

June 4, 2012

Memo to Clean Environment Commission and Hearing Participants

We are providing some early comments regarding deficiencies in the Bi Pole III EIS. They are not to be taken as complete or final at this time.

Introduction

We appreciate the opportunity to provide comments on the Environmental Impact Statement (EIS) that are at an initial or high level – as requested Friday June 1, 2012.

Project justification & Needs for and Alternatives To (NFAAT)

- The NFAAT section is inadequate.
- The justification of the project needs to be clearly delineated. MH claims that the project is primarily about reliability, but there are numerous indications in the EIS of how this project fits into the future development plans of MH. Eg. Converter construction camps will be built for possible future re-use for Conawapa construction, Bi Pole III will be needed to fulfill export contracts, etc. The EIS therefore needs to clearly state during ordinary operation, peak usage and summer vs. winter, what percentage of power travelling down Bi Pole III will be used by Manitobans vs. what percentage will be used to fulfill export obligations? Resource planning information should be more complete.
- The EIS also needs to disaggregate the two separate risks of converter station failure, and transmission failure. Particularly when one considers that a second southern Converter station has already been licensed in Manitoba.
(*See: EIS p. 3-135*).
- No attention is paid to other energy alternatives such as demand-side management, emergency load shedding, wind, and solar. These alternatives need to be considered in the EIS NFAAT section.
- The EIS also needs to break down the risk of failure after Bi Pole III is constructed. In other words if the risk with Bi Pole I & II is presently a probability of failure of 1 in every 17 years, what will be the probability of a triple failure after Bi Pole III is constructed? Also the specifics of a Bi Pole I & 2 failures in relation to Bi Pole III should be provided.

Project Study Area

- The Project Study Area is huge. By using such a large study area the proponent, Manitoba Hydro (MH), is able to scope some effects as non-significant because they only effect a small portion of the study area.
- The large Project Study Area appears to be selected on the basis that initially MH was considering three routes. However, because the far west option was not selected the study area is lop-sided with the preferred route touching the eastern edges of the study area, while also being a considerable distance from the western edges of the study area.

- The Study Area appears deficient in spots at the Regional and perhaps Local Study Area scales. E.g., the line is near or on the boundary or over the boundary near Sipiwesk Lake. E.g., if there is a caribou herd in this area, the Study Area would be deficient. When a proponent is allowed to self assess the scrutiny and review of the proponent's assumptions – especially if considerable public lands, funds and resources are involved – needs to be thorough. The project, study, local and corridor areas should be explicitly provided in maps, and explained, with full explanation as to variances, etc. It is especially important to note the frequency with which the 'area' used borders on water. Manitoba Hydro needs to explain its assumptions and reasoning for the areas used, and provide clarity as to which 'results' from self-assessment apply to which scale or scope of area.

Reliance on Desktop Studies

- Hydro conducted very little 'field work.' This means they did not look at the lands, they looked at reports, and computer information.
(*See: pages 8-10, Manitoba Wildlands March 16, 2012 Comments: Bi Pole III Transmission Project EIS*)
- The lack of field studies means:
 - Very little Traditional Knowledge included/ taken into account.
 - Few archaeology studies/ sites – and next to no work to identify cultural, sacred sites to protect.
 - Animals, plants, fish, birds, weather, lakes and river information is only technical.
 - Both cumulative effects assessment, and sustainability contents in the EIS are weaker as a result.
 - The proponent needs to provide clear information as to the variance possible in their conclusions given the lack of fieldwork to support conclusions in the EIS.
 - The proponent also needs to provide methodology used when several sets of digital data are mapped, provide the spreadsheets for these sets of data, and explain what variances are likely, what they took into account in their methodology when combining sets of data.
- As we note in our March 16, 2012 Comments letter on the EIS: “The fact of the matter is that much of Manitoba, particularly the northern two-thirds of the province, have only had limited field studies performed. Relying on sparse data could result in erroneously drawing the conclusion that no species of concern will be impacted, when in fact the truth may be that the species are there and they have never been recorded.” This statement is also equally true for archeology studies.
- The best solution for the over-reliance on desk studies would be to perform field studies. An additional way of dealing with this deficiency could be to use predictive modeling whereby the number of observations are multiplied by a certain factor to take into account the under-representation of species and archeological observations that result from a reliance on sparse or aggregated data.
- We are concerned that only the last ten years data was used to come to a series of conclusions regarding trapping. There is little relevance in only ten years data. And if desk studies were the basis for much of the EIS contents then the Manitoba government produced and holds trapping data that goes back at least 50 – 60 years. Why was it not used?

