that right-of-way clearing will be "...subject to standard environmental protection measures ...established in association with Manitoba Hydro transmission line construction practices..." (EIS Chapter 3-40)

Request:

Can Manitoba Hydro provide an outline of these "standard environmental protection measures?" Is there a document, which outlines these "standard environmental protection measures?" If so, can Manitoba Hydro provide a copy in both paper and digital formats?

9. MWL Clearing in Environmentally Sensitive Areas

Reference:

The EIS states: "Clearing will be modified in environmentally sensitive areas (e.g., river and stream crossings)" with a 58m right-of-way rather the standard 66m and "hand clearing with chain saws in environmentally sensitive sites..." (EIS Chapter 3-42)

Request:

- a) Criteria used to identify an area as "environmentally sensitive" to be provided.
- b) Manitoba Hydro to indicate whether existing Manitoba Conservation the forest clearing standards being used.

10. MWL Reuse of Cleared Timber

Reference:

The EIS states: "Disposal of cleared vegetation typically involves a variety of options including piling and burning, mulching, collection and secondary use by local

communities (e.g. firewood), or salvage and marketing of merchantable timber resources if feasible.” (EIS Chapter 3-42)

Preamble:

In the sparsely populated northern portion of Manitoba it is unclear if there would be enough demand to make this community reuse option feasible.

Request:

Has Manitoba Hydro performed any studies on the feasibility of reuse by local communities of cleared vegetation? If so, can Manitoba hydro provide copies of these studies in both paper and electronic format?

11. MWL Manitoba Hydro Guideline Documents

Reference:

In the EIS Chapter 3-45 footnote 16 refers to Manitoba Hydro’s “Environmental Protection; Guidelines Construction, Operation and Decommissioning (Manitoba Hydro, 2007)” and “Hazardous Material Management Handbook (Manitoba Hydro, 2003).

Request:

- a) Manitoba Hydro to provide copies of the two aforementioned reports in both paper and electronic format.
- b) Does Manitoba Hydro post all such guidelines on its website?

12. MWL Potential Borrow Locations

Reference:

“Potential borrow locations have not been specifically identified at this time. ... Any use of explosives during transmission line construction (e.g., in borrow pit operations, foundation installation, conductor splicing, etc.) will be made in accordance with all applicable legislation and regulations, including acquisition of permits and compliance with all conditions set by Manitoba Conservation.” (EIS Chapter 3-46)

Preamble:

It is hard to assess the impacts of borrowing operations without knowing the exact locations.

Request:

Can Manitoba Hydro identify the potential borrow locations before the commencement of hearings?

13. MWL - Workforce

Reference:

“For the operations and maintenance activity associated with the HVdc line and the 230 kV northern collector lines, the average annual workforce requirement (average over the life expectancy of the project) is estimated to be 11.5 persons. ... two to three would be internal Manitoba Hydro staff and the remainder would be contractor staff. The breakdown of the total average would be roughly two patrollers, two linemen, 0.5 helicopter pilots, and seven heavy equipment operators.” (EIS 3-52).

Also quotes in Chapter 5 and Aboriginal Traditional Knowledge report on First Nation jobs

Preamble:

There are many concerns in regards to job creation for northern and/or Aboriginal and First Nations people.

Request:

Of these 11 to 12 positions for operation and maintenance of Bipole III, does Manitoba Hydro have targets as to make up of the workforce: a) local labour, and; b) of aboriginal descent (First Nations and/or Metis), c) existing Manitoba Hydro staff versus new hires? What procedures will be put in place to ensure individuals from affected communities will be hired ?

14. MWL “Weed” Control / Herbicides

Reference:

According to the EIS Manitoba Hydro will use “...integrated vegetation management and weed control approach ... Herbicide treatments are formulated to target only broad-leafed plants (trees and weeds) leaving grasses unaffected. Foliar applications of herbicides are made in the summer months only... Permits for pesticide use are obtained on an annual basis. The process involves public notification as part of the formal permit application to Manitoba Conservation Pesticide Approvals Branch. All herbicide applications are

completed and supervised by licensed applicators and in accordance with conditions specified in the Pesticide Use Permit. Herbicide application rates are established by Manitoba Hydro's Chief Forester in accordance with product label instructions. ... Weed control on the rights-of-way is required for regulatory (i.e., The Noxious Weed Act), operational and safety reasons. ..." (EIS 3-54).

Preamble:

The use of herbicides is something that has consistently been raised as an issue during public open-houses.

Requests:

- a) Provide a list of the types and volumes of herbicides that Manitoba Hydro intends to use on an annual basis to maintain the Bipole III corridor.
- b) Provide a list of the types and volumes of herbicides used per annum over the past decade to Maintain the Bipoles I & II corridor.
- c) Provide information as to Manitoba Hydro research and any demonstrations of use of: biocide agents and other alternatives to keep transmission corridors clear.

15. MWL Northern Terminus Location

Reference:

The Keewatinoow Converter Station is to be "...sited in proximity to the proposed site of the potential Conawapa Generating Station" (EIS 3-56).

Preamble:

The location of the proposed northern terminus shows how Bipole III is not solely a reliability project, and is one component of a much larger hydro development project..

Requests:

- a) Did Manitoba Hydro consider a northern terminus near the proposed Keeyask Generation Station? If not, why not? If so, provide an overview of the deliberations and the rationale for the final site location for the northern terminus converter station near the proposed Conawapa Dam.
- b) Did Manitoba Hydro consider any other northern terminus options aside from the 10 candidate sites shown on Map 3-6?

16. MWL Discussions Regarding the Northern Converter Station

“The chosen station site was reviewed and discussed with representatives of Fox Lake Cree Nation in a number of meetings. Discussions continue with a view to identifying and addressing the effects on members of Fox Lake Cree Nation of the Bipole III Project” (EIS 3-57)

Requests:

a) Why did Manitoba Hydro only consider Fox Lake Cree Nation? Were other First Nations part of discussions regarding the location of the northern terminus?

