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Hugh Currie's Post-EA Questions
August 12, 2011

Issues to be addressed:

1. The inundation distance for the Chute and Third Falls are a moving target. The Chute has changed from 2.8 km to 6.4 km and the Third Falls proposal is up in the air from 14 km to 30 km which would flood to the base of the Chute. With an inundation distance now of a total of 36.4 km, should these two dams that are operating in tandem be assessed under one EA.

   Xeneca Response: Please note that the two generating stations will be operated independently of each other. The Third Falls EA Report, if and when it is submitted, will address the issue of cumulative effects.

2. With the 6.4 km of inundation all of the natural spawning zones that walleye use will be lost. Also, pike, speckled trout, perch, ling and whitefish spawning locations will be altered dramatically as these species all spawn at different times of the year. This has been stated many times in the EA. What compensation will be put in place to maintain the population of all species; restocking, fish ways, spawning beds if at all possible? Also let's not forget Lake Sturgeon that has been angled at the base of the Chute on two different occasions, where will they spawn?

   Xeneca Response: Replacement of spawning habitats will be determined by MNR and DFO and Xeneca is happy to take this on, as well as any other mitigation measures. A monitoring program will be required to address the compliance and effectiveness monitoring of these habitats.
   As for Lake Sturgeon, based on findings of the background review, natural barriers in fish passage and absence of this species during field investigations, it has concluded that Lake Sturgeon are not a Species At Risk (SAR) issue at this site.

3. Is there an agreement between MNR and Xeneca regarding flows to ensure legislated obligations under the Lakes and Rivers Improvement Act 1990? This would apply to all portions of the river affected by the 2 dams. Lakes and Rivers Improvement Act. O.Reg. 454.96. 2D – the purpose of this act is to provide for the management perpetuation and use of fish and wildlife and other natural resources dependent on the lakes and rivers. Xeneca has not demonstrated that they have compiled adequate information for the Chute site to comply with the Act.

   Xeneca Response: This is a post-EA approvals process. Please refer to *Lakes and River Improvement Act* "Location Approval" and "Planning and Specification Approval." Your comments and input will be passed along to the MNR.

4. There are many paragraphs in the EA that state that there will be residual and negative effects. Why then would the construction be permitted to proceed if there are no guarantees that fish and wildlife habitat will not be destroyed. "No Net Loss".

   Xeneca Response: Xeneca's position is that there will be a positive overall impact from the project. We will work with DFO to be compliant with Fisheries Act and CEAA.

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5. Note dated May 30, 2011 MNR Chapleau – Project description insufficient to conduct a thorough review. When will this project description be complete?

Xeneca Response: The EA Report contains the newest information for review. Once approved, it will act as the guideline for permits and approvals. MNR, under the *Lakes and River Improvement Act,* will approve final design through the Plan and Specification Approval. Project Descriptions (PD) are used at the kick-off of a project to assist regulators in decision-making; the PD is not a detailed design document.

6. Volume 1 page 10-15 **Environmental Characterization Report** – has the report been completed for the Crown Reserve or Groundhog Park?

Xeneca Response: Construction and operation of The Chute GS have been design so as not to affect the Crown Reserve or Groundhog River Park.

7. Volume 1 page 11-15 **Social** - have the social issues been addressed: page 12-15 **Concerns** – why were these not addressed before completing the EA report?

Xeneca Response: We believe that all social concerns have been adequately addressed.

8. Volume 1 page 6-15.4 – Was the acid rock drainage study complete?

Xeneca Response: Once the rock to be excavated and used on site is identified, ACD studies will be completed prior to any disposal on shorelands or in water. MNR will issue permits for this activity.

9. Permit to take water O.Reg 387.4 – has this permit been applied for?

Xeneca Response: Permitting takes place after the EA is completed.

10. Certificate of Approval for noise emissions. It is perceived that the nearest receptor would be the town of Foleyet 14 km away. This would be a false outlook, the campers, Eco tourists, anglers, hunters, trappers and canoeists are all the real receptors and are all within close proximity to the proposed Chute GS.

Xeneca Response: Thank you for this comment. This will be addressed in post-EA approvals

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11. With 6.4 km of inundation, fluctuating daily during all seasons of the year, what will aquatic animals do for habitat dwellings during the winter, spring, summer, and fall seasons?