- Additionally Manitoba hydro holds considerable data regarding species and archeological data collected during the Wuskwatim project and proposed Conawapa Project and environmental assessment. A lot of the data/information used in the Bi Pole III EIS is privately held, cannot be checked. MH should make this data available. It is unusual to see this kind of use of private data in a Class Three data in Manitoba. We would like to know what the CEC policy is in this regard.

Greenhouse Gas (GHG) Emissions Study

- In our March 16, 2012 comments letter we note several problems with the GHG study
 - The GHG report also relies on desktop data, primarily relying on the Canadian Forest Service data.
 - It is unclear why only 3,000 hectares (ha) of land disturbance is selected. An explanation is required. If this is based on the width of the corridor only then Manitoba is contradicting the methods and outcomes from previous transmission project reviews.

(See: pages 9-12, Manitoba Wildlands March 16, 2012 Comments: Bi Pole III Transmission Project EIS)

Wetlands

- One of the most surprising assumptions in the EIS is that not a single wetland, peat, bog, fen, or muskeg area is disturbed by building or operation over the entire length of 1,384km corridor assumes there, yet ~40% of Manitoba lands mass is wetlands. Given that the exact siting locations of the towers have not been determined how can MH make this conclusion? An explanation, mapping of wetlands, and methods are required.

Valued Environmental Components

- Integral to, and critical to, EA is the selection of Valued Ecosystem Components (VECs) and Valued Social Components (VSCs). Section 4.2.6 of the EIS lumps all as Valued Environmental Components.
- **There should be explicit indication of the basis for selection of the various VECs, e.g. species, someplace within the documentation, including why certain VECs may have been considered and rejected (e.g., VECs suggested or important to First Nations).** The basis for selection of individual VECs is inconsistent and sometimes lacking. Chapter 8 provides the basis for some. For example:
 - The EIS states “Mammal VEC selections were made using a structured process assessing a number of key attributes. These included: evaluation of all mammal species’ provincial or federal status and regulatory status, the importance of the species to local cultures and resource users, its ability to function as an umbrella species, its ability to function as an indicator species, its ability to function as a keystone species, the availability of information to construct models of habitat preference for the species, and the relative influence that a transmission line may have on the species population and its habitats.” (8.2.6.3). However, for example, there is no text that provides the basis for why moose was selected. The text in section 8.2.6.3 is simply a list of standard criteria used in the selection of VECs. Nor is there any explanation as to why other large mammals were not included, such as bears. It should be noted that VECs do not always have to be already at risk. Inclusion of VECs and species not at risk only makes sense.

- There is greater detail respecting some of the birds selected as VECs ... “VECs focused on federal and provincially listed species at risk, waterfowl and other waterbirds, colonial waterbirds, upland game birds, birds of prey, and woodpeckers. Selection was made following evaluation of each species’ provincial or federal status or regulations, its importance to local cultures, its ability to function as an umbrella species, its ability to function as an indicator species, its ability to function as a keystone species, the availability of information to construct models of habitat preferences for the species, and in part, the relative influence that a transmission line may have on the species population and habitats.
- “In terms of specifics, the following species have additional specific attributes as indicators of community health: mallards are an indicator of wetland bird associations; sandhill cranes are an indicator of global sparsely treed black spruce or tamarack peatlands and other wetland bird associations; yellow rails are an indicator of sedge-dominated wetlands and other wetland bird associations; bald eagles are an indicator of mature northern and western riparian forest; sharp-tailed grouse are an indicator of grassland, shrubland and forest mosaic bird associations; ruffed grouse are an indicator of deciduous and mixed wood forest bird associations; pileated woodpeckers are an indicator of mature mixed wood forest bird associations; olive-sided flycatchers are an indicator of northern and western wetland and early successional (i.e., fire) bird associations; Sprague’s pipit are an indicator of southern and western dry native grassland bird associations; golden-winged warblers are an indicator of shrubland and shelterbelt bird associations; and Canada warblers are an indicator of southern and western mature deciduous forest dominated bird associations.” (8.2.7.3).
- “However, even with this relatively great detail, there is no full explanation of the basis for selection of each of the VECs. For example, despite the indication that “VECs focused on federal and provincially listed species at risk”, there is no basis for why some species at risk were selected while others found in the area (e.g., Common nighthawk) were not. Perhaps nighthawk was not included because the line might result in improvement to nesting habitat ... e.g., I have observed the species in logged forests in my area ... but how can we know? There should be documentation detailing the full basis for selection of some species and rejection of others.
- “VECs were chosen based on field studies, desktop review, literature review, stakeholder input and professional judgement.” (8.2.3.3). These are not criteria that one would use to choose VECs, VECs are selected based upon values, e.g., species at risk, value to users (e.g., moose as a resource for aboriginal people or soil productivity for farmers) and other criteria. The list is generally of information that informs the decision.
- We are concerned that partial, or small amounts of information and data are being used as the basis for large assumptions and assessment conclusions. The proponent needs to clearly state that the sets of data used in the EIS cannot be taken as complete or to assume that all data and information about a species is available.