17. MWL Wastewater Treatment

Reference: The Keewatinoow Converter Station will require a raw water supply, a water treatment/disinfection system, and potable water distribution throughout the site. Additionally, wastewater collection, treatment and disposal will be required. ... Water storage ... underground reservoirs or above-ground tanks. ... maximum consumption of treated water ... less than 10,000 litres per day. ... water treatment plant will consist mainly of process filter backwash and settling chamber sludge, and will be discharged to the sewage collection system for further treatment. Subsequent discharge to the Nelson River will be made in accordance with Manitoba Conservation guidelines. ... to meet the allowable concentrations under the Wastewater Systems Effluent Regulation, but currently this is not formally required as the volume of wastewater generated will be less than 10,000 L/day.” (EIS 3-64)

Requests:

a) Even though the volume will be less than 10,000 litres per day, can Manitoba Hydro confirm they will adhere to the Wastewater Systems Effluent Regulation? Would Manitoba Hydro agree to the Wastewater Systems Effluent Regulation being written into the license for volumes under 10,000 litres per day?

b) Does Manitoba Hydro intend to also follow the requirements of the new federal regulations for waste water treatment ?

18. MWL Switchgear and Circuit Breakers

Reference:

“High voltage circuit breakers ... contain a hermetically sealed mixture of sulphur hexafluoride (SF6) and carbon tetrafluoride (CF4) or nitrogen (N2) gases as the

insulating medium inside the breaker. Approximately 24 three-phase 230 kV circuit breakers will be required for the Keewatinooow ac switchyard. Each breaker will contain approximately 75 kg of insulating gas, comprised of approximately 50% SF6 and 50% CF4 or N2.” (EIS 3-69)

“Switchgear is needed to control the flow of dc power within the dc switchyard. ... similiar in operation and appearance to ac circuit breakers ... use a hermetically sealed mixture of sulphur hexafluoride (SF6) and carbon tetraflouride (CF4) or nitrogen (N2) gases as the insulating medium inside the switch. Approximately 13 high speed switches will be required for the dc switchyard. Combined, these switches will contain approximately 400 kg of SF6 and 120 kg of CF4 or N2 gas.” (EIS 3-84)

Request:

What does Manitoba Hydro calculate as the probability of leakages? Are their any examples in terminus settings for dc transmission where similar devices have failed, resulting in leakage ?

19. MWL Insulating Oil

References:

Numerous of the devices will use insulating oil (eg. EIS 3-72 to78).

Reference: Primary containment ... for equipment containing greater than 5,000 litres of oil. ... containment will utilize a concrete, clay or synthetic membrane barrier, extending a minimum of 1.5 m beyond the edge of any the equipment. The majority of the primary containment facilities will be connected to the oil-water separator building using fast drain piping. Any exceptions will involve local containment ... Water collected in the oil containment system ... will undergo oil/water separation ... ” (EIS – 3-144)

“The station service transformer will contain approximately 35,000 litres of insulating oil.” (EIS 3-148).

“The transformers may be oil-filled, each containing approximately 2,200 litres of insulating oil. Indoor power centers ..., typically utilize dry type transformers which do not contain insulating oil. It is anticipated that up to four outdoor and eight indoor power centers will be required for Riel Converter Station.” (EIS 3-150)

“Each converter transformer (see Figure 3.5-4) will contain approximately 115,000 litres of insulating oil. Due to the volume of insulating oil in each transformer, the design will incorporate primary oil containment (see Section 3.6.2.1).” (EIS – 3-150).

“Each filter bank will contain approximately 2,800 litres of insulating fluid within the filter capacitors.” (EIS 3-154)

“Each synchronous condenser will ... contain approximately 14,000 U.S. gallons of waterglycol mixture (approximately 53,000 litres). A typical hydrogen seal system will contain 600 litres of oil.” (EIS 3-157 to 158)

“...The excitation transformer will contain approximately 500 litres of insulating oil. ... Approximately 1,300 litres of battery acid will be contained within the battery banks.” (EIS 3-158)

“The unit transformers are filled with insulating oil for electrical insulation and heat transfer. Each will contain approximately 68,000 litres of insulating oil.” (EIS 3-159)

Requests:

- a) Manitoba Hydro to provide a chart and explanation of these stated amounts of oil in the identified kinds of transformers, with accessible information as to the different, varying amounts of oil described.
- b) What does Manitoba Hydro calculate as the probability of leakages? Are there any examples where similar devices and oil collection systems have failed?

20. MWL Conversion Technology

Reference: “Bipole III will consist of two poles, one energized at +500 kV dc, and the other at -500 kV dc. ... Two conversion technologies are presently being considered for Bipole III: conventional line-commutated conversion (LCC) technology, and newer voltage-source converter (VSC) technology. Selection of the conversion technology is expected in late 2011.” (EIS 3-80)

Request:

- a) Has MH decided what type of conversion technology they intend to use (line commutated or voltage-source)? Manitoba Hydro to provide update in advance of CEC hearings.

21. MWL Water Supply for Concrete Production

Reference: “Keewatinoo Converter Station and supporting sites ... require ... 15,000 to 45,000 m³ of concrete ... Studies are currently underway to confirm the feasibility of drawing on ground water for the supply of water for concrete production.”

Requests:

- a) How much water will concrete construction require?
- b) Have these feasibility studies been completed? If so provide results. If not will studies be available before hearings ?
- c) Can local groundwater meet the demand? What impacts, and total water use, has Manitoba Hydro identified regarding the local aquifer over the life of the converter station?

22. MWL Greenhouse Gas Emissions Attributable to Concrete

References:

According to a 2001 study in *The Annual Review of Energy and the Environment* every tonne of concrete produced in North America creates 242 kg of Carbon emissions, and this does not include "...the CO₂ emissions attributable to mobile equipment used for mining of raw material, used for transport of raw material and cement, and used on the plant site." <http://arjournals.annualreviews.org/doi/abs/10.1146/annurev.energy.26.1.303> (subscription required)

In his book *Heat*, George Monbiot argues, "It is probably fair to say that a tonne of cement produces about a tonne of carbon dioxide."