Xeneca Response: The flooding of the new headpond and its water level management over the fall and winter periods will be planned so as to allow aquatic mammals such as beaver, otter, etc. to construct and maintain lodges/dens without being drowned or frozen out during these seasons.
The headpond will create additional habitat for certain species and Xeneca will discuss activities such as wild rice planting with agency and stakeholder input so as to improve this aquatic and water fowl habitat and create a food source for humans and these species.

12. There are many cold water species that have been identified in the Ivanhoe River by NRSI - speckled trout, ling, and lake whitefish. Xeneca has stated in the EA that cold water species will not be at risk. If the head pond is depleted and water temperature (approximately 77 degrees Fahrenheit August 4, 2011) flows down stream and fills the reservoir what will be the average temperature of the water in the reservoir.

Xeneca Response: Due to the small amount of storage in the headpond (a few hours at most flows), there is not enough residence time to significantly alter water temperatures. The temperatures in the deeper pools within the headpond area (where cold water species may be located) should not be significantly impacted by changes in flows in the reservoir area. At this time, there are no plans to dewater the headpond during operations. Discussions will be held with Agencies on the merit of monitoring water temperature and altering operations if – in the unlikely event – there was a change in water temperature. Water temperature monitoring may be required to ensure optimal flows occur during fish spawning.

13. Why was the Archeology study not completed?

Xeneca Response: A Phase 1 Archaeology study was completed and is in the EA Report as required. Phase II is not required in the EA Report and is conducted as part of post-EA Report process. If interested, the results can be provided once the Phase II process is completed with the permission of the Ministry responsible and, if required, the Aboriginal Communities.

14. Ontario Resource Based Tourism Policy 1997. The wilderness used by this industry plays an important role in conserving the environment for future generations. Do stake holders still have a say in the decision making and considerations of the environment, social economic, and cultural effects; and if so why is the provincial government now trying to put these sensitive areas of the north on a path of destruction?

Xeneca Response: Before, during and after the EA Process, Xeneca will listen to and try to address all stakeholder comment and concern.

Ivanhoe River is designated as a General Use River and as such waterpower development is an approved activity with the expectation that current and future users will work together to share the resource. The Groundhog River, which is in close proximity of the Ivanhoe River (Ivanhoe River is a tributary of the Groundhog River), was designated a Park in 2006 for the benefit of local recreational users and the tourism industry. Numerous waterpower projects were cancelled at that time on the Groundhog River.

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Stakeholders need to consider the designation of the Ivanhoe River and that the Groundhog River has been reserved for the uses raised by the stakeholder. Opposition to the Ivanhoe River waterpower potential being developed brings into question the merits of setting aside the Groundhog River for specific activities and at the same time prohibiting waterpower development.

15. Who is going to monitor the Q80 during the low flow of the year and will the sum of the two Q80's (Chute and Third Falls) have an effect on the requirement for the flows below the Third Falls for the Groundhog Park and Crown Reserve.

Xeneca Response: It Is up to Xeneca to record flow levels and it is up to MNR to request these records. Failure to meet defined operational parameters (Q80 as compensatory flow is still be determined by the proponent and MNR) has penalties under the legislations and regulations governing the Class EA process (MOE) and Water Management Planning (MNR). The Chute GS will not affect Groundhog River Park or Crown Reserve.

16. It is stated that all electronic monitoring will be done remotely by Xeneca. Who will be policing them? All critical data including flow reports should be forwarded to MNR Chapleau with soft ware that flags substandard operations.

Xeneca Response: It Is Xeneca's responsibility to record flow levels and MNR's responsibility to request these records. Your input will be passed along to MNR.

17. It is written in the EA time lines are tight. Why then did it go to press with so many studies not completed? Two years of data is not enough time to thoroughly examine the river and the effects these two dams will have. A 7 year spawning cycle for Lake Sturgeon for example would have been missed.

Xeneca Response: Our contract with the Province stipulates that the project must be online and connected to the grid within five years. The EA report is complete. Xeneca completed one season of study for the EA Report. This is all that is required to complete *New Projects on managed waterways* under the Class EA which is a 12- 18 month process. Xeneca has provided this study work and its results in the Class EA for review.