- **In the absence of appropriate detail respecting the selection of VECs, there lacks justification for the selection of some of the VECs and their suitability can only be questioned.** For example, where is the scientific literature (or other basis) to justify selection of mallard as an appropriate indicator of wetland bird associations? The EIS states that: “mallards are an indicator of wetland bird associations” (8.2.7.3). However, this not correct, as different species of ducks are adapted to different wetland habitats. While the mallard is a generalist that utilizes many types of wetlands, as a ‘dabbling’ duck the species selects and is adapted to less permanent wetlands, including class 3 wetlands that would not be used by a number of species of birds (e.g., yellow-headed blackbirds). As an indicator of the semi-permanent and permanent wetlands used by yellow-headed blackbirds, another species of duck or another species of bird would have been an appropriate choice.
- Respecting the aquatic environment, including fish, Chapter 8 indicates, “VECs were chosen based on field studies, desktop review, literature review, stakeholder input and professional judgement.” (8.2.4.3). It seems unlikely that aboriginal peoples would not have expressed concern about fish, again reinforcing the need for explicit indication of the basis for selection of the VECs.
- **Some other comments on VECs.**
 - **Aquatics.** It is highly likely that concern over aquatic habitat for species like beaver, muskrat, mink, otter were identified in the four stages of public and community information sessions to select this preferred corridor. Manitoba Hydro needs to explain the lack of aquatic species in the EIS information. Beaver habitat was selected, but beaver habitat differs from that of muskrat and mink.
 - **Birds and bird habitat.** Upland game birds: the two selected species seem to exhibit a southern Manitoba bias, as spruce grouse may be important to the north. Northern bird species and their habitat should be added to the EIS.
 - **Resource Use.** Hunting is dealt with generally. It is not clear if conclusions are generalized so that trapping and hunting impacts and risks to species are combined. Information for any species needs to be explicit. Hunting and trapping need to be separate in analysis and conclusions, and also specific to the species. For moose the EIS should start with the current bans on hunting moose in two larger regions of the province, and the basis for these governmental decisions. The proponent then needs to explain how Bi Pole III will not affect moose, and other specific species.

Caribou

- Bi Pole III EIS frankly acknowledges that the project will have an impact on woodland caribou (listed by both Manitoba Endangered Species Act, and Canada Species at Risk Act, stating: “Boreal woodland caribou (listed at Medium Risk in two ranges and Low Risk in a third range) will be negatively affected by the Bi Pole III HVdc transmission line. A number of core winter use and summer calving and calf-rearing areas are being traversed... the potential of long term residual impacts are not certain and will require on going monitoring and adaptive management...” (pg. 8-128). 7 herds in total may be impacted by the BP3 project (habitat, calving, wintering, food sources, etc.)