Requests:

Does the Pembina Institute GHG Report quantify emission attributable to cement use for Bi Pole III ? What studies does it rely on? Is it comparable to the study referred to above?

23. MWL Explosives on Site

Reference:

"In the event that the use of explosives is necessary (e.g., for excavation of rock or large boulders or for splicing and terminating electrical conductors), a magazine for storage of explosives will be located away from the work and camp areas, in accordance with provincial blasting regulations." (EIS 3-104).

Request:

Can Manitoba Hydro now indicate whether explosives will or will not be required?

24. MWL Rail Spur Upgrade

Reference:

“The existing rail spur at Limestone/Henday connects to the (Winnipeg-Churchill) ... will require some upgrading and maintenance, the extent of which is under ongoing review.”

Requests:

- a) Can Manitoba Hydro now indicate exactly what upgrades are require, including cost?”
- b) Who will pay for these upgrades, and is there a technical report or plan for the spur line upgrades ?

25. MWL BNA Agreement – Hiring

Reference:

“**The allocation of employment opportunities will generally be based on the hiring preferences defined in the Burntwood Nelson Agreement (BNA)** Manitoba Hydro may also directly negotiate certain contracts or work packages with in-vicinity First Nations, who would then have ability to hire their members directly for such work. The Keewatinoow project work will be tightly scheduled.”

Request:

Why the use of the adjective “generally?” BNA is a legal agreement. Either it is adhered to, or MH is in breach of contract. How can you generally adhere to a contract? Explain whether any hiring for Bi Pole III has occurred to date based on the BNA?

26. MWL Water for Work Camp

Reference:

“Water will likely continue to be obtained from an existing on-site well, treated with approved water treatment equipment, and stored in approved potable water containers. Alternatively, potable water may be hauled in from Gillam and stored in approved potable water containers located at the camp.” (EIS 3-119)

Request:

What well? Is the well large enough to sustain 500 people? Provide comparative information regarding the water supply for the existing work camp at the Keeyask work camp.

27. MWL Solid Water – Work Camp

Reference:

“Solid waste will be hauled to a licensed waste disposal site with adequate capacity, subject to approval by the facility owner and Manitoba Conservation. Food refuse that is not disposed of through the kitchen garburators and sewage system, as well as other wastes destined for the waste disposal site, will be stored temporarily in approved containers maintained in a secure location to prevent intrusion by wildlife. Requirements for storage and haulage may be minimized through the use of garbage compactors. A recycling and waste management plan will be developed in relation to camp operations. The plan will: provide for appropriate separation of waste streams; optimize recycling; and ensure proper disposal of all solid wastes.”

Request:

Estimate total garbage production over work camp lifespan?

28. MWL Noise Levels

Reference:

“Audible noise levels arising from station equipment operation will be subject to final design and equipment selection, but will comply with applicable provincial regulations and guidelines.” (EIS 3-130)

Request:

What provincial guidelines are referenced above, and does Manitoba Hydro also include CCME and federal noise requirements?

29. MWL Valve Groups - Leaks

Reference:

“The valve groups within the valve halls generate heat during operation. ... cooling system which circulates a de-ionized water-glycol solution through a system of manifolds

and pipes. Although the **probability of leaks in the system is low**, the system is closely monitored to ensure proper operation.” (EIS 3-131)

Requests:

- a) What is the definition of “low probability” in relation to the quote above?
- b) Manitoba Hydro to provide information on any leak occurrences for other converter and sub station elements in Hydro system.

30. MWL Decommissioning

Reference:

“The life span of converter station facilities is normally considered to be in the order of 50 years. However, converter station facilities are not sited and designed with a view to decommissioning. As individual station components fail, replacement will normally be made with equivalent new equipment or facilities. ... facilities ... are considered to be effectively permanent. In the extremely unlikely event that the Keewatinoow Converter Station was to be decommissioned, ... subject to ... applicable regulatory requirements ... objective of any decommissioning plans would be to restore the station site to a condition consistent with the future intended use of that site.” (EIS 3-177)

“At this time, there is no timetable for ultimate decommissioning of the Project. If project components were to be decommissioned, the earliest timeframe would be approximately 50 years from now. For this amount of time into the future it is not feasible to provide meaningful assessment of the likely decommissioning plans or their effects.” (EIS 4-4)

Requests:

- a) Does Manitoba Hydro have decommissioning standards for converter stations ?
- b) Has Manitoba Hydro ever decommissioned a converter station ?
- c) How do decommissioning plans for generations stations fit with decommissioning standards for converter stations ?

31. MWL Valve Halls

Reference:

“The valve groups within the valve halls generate heat during operation. This heat must be dissipated quickly and efficiently in order to protect the critical electronic components. The removal of heat is performed by a cooling system which circulates a de-ionized water-glycol solution through a system of manifolds and pipes. Although the probability of leaks in the system is low, the system is closely monitored to ensure proper operation.” (EIS 3-176; see also EIS 3-151)

Requests:

- a) How will valve halls be monitored? How will the rest of the system be monitored?
- b) What is meant (i.e what is the statistical significance) of “the probability of leaks in the system is low.”

32. MWL Material for Station Construction

Reference:

“Material required for station construction (e.g., concrete and granular fill) will generally be obtained from local suppliers (providing specific material specifications can be met) and transported to the site. Construction clean-up will occur throughout all phases of construction.” (EIS 3-164)

Request:

Has Manitoba Hydro investigated whether these material requirements can be obtained from local supplier? If so provide the results of those investigations.

33. MWL Hydrogen and Carbon Dioxide – Transport

References:

“Hydrogen

All transportation, handling and storage of hydrogen for use in the synchronous condensers will comply with relevant regulations and guidelines.”

“Carbon Dioxide

All transportation, handling and storage of carbon dioxide for use in the synchronous condensers will comply with relevant regulations and guidelines.” (EIS 3-176)

Request:

Which relevant regulations and guidelines are being referred to above for both hydrogen and carbon dioxide?