Xeneca in working with Federal Agencies has determined that additional data will be required for future Permits and Approvals and thus additional study work would be prudent. Therefore, a second year of data collection is underway.

18. In the EA, Xeneca is constantly pressing the MNR for permits but Xeneca has not been provided all pertinent information required to receive these permits.

Xeneca Response: This question is confusing and Xeneca requests clarification. Please define which permits Xeneca has requested outside of EA Report requirements. Xeneca has requested permits for EA Report which may have other applications thereafter in permitting and approvals process.

Ministerial letters issued by MNR in 2009 for FIT projects provides for cooperation from MNR to conduct studies which entails the issuance of permits.

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19. Volume 2 page 2-2 Six years of data is not sufficient to generate a reliable flow series so other flow records in the region have also been accessed to synthesize at the project site. How can this be quantified as OPG has control of other dams in the region and water flows are not consistent for example, OPG lowered Horwood Lake 8 feet during the 2010 spring runoff which took almost one year to regain its level.

    Xeneca Response: Our specialists believe that six years of data is sufficient to generate a reliable flow series. Further flow data is being collected at the sites to confirm results. MNR will be engaged prior to and after operations on operational issues. This will be incorporated into the Water Management Plan.

20. Will a canoe portage be installed with danger signs upstream to facilitate the safe passage around the site?

    Xeneca Response: If applicable, yes. Our complete safety plan and strategy will be available in the coming months.
    Xeneca is open and happy to engage with stakeholders on this issue and other activities to improve and enhance recreational use and tourism.

18. Safety – during the low flows when Q80 is in effect and the dams are not generating power after 7 PM there is a potential that the river will not be navigable by anglers as they try to come upstream at 10 PM when prime time fishing is complete. Is this not covered under the Navigable Water Protection Act? Winter anglers will be at risk as ice conditions will be unsafe due to fluctuating water levels. During the summer, how much of the river will be inaccessible for those who wish to fish from shore and in the rapids? A statement by Mark Holmes "We are not OPG and we will not be fencing the river." Is this a safe practice?

Xeneca Response: Our complete safety plan and strategy will be available in the coming months.

Xeneca is open and happy to engage with stakeholders on this issue and other activities to improve and enhance recreational use and tourism.

Mark Holmes' statement refers to our policy of working with users to minimize inconvenience and ensure recreational users and tourism can continue to safely access the site. Xeneca is open to discussions about building a boat launch, dock and/or other enhancements for hunters, anglers and other users at the site.

Q80 refers to compensatory flow which is yet to be determined. Compensatory flow is the flow that is constant whether or not the power plant is operating. Please clarify your assumption that the power plant is not operating after 7 pm.

Regarding your comments on navigability of the river, please refer to the *Federal Navigable Waters Protection Act*. Xeneca will be required to ensure navigation is maintained.

Please refer to Third Falls EA Report if/when submitted. Input will be used as a positive benefit downstream of Chute site maintaining higher water levels for navigation. Xeneca will follow up to determine if this is currently an issue

Can the stakeholder please clarify if low water levels upstream of The Chute site are currently an issue? Headpond and water control could be used to improve navigability.

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19. The MNR has stated their concerns many times in the EA that loss of fast water habitat, wildlife, and other natural resources dependant on the Ivanhoe River are not impacted due to the alteration and negative impact on user groups and the overall economy of the north.

Xeneca Response: The Ivanhoe River is designated as a General Use River and as such waterpower development is a approved activity, and the expectation is that the current and future users will work together to share the resource. The impacts of the project, temporary and residual, have been identified. Xeneca will do its best to minimize all impacts including measures such as design change, construction mitigation and adaptive management based on pre- and post-construction monitoring of environmental components.

20. Biodiversity Strategy (2005) – This policy has a number of goals that it addresses; the protection of genetic species and eco system use and to develop the biological assets of Ontario sustainability. The Lake Sturgeon are part of this strategy. Why is this not the case for a SAR at the Chute? With the low count of sturgeon, can we afford more loss due to the run of the river system?

Xeneca Response: Based on findings of the background review, natural barriers in fish passage and absence of this species during field investigations, it has concluded that Lake Sturgeon are not a SAR issue at this site.