- The EIS is deficient in that all woodland caribou herds that utilize the project area, and study area should be included in the EIS. The range area for these woodland caribou herds are as relevant as the proponent's areas. That is the question is not just how the caribou affect the project, study, corridor areas. When a proponent reverses the onus and discussions how a VEC, species, traditional practice on the land, or other land use may affect the proponent's project it becomes clear that the proponent does not understand its responsibilities.
- It should be noted that the preferred corridor appears to actually put more woodland caribou at risk than other options for the corridor.
- It should be noted that the EIS seems to ignore the fact the preferred corridor will impact at least 4 woodland caribou herds. The utility selected the preferred option for this transmission corridor – which the EIS admits impacting woodland caribou including calving areas. Also one of the deficiencies in the EIS scope artificially decreases the stated impact on these woodland caribou herds. A three-kilometre buffer on each side of the transmission corridor in no way reflects the current scientific OR traditional knowledge regarding woodland caribou range areas, wintering or calving areas. We do not see information about risk to the primary winter food source for woodland. The CEC may wish to review the record regarding woodland caribou in the Wuskwatim Transmission EIS, review, record from Manitoba Hydro, and the license. Certainly there was no standard of a three kilometre buffer on each side of the transmission line...Clearly the 'buffer' or impact zone varies for different species based on a range of conservation biology factors for that species. So the EIS is deficient here and deficient in its identification of buffers...
- Manitoba Hydro needs to solve the deficiencies in the EIS about woodland caribou. There is considerable information in the records for the Wuskwatim projects review regarding woodland caribou. And since those reviews and hearings the scientific work across woodland caribou range areas in Canada has increased dramatically. We expect to see additional information in the supplemental filing, based on clear direction from the CEC.

Moose

- EIS states (Ch. 8 – 102-4): "Transmission lines are expected to have little impact on habitat availability for Moose." yet it goes on to identify potential negative effects of poaching, ATV use, predation and disease. The EIS claims majority of potential negative effects were "mitigated during the planning and routing process." Mitigation measures include restricting hunting and firearm access among on work camps, performing construction in winter to avoid construction during calving season, pre-construction surveys to identify and locate "mineral licks" and other important habitat areas.
- First given the many residual effects listed, it is questionable that it is "not significant" as indicated in EIS. Second, pre-construction survey should be should be done pre-license issuance. SCN members probably have information on where these sites are. This shows how incorporating SCN concerns would have improved the EIS.
- We are concerned at the opportunistic selection of construction impacts for some species and VECs in the EIS language, leaving out long-term operation of the transmission project and subsequent impacts. We would suggest that the CEC require Manitoba Hydro to provide EIS content that explicitly identified effects and impacts during planning, during construction, and during operation of this transmission project through the proponent documentation.



- Some of the information on moose is quite dated, and some is simply not true for some of the ecosystems in the study area. For example, in Chapter 6 of the EIS (6.2.6.5).
- Although noting that “Moose are commonly found in forest, shrub and wetland habitats from Red Deer Lake, north of the Porcupine Mountain area, south to areas adjacent to the Duck Mountains and Riding Mountain (Pattie and Hoffmann 1990),” the EIS also indicates that “Moose are associated with riparian habitat, especially areas featuring willow, a key forage species. In the absence of such habitat, moose select stands that originated after fire or logging, which feature early successional vegetation (Doerr 1983).”
- Firstly, certainly there is more current literature than a paper from 30 years ago. Secondly, citing studies from Ecoregions that differ substantively from those in the Study Area may not be appropriate. The Doerr study is cited as “Doerr, J.G. 1983. Home range size, movements and habitat use in two moose (*Alces alces*) populations in southeastern Alaska. *Canadian Field-Naturalist* 97:79–88”, and the ecosystems found there are likely to differ substantively from those of the Study Area or the majority of the Study Area. For example, while riparian habitat certainly **can be** of high importance to moose within the Study Area, depending on the specifics of the riparian area, other habitats within the Study Area are of very significant value and often of far greater value. For example, some of the extensive ‘shrublands’ found in proximity to Red Deer Lake and also near Novra are of extremely high value as winter foraging habitat for moose, and location of the transmission line in proximity to these shrublands would be of far more concern than location of the line within a riparian area. Similarly, some riparian areas within the Study Area would be of little value to moose. Further to this, within the western portion of the Study Area, important winter foraging habitat includes thick hazel beneath mature to old aspen in many locations, and this may also be true also for some of the habitat within the aspen parkland of Manitoba (e.g., per the attached picture for aspen parkland in Elk Island National Park, for an enclosed area that includes deer, elk, wood bison, and a moose density of greater than 10 per square mile). Again, this hazel habitat could be considered to be of equal or greater value than many riparian habitats and perhaps generally of greater value than willow-dominated riparian areas for this part of the Study Area. The importance of the previous discussion is that the text suggests that the authors of the EIS do not well understand moose habitat at the Project Study Area scale. We request that the CEC specify that Manitoba Hydro should provide up to date technical information as the basis for its EIS contents, here and elsewhere.
- Manitoba Wildlands wonders if Manitoba Hydro experts are lacking in knowledge of conservation biology with respect to large mammals and large ungulates in particular. The size of the species range area is a factor of any conclusions about effects and impacts, and should be assessed accordingly.
- Similarly, Table 9.2-1 states “Other wildlife species prefer early-seral stage forests and are attracted to forestry activities; including some migrant birds and ungulates such as deer, elk and moose, the latter being attracted by the new abundant browse.” is simple and ignores the perhaps higher value of older aspen forests with a shrub understorey (i.e., there can be, at times, perhaps adverse impacts of logging some ecosystems for moose).
- Thermal cover and other means to mitigate heat stress is particularly important to moose, as the species begins to expend energy to thermo regulate at -5 C in the winter and 14 C in the summer. A recent publication in relation to a significant moose decline in Minnesota implicated warm temperature, and expressed concern over the potential of global warming to impact on the