34. MWL Schedule & Traffic Congestion

Reference:

“... proposed to be in-service by October 2017. To achieve this, construction will need to commence in the Fall of 2012 at the Keewatinoow site to provide construction power and enable related station work. ... Crown land reservations, easement agreements and any other project-related property arrangements, permits, etc. are targeted to be secured prior to construction commencement in the Fall of 2012, contingent upon license receipt. (EIS 3-178)

Request:

- a) Given this schedule is no longer feasible and work for Keeyask and Conawapa continue to advance how will Manitoba Hydro handle the combined traffic congestion from these multiple projects?
- b) Are crown land reservations, easement agreements and surveys publicly available ?

35. MWL Groundwater Regime

Reference:

“The approach taken to understand the current groundwater regime in the Local Study Area involved the collection, review, and synthesis of available geological and hydrological information. No field activities were conducted. ...” (EIS 4-14)

Preamble:

Given that artesian wells and saline aquifers are known to exist in the area, and there is a dearth of comprehensive pre-existing information on northern geology and species, it would seem that groundwater studies would help assess risks and also determine the amount of water available for use during construction and operation.

Request:

Why were no field activities in relation to groundwater undertaken? What data or studies did Manitoba Hydro rely on for its EIS content re groundwater regime?

36. MWL Fish Habitat

Reference:

“... an assessment of fish habitat was conducted for each water course occurring within the Project area. Fish habitat quality was assessed for each water course within the Local Study Area using aerial photographs, aerial video, Google Earth imagery, existing published and unpublished information, and field studies.” (EIS 4-15)

Requests:

a) Were field studies conducted for any water courses? And which water courses had existing field studies available ?

b) What did the field studies entail? Which water courses?

37. MWL Woodland Caribou Corporate Strategy

Reference:

“...Manitoba Hydro has developed a draft internal corporate strategy that directs research and monitoring activities to address issues on the potential effects of transmission development on boreal woodland caribou.” (EIS 4-17)

Request:

Manitoba Hydro to provide a copy of this “draft internal corporate strategy regarding potential effects of transmission development on boreal woodland caribou.

38. MWL Bird Surveys

Reference:

“A moderate sample effort was undertaken in habitats adjacent to the Local Study Area. ... A number of bird surveys were conducted in the Project Study Area, including owl surveys, raptor migration surveys, colonial waterbird surveys, water staging reconnaissance surveys, and breeding bird surveys.” (EIS 4-18)

Request:

Provide a list of the number, location, and types of different bird surveys undertaken, with species identified, and mitigation approaches.

39. MWL Economic Impact Report

Reference:

“...an economic impact report was prepared for the Project which involved assessing the economic impacts of the construction and operations of the Project in terms of direct expenditures that would be made, and secondary impacts that would be expected from the direct expenditures. The economic modelling framework used for estimating these economic impacts is the Manitoba Bureau of Statistics’ Input-Output model.” (EIS 4-24)

Request:

Provide a copy of this economic impact report.

40. MWL Socio Economic Baseline Data

Reference:

“Socio-economic baseline data including statistical data on population and demographics, dwellings, education, labour force, income, and industry and occupations, were collected...” (EIS 4-26)

In addition ... the information was also used to generate population projections for communities near the Final Preferred Route. (EIS 4-27)

Request:

Where in the EIS or Technical Reports can this baseline and projected data be accessed?

41. MWL Equity Amongst Stakeholders

Reference:

“The overall purpose of the EACP is to provide the public, and particularly those who may be potentially affected by the Project, with meaningful opportunities to receive information on, and provide their input into, the SSEA for the project..”(EIS 5-1)

Request:

Were these opportunities provided equally to all stakeholders? What were the communications methods used and was the communication process evaluated and adjusted to address shortcomings?

42. MWL Input Opportunities

Reference:

“Opportunities at various stages: This includes opportunities to provide inputs: (a) when issues are being initially identified, (b) when alternative routes/sites are being considered, (c) when initial effects assessments are reviewed and ways to mitigate or enhance identified effects are considered, (d) when the EIS has been filed with regulators for review and comment, and (e) when supplemental EIS information may be filed with regulatory authorities.” (EIS 5-1)

Preamble:

If as indicated in the July 19, 2012 prehearing Manitoba Hydro intends to file some supplemental information (eg. supplemental caribou technical report) then based on the above description of the Environmental Assessment Consultation Process (EACP) it would seem that additional opportunities to provide input are required.

Request:

What further opportunities will be provided to the public, stakeholders, and affected communities to provide input with respect to supplemental EIS information?

43. MWL Early Stage Activities – Elected Officials

Reference:

“Early stage activities focused on elected officials in First Nations, Northern Affairs Communities (NACs) and municipalities in the Project Study Area. To recognize and address the unique rights and interests of Aboriginal communities, potentially affected publics in the project study area were divided into Aboriginal and non-Aboriginal groupings.” (EIS 5-2)

Request:

How were activities adjusted to address the Aboriginal and non-Aboriginal groupings? What about Metis communities?

44. MWL Selection Preferred Corridor

Reference:

“Round 3 activities... focused on presenting a comparison of the alternative routes for the Bipole III line, and receiving input on these alternatives to assist in identifying a preliminary preferred route for the line.” (EIS 5-4)

Request:

Provide description of the main factors in choosing the preferred corridor route.

45. MWL Local Study Area and First Nations Traditional Territory

Reference:

“With the identification of the preliminary preferred route for the Bipole III line, the focus shifted to incorporated cities, towns, and villages, First Nations leadership, and NAC councils within 25 km (15.5 mile) of the preliminary preferred route, and to those RMs that the route traversed.” (EIS 5-8)

Requests:

- a) In regards to the 50 km zone along the preferred corridor, for first nations did hydro simply consider 25 km from reserve lands, or did they base it within 25 km of the First Nation’s traditional territory?
- b) Given the reference to a focus on RMs that the Bi Pole III route traversed, was a similar focus in place for First Nations whose traditional lands that the Bi Pole III route traversed ?