24. What will be the mortality rate of fish and wildlife in the trash racks and turbines as the run of the river elevations are constantly changing. Has this been added into the equation? What happened to "no net loss"?

Xeneca Response: The intake and resultant velocities in a run-of-river operation will take into account the swimming capabilities of existing fish species. It will be designed to minimize the potential for impingement and entrainment. If there is found to be significant entrainment in the monitoring period, further mitigation such as use of bubbles, lights, etc. will be investigated. Although other wildlife species tend to avoid the intake, monitoring during operations will include observations for this issue. 'No net loss" will be mitigated by such measures as habitat creation, stocking, etc.

21. LRIA – Purpose of the Act. 2-E the protection of the natural amenities of the lakes and rivers and their shores and banks. This is not the case in Xeneca's history, for example the Misema River near Englehart.

Xeneca Response: Any generating facility placed on a river for the purpose of peaking (to any extent) will undoubtedly change a river environment into a lake environment. Xeneca will mitigate and meet requirements by agencies under legislation and protect any Species at Risk affected by the project in cooperation with appropriate regulatory agencies.

Misema waterpower plant ("Misema") is not a Xeneca project. This project was built by Canadian Renewable Energy Corporation ("CREC"), which was then purchased by Canadian Hydro Developers. Some of Xeneca's present staff were involved with CREC's building of Misema and involved in its operations. The building and operations of Misema were beyond reproach during CREC's ownership. Please bring your concerns to the attention of the MNR and MOE so they can take actions against the current owners. Please advise Xeneca staff and the Ontario Waterpower Association ("OWA") of your specific concerns (please be detailed) because both organizations support responsible operation of waterpower plants. If they have merit, Xeneca will provide support as may the OWA.

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22. Volume 1 Page 4-5 Sediment trapping/starvation issues mobility of fine silts. Action may be required in 6 years. This statement is in contradiction to other statements in the EA stating that silt will have no effect. Six years will be too late to adjust flows.

Xeneca Response: Due to the small amount of storage in the headpond (a few hours at most flows), there should not be enough residence time to significantly build up silt behind the dam. There should be sufficient silt released downstream especially during spring freshet and fall rains to provide additional nutrients to the river below the dam as has been experienced historically.

23. There is a proposed fill embankment up stream of the Chute. Will it and the fill embankment proposed by the First Nations as part of the main structure of the dam be susceptible to floods and erosion?

Xeneca Response: The design of these dams and materials of which they will comprise must be approved under the Lakes and Rivers Improvement Act. Dam Safety Guidelines provided by the Canadian Dam Association will also be considered in the construction and operation of the dams as well.

24. Who is going to pay for year round road maintenance to the dam - Xeneca or the Provincial Government?

Xeneca Response: Xeneca would be responsible for road maintenance.

25. Transmission line corridors are also a moving target and an issue with MNR Chapleau. Has Xeneca come up with a plan and why was this not complete before the EA was published?

Xeneca Response: MNR has not yet provided their official response to The Chute EA. Xeneca continues to seek the most environmentally and economically acceptable routing option for the transmission line from The Chute site based in part on the final Point of Connection selected for the project in consultation with the province. We have created options for the site to reduce the overall line lengths and reduce the impact of this site as well as reducing the consolidated impacts for multiple sites <u>if we get approvals</u> for the other Kapuskasing and Ivanhoe projects in the vicinity.

26. Volume 1 page 5-15 - Are all the permits in place for construction, sediment control, erosion control, and access roads?

Xeneca Response: These permits are issued after the EA Report is complete and Statement of Completion is issued. .

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27. Who will benefit from the assessment of the buildings, dam, and road ways? Will the Town of Foleyet see any of this revenue?

Xeneca Response: Provisions for taxation/ assessment and applications of fees and levies fall under terms of the Municipal Act and regulation set out by the Ontario Ministry of Finance. In Ontario, Gross Revenue Charges (GRC) is paid to some municipalities in which the powerhouse is located. Xeneca supports this type of return to communities that host waterpower facilities. In the case of Foleyet, the project is not within municipal boundaries, and, as such, it would appear unlikely that, at this time, the community would be eligible to collect taxes assessment or GRC on the Ivanhoe River Projects. However, Xeneca has been meeting with Ministry of Finance regarding disbursement of GRC to communities and we would be pleased to discuss how we may put forward a case for Foleyet to realize benefit from our Ivanhoe River projects. Xeneca will also be a good corporate citizen and provide additional support to the community.