viability of moose populations (Lenarz et al. 2010. J.Wildl.Manage). The importance of thermal cover received little to no attention within Chapter 8, and should perhaps also have been considered in the context of cumulative effects in those areas where forestry development occurs.

- “Moose populations in the western portion of the Project Study Area are in decline and there are a number of conservation hunting closures that have been implemented to rehabilitate moose numbers. Game hunting areas (GHAs) which have been closed to allow for moose populations to recover from decline include GHAs 13, 13a, 14, 14A, 26, 18, 18A, 18B and 18C.” (6.2.6.5). The statement does not properly indicate the extent to which some populations have declined in the vicinity of the proposed transmission line. In particular, it appears that the decline in GHAs 14 and 14A, through which the line would pass, has been such that the population can be viewed to have been almost extirpated over the last 20 years, and the population must be viewed to be in peril. To characterize the decrease in numbers within these two GHAs as a “decline” is not accurate. Specific detail is required in the EIS on a GHA basis, and the population status must be accurate.
- The potential for sensory disturbance impacts by snowmobilers is noted (8.2.6.2). However, this form of disturbance may be particularly important in extensive areas of flat terrain, including the potential to facilitate long-distance trail rides and overhunting via trail establishment.
- There is a general assertion through the EIS that logging of forests is beneficial to moose via the creation of early successional forest for browse. However, the experience is that logging has often not been beneficial to moose in Manitoba. For example, there has been a substantial decrease in moose populations in western Manitoba coincident with the major increase in logging activity following the arrival of Louisiana-Pacific Canada Ltd.
- Some of the habitat in Map 8-2 likely in areas where there are no moose.
- The assessment seems to focus on the impact of moose at the Local Study Area level; however, a linear development like a transmission corridor could impact beyond the Local Study Area, as many individual animals cross the line during their annual cycle of movements, and as dispersers. For example, it is almost certain that moose from the Porcupine Mountain have historically moved into GHA 14 on an annual basis (e.g., in relation to snow conditions), and as ingress. Given that the population of GHA 14 is near extirpation, that the Porcupine Mountain population has been in decline and that high levels of logging continue in the Porcupine Mountain (Cumulative Effect issue), the impact of the linear corridor on the western GHA 14 portion of the population should be a consideration. Given the status of the population of GHA 14/14A, assessment specific to this area should have been conducted. In effect, the conclusion in Table 8.2-8 that the line could have Local Study Area effects only for Geographic Extent is questionable for the transmission line in the vicinity of the Porcupine and Duck Mountains.

First Nations & Treaty Rights

- The EIS seems to think of Consultation in terms s. 35 only. There needs to be an understanding that Treaty rights are also impacted. Bi Pole III will cross treaty areas # 1, 2, 3, 4 - each of these treaties varies and need to be examined individually. Perhaps Manitoba Hydro can provide its operational policy about First Nation rights and Aboriginal rights – that is uses in negotiations,

planning, and negotiations. From the EIS content to date it is unclear whether Manitoba Hydro understands the requirements and obligation for meaningful consultation, accommodation and potentially compensation. So both the Manitoba government policy and Manitoba Hydro policy should be added to the EIS with explanation as to the proponent's responsibilities.

Impacts From Converter Stations

- The EIS lists potential impacts from construction of the converter stations:
 - insulator oil leakage;
 - coke leachate from ground;
 - leak of gases from sealed insulators, etc.;
 - risk of fire at converter stations
 - EMF risks – cancer, communication trouble

These risks need to be more clearly quantified, and specified to each station – in planning, construction, and operation stages.