46. MWL “Consultations”

References:

“Each of the four rounds of consultation included meetings in both the Aboriginal and non-Aboriginal communities. ... Invitations to meet with stakeholders became more narrowly focused as the SSEA [Site Selection and Environmental Assessment] process progressed through the four rounds of the EACP. However, all interested parties were presented with the project information even if they were not potentially affected by the project...” (EIS 5-8)

“...Throughout the EACP:

- 244 meetings were held;
- 137 Regional and Community Open Houses were held, with 510 comment sheets completed;
- 42 Landowner Information Centres/Meetings were held with 319 Landowner Information Centre forms (Round 4 and Ground Electrode) completed;
- Over 200 phone calls were answered on the project phone line; and
- Over 140 emails/letters were received.” (EIS 5-36)

Requests:

- a) “What was the response rate to invitations sent out by Manitoba Hydro, or it’s consultants? In other words: how many invitations, if any, were sent out for each meeting and how many people showed up to each meeting? Aside from invitations, what other methods of public notices were used?
- b) If the response rate were low, were communication methods evaluated and altered before moving onto the next round?
- c) Manitoba Hydro to explain why references to consultations are present in the EACP bulletins, and EIS text when as proponent for this project Manitoba Hydro does not hold any responsibility for the obligation to consult with Aboriginal Peoples.

47. MWL Maps – 1:50,000 scale

Reference:

“...between the end of Round 3 (alternative routes) and the beginning of Round 4 (preliminary preferred route) it was thought that landowners and other stakeholders would benefit from a location map of the preliminary preferred route. Accordingly, localized topographic maps (1:50,000 scale) were sent as a part of the information packages.” (EIS 5-10)

Request:

Manitoba Hydro to provide these 1:50,000 topographic maps to all CEC participants, in both digital and paper format.

48. MWL Landowner Map Booklet

Reference:

“The Landowner Map Booklet consisted of 130 individual maps with orthographic imagery, topographic imagery, and recent flyover imagery within 4.0 km (2.5 miles) on either side of the route.” (EIS 5-12)

Request:

Manitoba Hydro to provide copies of the “Landowner Map Booklet” in electronic and paper format.

49. MWL Key Person Interviews

Reference:

“Key Person Interviews (KPIs) were conducted with stakeholder representatives in conjunction with Round 4 of the EACP. A total of 53 KPIs were conducted with 83 participants from RMs, towns, and villages, as well as trappers and industry representatives.” (EIS 5-13)

Request:

Manitoba Hydro to provide the demographic breakdown of these KPIs– was there equal representation from various stakeholder groups?

50. MWL Aboriginal Peoples – Meaningful Engagement

Reference:

“From the outset of the Bipole III planning process, Manitoba Hydro identified meaningful engagement with Aboriginal communities and incorporation of Aboriginal perspectives, including Aboriginal Traditional Knowledge (ATK), as important components of the Bipole III project planning and SSEA [Site Selection and Environmental Assessment] process.

...

Given the unique rights, interests and perspectives of Aboriginal peoples as well as the logistical challenges associated with travel and engagement activities in more isolated communities, the potentially affected publics in the Bipole III project study area were split between Aboriginal and non-Aboriginal stakeholders. The EACPs for Aboriginal and non-Aboriginal stakeholders were carried out separately, but activities were coordinated over the same timeframe and stakeholder engagement activities were tracked

in the same way. The Aboriginal-specific process included First Nations and NACs.”
(EIS 5-14)

Request:

Was travel support provided to open houses for First Nations who may have restricted access due to lack of transportation? Or was an open house held in each affected community?

51. MWL Fox Lake Cree Nation Concerns

Reference:

“...Extensive information was provided about the three herds of caribou hunted by FLCN [Fox Lake Cree Nation] members: woodland, barren ground, and Pen Island. It was noted that, in the past, there were a lot more caribou observed in the area. More recently, following the construction of the Conawapa road, FLCN [Fox Lake Cree Nation] members have observed that local caribou movement has shifted. Concerns regarding the potential impact of the Keewatinoow Converter Station on caribou were expressed as the preferred site is to be located in an area caribou are known to occupy.

... Fox Lake has noted changes in the quality of certain fish species and a decline in moose populations since the start of hydroelectric development in the area. With regards to potential impacts on goose populations, the report identifies concerns that the Keewatinoow Converter Station will displace geese from the area. The importance of these resources as a healthy food source is noted.” (EIS 5-20 to 5-21)

Request:

What mitigation steps has Manitoba Hydro identified to address these Fox Lake First Nation concerns?

53. MWL Long Plains First Nation Concerns

Reference:

“... The objective of Long Plain First Nation’s (LPFN) study was to document their community’s traditional and current land use within the Project Study Area and their concerns regarding the Project... A total of 125 interviews were conducted, all following the same interview guide.” (EIS 5-22)

Request:

What specific mitigation steps has Manitoba Hydro identified to address these Long Plains First Nation concerns?

54. MWL OCN Concerns

Reference:

In Opaskwayak Cree Nation[OCN]'s report it is noted that: "... The Elk Zone has recently been disturbed by the Wuskwatim Transmission Line, a disturbance which resource users and Elders linked to a decline in marten and fisher population in the area. Within this context, the report identifies a concern that the Project might further impact this area as well as marten and fisher populations."

Requests:

- a) What corroboration has Manitoba Hydro undertaken, and what mitigation measures are identified regarding these commulative environmental effects ?
- b) Manitoba Hydro to provide baseline data in the region collected regarding these species as part of the Wuskwatim environmental effects assessment ?
- c) Has Manitoba conducted further wildlife studies in the area?

55. MWL OCN Trappers' Concerns

Reference:

"The extent of industrial land use, including forestry and mining activities as well as Manitoba Hydro development, was noted as a source of apprehension for the OCN trappers. Trappers have observed changes resulting from these activities, such as a decrease in animal populations, an increase in outsider access to areas used by OCN, and the contamination of food sources."

Request:

Manitoba Hydro to provide information about cumulative impacts on species trapped in the OCN traditional use areas.