28. Notes 3rd page – Richard added that the head ponds were generally small and that little or no alteration would occur as the plants would adjust to compensate and generally maintain head pond levels. If head pond levels are not rising or falling then inflow = outflow. Volume 1 **Forward/Operational Strategy** – when natural flows are below the maximum capacity of the turbines but above the required ecological flow, water will be stored during the off peak hours for use during the peak hours, affecting water levels upstream and flows downstream. The 2 statements are in the EA and contradict one another. Bottom line – ***water in = power out*** no matter what the cost to the river.

Xeneca Response: When the natural flow in the river is higher than the minimum turbine flow of the plant, there will be no fluctuation on the reservoir level. In this case, reservoir will be maintained at the Normal Operation Level (NOL) (inflow =outflow). If the natural flow in the river is less than the minimum turbine flow, water will be stored in the reservoir for a few hours and plant will be run for a few hours. As described on the operation plan, water will not be stored more than 24 hours and maximum fluctuation on the reservoir is 1 m.

29. I have not found in Volumes 1 & 2 where Xeneca has demonstrated financial security. We are in a fast moving world and new technology is upon us daily. Should an alternative to generating stations be developed and dams are no longer useful, funds or securities should be in place to rehabilitate the structure to its natural original state at the site for example as in the Mining Act which states that companies are responsible for having monies available to reclaim mining sites before construction starts.

Xeneca Response: Financial information of the proponent is not part of Class EA. This was reviewed by the Ontario Power Authority under the Feed-In-Tariff program and deemed sufficient. Xeneca does not plan to decommission the Chute; like so many other stations, it will be rehabilitated in 75+ years. Waterpower is the cheapest source of electricity. If at the time there is a technology shock as you suggest there will be a period of time of incorporation of that technology and Xeneca will work the Agencies to set aside the necessary funds during the adoption period which would take decades. Of course given we do not know future technology we cannot guess at the cost of remediation. Thank you for the input.

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30. Who in the past has paid for decommissioning power generating sites, the owner or the provincial government?

Xeneca Response: Waterpower plants are seldom decommissioned because they are so valuable as a source of economical, reliable and clean electricity (please provide an example if you are aware of one) and instead are refurbished. The Chute can provide clean, reliable and economical electricity for as long as this technology is viable; please see your question 34 and Xeneca's response. Xeneca is under contract for a forty year period on this site and it is expected that the facility will be in operation well beyond the contract period. If decommissioning is to occur, it will be undertaken in accordance with the decommissioning regulations of the day.

31. Public Consultation – no meetings were held in Timmins but 2 copies of the EA were on display there. Local stake holders not invited to a meeting in November 2010. Foleyet Chamber of Commerce was not notified of any meeting. Bait fish harvester for Oats Township not notified of meetings. Local Citizens Committee not notified of meetings.

Xeneca Response: Foleyet was the community chosen for the Public Information Centres as it is in closest proximity to the sites. The November Agency Coordination meeting was not open to the public. It was a kick-off meeting with regulatory agencies and Xeneca staff and consultants.

32. Why is there not an agreement between the Ivanhoe Lake Camper's Association, Xeneca, and MNR Chapleau that water in the Ivanhoe Lake will never be lowered to generate power?

Xeneca Response: While Xeneca has not been in contact with the Ivanhoe Lake Camper's Association, we have been in continual contact with the Ivanhoe Lake Cottagers Association who has raised a similar concern. It may be of note that that operation of The Chute GS will not affect Ivanhoe lake and there are no plans to alter operating plans in a manner that would cause any effects. Xeneca has committed in writing and verbally that lake levels will not be impacted by The Chute project.

MNR has stated clearly there will be no changes in current operations as stated in the Water Management Plan. There will be no change to current lake level regulation at Ivanhoe Lake.

Xeneca is happy to meet with the Ivanhoe Lake Camper's Association at their request.