56. MWL OCN Recommendations

Reference:

The OCN report concludes with a number of recommendations on socio-economic considerations:

- “• Ensure that OCN’s AEK is considered in Manitoba Hydro’s Bipole III Environmental Impact Statement and associated mitigation measures;
- Conduct a longitudinal biophysical study to evaluate potential environmental impacts;
- Compensate for impacts on the Elk Zone and for any adverse effects that cannot be mitigated;
- Establish mitigation measures to address the disturbance of subsistence use practices in the named areas;
- Develop environmental protection plans in partnership with OCN;
- Conduct monitoring and maintenance in partnership with OCN;
- Allocate timber generated as a result of clearing the right-of-way to OCN;
- Wherever possible, discourage the burning of forest related debris;
- Consider the negotiation of Impact Benefit Agreements and Purchase of Services Agreement between the successful contractor and OCN;
- Ensure that 10%, of the workforce within OCN lands and is comprised of OCN members; and
- Provide training and certification relevant to transmission line site development, installation and monitoring.” (EIS 5-27)

Request:

Has Manitoba Hydro followed through on these recommendations?

57. MWL Swan Lake First Nation

Reference:

“[Swan Lake First Nation] SLFN had at the time the report was submitted to Manitoba Hydro [July 2011] SLFN developed the following recommendations:

- That the Round Plain Site be left undisturbed;
- That SLFN undertake research regarding the Indian Garden Site and initiate further discussions regarding this land with the federal government;
- Should a licence be granted for the project, that Manitoba Hydro allow for a SLFN monitor to be on-site for construction activities occurring between NW 35-9-9W1 to SW 26-9-9W1 to NE 8-9-8W1 east to SE 15-9-8W1;
- That a formal protocol be established and agreed to regarding the enforcement of the regulations under the Heritage Resources Act prior to construction; and

- That Manitoba Hydro continues to work with SLFN to address the community’s concerns with the Project.” (EIS 5-28)

Request:

Has Manitoba Hydro followed through on these recommendations?

58. MWL Swan Lake First Nation

Reference:

“Subsequent to Swan Lake’s Traditional Knowledge report and upon request from the community, Manitoba Hydro provided funding for Swan Lake to complete additional botanical and archaeological work within the study area, in areas of concern to the community. ... The report proposed the following recommendations:

- Consider adjustments to the Bipole III route;
- Once the final route is chosen, conduct detailed site surveys prior to disturbance to allow for additional mitigation measures;
- Adjust the placement of towers to minimize any negative impacts;
- Conduct construction activities in the wintertime; and
- Avoid using herbicides in areas where there are rare species and/or where community members harvest medicinal plants.” (EIS 5-29)

Request:

Has Manitoba Hydro acted on these recommendations?

59. MWL TCN Concerns

Reference:

“The report concluded by identifying the following conditions associated with TCN’s [Tataskweyak Cree Nation] continued support of the Project:

- Conduct negotiations with the goal of reaching an agreement regarding compensation for potential project impacts on the collective rights and interests of TCN;
- Conduct negotiations and reach an agreement regarding business, training and employment opportunities associated with the construction, operation and maintenance of the project;
- Participate in and contribute to Manitoba Hydro’s Environmental Impact Statement; and

- Conduct a consultation process regarding the Keewatinoow converter station and electrode site.” (EIS 5-33 to 5-34)

Request:

Has Manitoba Hydro followed through on these recommendations?

60. MWL Trapper Notification/ Compensation

Reference:

“Manitoba Hydro has implemented a “Trappers Notification/Compensation Policy” to guide its interactions with trappers and provide a framework for compensation for project-related impacts on trapping activities....” (EIS 5-35)

Request:

Provide a copy of the “Trappers Notification/Compensation Policy”

61. MWL Trappers Agreements

Reference:

“In the case of Bipole III, the implementation of this [Trappers Notification/Compensation] Policy will include discussions with some 120 individual registered trappers, four Open Trapping Zones, and 12 Manitoba Local Fur Councils. Manitoba Hydro is aiming to have agreements in place with trappers in the vicinity of the project, in order to compensate them for the potential commercial losses associated with project construction, prior to the start of construction.” (EIS 5-35 to 5-36)

Request:

Manitoba Hydro to provide an update on the status of these negotiations. How many of the registered trappers and fur councils has Manitoba Hydro had discussions with? How many compensation agreements with trappers in the vicinity of the project have been concluded?

62. MWL Community Benefits

Reference:

As noted in the EIS (5-42 to 5-44) comments regarding the benefits of the Bipole III project to local communities were received during the Environmental Assessment

Consultation Process. Suggestions include reduced power rates for communities, and/or community co-ownership and sustaining revenue rather than one-time compensatory payments. These suggestions were rejected by Manitoba Hydro.

Requests:

- a) Manitoba Hydro to comment further on why these options were rejected.
- b) Did Manitoba Hydro advise the Manitoba government about the benefits options being identified by local communities?

63. MWL Purchasing Policy

Reference: see EIS 5-44

Request:

Provide a copy of Manitoba Hydro's "Northern Purchasing Policy"

64. MWL Property Values

Reference:

"Manitoba Hydro monitors property values in the vicinity of its facilities, and based on research conducted to date, has determined that property values will not be significantly affected." (EIS 5-49)

Request:

Provide the research and data which confirm that hydro facilities do not affect property values.

65. MWL Right-of-Way (ROW) Surveys

Reference:

"As the location of the AC collector lines and construction power line ROWs were not finalized until the winter of 2011, field assessments for these components were not completed and pre-construction surveys for species of conservation concern will be conducted for these ROWs." (EIS 6-71)

Requests:

- a) Have the field assessments for the components referenced above been undertaken since winter 2011? Are results available to be added to the EIS? If not, when will the field assessments be done and available?
- b) Have pre construction surveys of species of conservation concern been undertaken ? If not when will these surveys be done?
- c) Manitoba Hydro to provide its definition for species of conservation concern, and criteria for identification of these species.
- d) Does Manitoba Hydro include Manitoba Conservation ranking system for species, plus COSEWIC and SARA listing systems?

66. MWL Species – Southern Ground Electrode

Reference:

“As a result of this [southern ground electrode] site being identified and selected in the winter of 2010, a field assessment at this site was not completed and therefore a pre-construction survey for species of conservation concern will be conducted for the southern ground electrode site.” (EIS 6-73)

Requests:

- a) Have the field assessments (species of conservation concern) for the components referenced above been done? Manitoba to provide reports.
- b) Will these species of conservation concern field assessments for the southern ground electrode area incorporate traditional knowledge ?
- c) What is the size of the southern ground electrode site area that will be assessed regarding species?

67. MWL Wolverine

Reference:

“Wolverine are currently listed as a species of Special Concern in Manitoba and are listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), with population considered stable to increasing (COSEWIC 2003).” (EIS 6-78)

Requests:

- a) Has Manitoba Hydro conducted any more recent studies (post-2003), or is it using more recent studies (post-2003), which demonstrate wolverine population in Manitoba is in fact “stable to increasing?”
- b) Did Manitoba Hydro review the scientific literature regarding the steady loss of wolverine populations in North America and Canada before concluding that wolverines would not be impacted by Bi Pole III?

68. MWL Arctic Caribou

Reference:

“This population [the Beverly-Qamanirjuaq caribou herd] is considered to be in major decline [and]... there is potential for this population to be present during the construction or operation of the Bipole III line and Project infrastructure in northern Manitoba.” (EIS 6-79)

Requests:

- a) How will Manitoba Hydro mitigate risk to these herds during construction and operation of Bi Pole III?
- b) Did Manitoba Hydro make a presentation and discuss risks to these herds with the five jurisdiction co management board for these herds?

69. MWL Lands Use Designations

Reference:

“In all cases, development plans provide that utilities should be permitted in any land use designation subject to requirements in a municipal zoning by-law and should be developed in a manner to minimize any incompatibility with neighbouring land uses. As a Crown Corporation, Manitoba Hydro is not formally subject to municipal land use and development controls, but generally adheres to them in developing new facilities.” (EIS 6-136)

Request:

Manitoba Hydro to provide listing of the crown land uses, designation, policies and regulations, which the corporation is subject to.

70. MWL Organic Producers

Reference:

“...As of 2009-10, there were 49 organic producers, processors and handlers registered with Organic Producers Association of Manitoba (OPAM) that are in the Project Study Area”

Preamble:

There are many certification bodies and/or standards (for eg. see <http://www.gov.mb.ca/agriculture/organic/org01s01.html>). Some producers also use organic methods, but may not be certified. This means that many more organic producers in Manitoba may not be registered with OPAM but may use another body/standard (eg. FoodLocal+)?

Requests:

- a) Did Manitoba Hydro account for organic producers who certify with another non OPAM organization?
- b) Did Manitoba Hydro consider non-certified organic producers in Manitoba?

71. MWL Riel Station Property Purchase

Reference:

“Manitoba Hydro contacted the two owners of three properties that would need to be purchased for [Riel Converter Station ground electrode] site development. Property purchases for the site seem to be feasible.” (EIS 7-19)

Request:

Have the property purchases been completed?

72. MWL Southern Ground Electrode

Reference:

“The preferred route [for the southern ground electrode] and any responses from local landowners adjacent to the preferred route will be provided to Manitoba Conservation in December 2011” (EIS 7-20)

Request:

Provide the responses from local landowners, or indicate where in the EIS these responses from local landowners are found/

73. MWL ATK Process

Reference:

“Incorporation of the findings of the ATK process into the selection of the preferred route was complicated as the process took place at different points in the Project planning process.” (EIS 7-25)

Request:

Please elaborate further. Was the ATK process over 5 years? Did it bridge stages of public ‘consultation’?

74. MWL Routes

Reference:

“All three routes originate at the proposed site of the Keewatinoow Converter Station, and then proceed southwest, south and then southeast to the Riel Converter Station site, east of the City of Winnipeg.” (EIS 7-26)

Request:

Were any other terminus points considered? Eg. why not start at the site of Keeyask given it is slated for development first? Eg. why not place the Riel Converter station in the central or western portion of the province to minimize additional length, while also being able to connect into the southern 230Kv grid?

75. MWL Route Selection – Committee of Specialists

Reference:

“Subsequent to Round 3 ...first step was the formation of a multidisciplinary committee to develop a process for Preliminary Preferred Route (PPR) selection. A committee of discipline specialists was formed in January 2010 to review public, stakeholder, and Aboriginal input ...” (EIS 7-30)

Request:

Who is on this Committee of discipline specialists? Is there a record of their recommendations ?

76. MWL Past and Existing Projects and Activities

Reference:

“Manitoba Hydro was a proponent for a number of past/existing projects included in Table 9.2-1. Where relevant, this allows for coordination of mitigation and monitoring measures to help ensure any cumulative effects resulting from these projects are identified and addressed. For example, mitigation, monitoring and follow up measures have been identified for the Wuskwatim generation/transmission and Riel Reliability Improvement Initiative projects as part of the planning and development of each of those projects.” (EIS 9-3)

Requests:

- a) Since MB Hydro has been involved with many past and future projects – does Manitoba maintain cumulative effects information with respect to its past and future projects ? Please provide.

- b) Manitoba Hydro to provide information about the cumulative combined effects from Bi Pole III and other Hydro projects.

77. MWL Existing Linear Features

Reference:

“[Table 9.2-1]...corridors may result in habitat disruption and fragmentation effects; contribute to direct mortality of VEC individuals and increased access to adjacent areas by recreational users; Existing corridors are considered where relevant as part of the existing environment (Chapter 6) and in the effects assessment in Chapter 8 and are not considered further in Chapter 9.” (EIS 9-5)

Request:

Existing linear features in the environment can have a large impact on migratory animals such as woodland caribou-. Explain why Manitoba Hydro why existing corridors part of the ‘existing environment’ when these corridors have potential cumulative effects?

78. MWL PR 280

Reference:

“[Table 9.2-1] Construction activities associated with PR 280 may be viewed as an induced action as a result of ongoing and proposed hydroelectric developments along the Nelson River. Provincial Road construction activities (i.e., crushing and stockpiling, rock cuts and spot grading) were to have commenced in late 2010 with a completion date of late 2011. Related improvements would be confined within the existing roadway profile; Effects expected to be beneficial rather than adverse.” (EIS 9-9)

References:

- a) Would there be a need for this road if Hydro development was not in the area?
- b) How are effects assessed: when a project may have positive socio-economic impact but negative biophysical impact?
- c) What is the licensing and permitting process for PR 280?

79. MWL Cumulative Effects Assessment (EIS Chapter 9)

Request:

On what basis has Manitoba Hydro defined adverse effects as being ‘negligible’ and ‘potentially non-negligible’? (Eg. Sensitive subcomponents of the environment such as groundwater can be affected by almost every project component yet are considered to have negligible cumulative effects.) Manitoba Hydro to provide its methodology for assessment of environmental effects, with applications to project components and subcomponents

80. MWL Woodland Caribou Effects / Fragmentation

Reference:

“The SSEA process provided an opportunity for avoiding the majority of potential effects through the selection of the Final Preferred Route away from a number of boreal woodland caribou core winter and summer ranges, and where possible the HVdc transmission and ac collector lines were routed in proximity to existing linear features to reduce expected effects of additional fragmentation.” (EIS 9-18)

Preamble:

Caribou ranges include calving area, not just winter and summer ranges.

Requests:

- a) Why does the EIS leave out these elements of the woodland caribou and potential effects on them? Manitoba Hydro to explain potential effects on winter, summer, and calving areas.
- b) Maps provided for the preferred route show considerable woodland caribou areas affected. Manitoba Hydro to provide analysis and mapping to show the potential effects on woodland caribou from each of the three Bi Pole III route options.
- c) Manitoba Hydro to provide information as to the specialists, authorities, and recent scientific sources used to determine the preferred route in relation to woodland caribou herd areas and ranges.
- d) Manitoba Hydro to provide its analysis of the Manitoba Government identification and assessment of level of risk for these woodland caribou herds before and after Bi Pole III.
- e) Did Manitoba Hydro use historic research and data to choose this preferred route with respect to potential effects on woodland caribou?
- f) Manitoba Hydro to provide its mitigation plan for woodland caribou and its plan to fulfill the requirements of the Manitoba Endangered Species Act listing of woodland caribou.

81. MWL Woodland Caribou Mitigation

Reference:

“With implementation of mitigation measures as described in Chapter 8, the Project is not anticipated to have significant residual effects on boreal woodland caribou.” (EIS 9-19)

Requests:

- a) Is Manitoba Hydro aware of any hydro project in Canada where adaptive management was applied and caribou herd sustainability was improved? What types of measures were implemented – what is the success rate?
- b) Manitoba Hydro to confirm that its use of reference to the species includes woodland caribou range areas, habitat, calving areas, primary food sources, etc?

82. MWL FIRES:

Reference:

Map 6-14 “Forest Fires History Within Project Study Area” shows forest fires starting in 1928.

Requests:

- a) Was Manitoba Hydro able to obtain any forest fire data that pre-dated that pre-dated 1928?
- b) Did Manitoba Hydro use Manitoba government historic data, or obtain satellite data for this map?

83. MWL Forestry Technical Report

Reference:

November 2011 “Forestry Technical Report” states “Ancillary data, including fire history, forest harvest, renewal and access development that have taken place since the effective inventory date have been acquired from Manitoba Conservation, Forestry Branch and the forest industry, and used to update the FRI (Forest Resource Inventory).

Requests:

- a) Provide the ancillary data (including fire history, forest harvest, etc.) referred to above. Manitoba Hydro could map existing tenure, previous and current mining, forestry operations etc in the project area for the preferred route.
- b) Did Manitoba Hydro take forestry and mining information into account when choosing the preferred corridor?
- c) Please indicate whether Manitoba Hydro was using the public FRI, or non public data and information.

84. MWL Mammals Tech Report

References:

“Additional unpublished information, specifically aerial moose surveys, was provided for use in this report by Manitoba Conservation. This report has (sic.) includes data gathered up to March 31, 2011.” (Mammals Tech Report, p. xiii)

Requests:

- a) What did Manitoba Hydro conclude from the moose surveys?
- b) In light of the specific actions taken by the Manitoba government to close the moose hunt through significant portions of the regions where Bi Pole III would be built, what mitigation steps will Manitoba Hydro take, and were these mitigation steps arrived at through discussion with Manitoba Conservation?
- c) Did Manitoba Hydro use historic information as to location, size and numbers of moose in moose ranges through the study area, project area and preferred route in coming to its conclusions?

85. MWL Moose Habitat Map – Local Study Area

Reference:

The 8 – 2 map legend includes ‘ predicted habitat ‘ for Moose. The listing of figures references this is as being page 8 – 368. There appears to be no such page. No context is provided in the Maps for this habitat. Manitoba Hydro is limiting public map information so that predicted Moose habitat is show only in the preferred corridor. No previous, or historic moose habitat is provided.

Request:

Manitoba Hydro to provide map and explanation of moose habitat in the project study area, also, with clear indication of the range area of a single moose.

86. MWL Map 8 – 1 “Woodland Caribou”

Reference:

The legend on Map 8-1 “Woodland Caribou” has a series of Range Extent coloured blocks, which are also used on the map.

Request:

Are these the names of woodland caribou herds? If so, why is the information missing?

87. MWL Tables 8.2 – 9 “Birds Content”

Reference:

The table consistently indicates habitat loss from the ROW for a several groups of birds. The Local Study Area is listed as the geographic extent for each group of birds.

Requests:

- a) Manitoba Hydro to provide its methodology for arriving at consistent notation that potential environmental effects to these groups of birds are not significant.
- b) Manitoba Hydro to indicate what its environmental effects rating was for these same groups of birds in the whole project area and in the other corridor options – in order to complete the information provided.
- c) Manitoba Hydro to indicate whether its methodology arrives at a Not Significant assessment because the local study area is small.