



Vanessa Enskaitis, Public Affairs Liaison
c/o Xeneca Power Developments, Inc.
5160 Yonge Street, Suite 520
Toronto, ON M2N 6L9

March 3, 2011

RE: Proposed hydro-electric development at Big Eddy, Petawawa River

Sent by email to: venskaitis@xeneca.com

Dear Ms. Enskaitis,

Ottawa Riverkeeper is a grassroots charity formed in 2001 to protect, promote and improve the health and future of the Ottawa River and its tributaries. Ottawa Riverkeeper works collaboratively to inspire others to take action, to encourage responsible decision making, to hold polluters accountable and to recommend alternative practices and policies to safeguard our local waterways. Ottawa Riverkeeper is a member of Waterkeeper Alliance, an international grassroots organization founded by Robert F. Kennedy Jr.

We are writing to express our concerns regarding the proposed “Big Eddy” hydro-electric development on the Petawawa River. Upon reviewing the project description published by Xeneca Power Developments, Inc. in support of the proposal, we have identified the following major concerns and significant adverse impacts which threaten irreversible damage should the project proceed.

1. Protection of Fisheries and Biodiversity

It is well documented in peer-reviewed research that the construction and operation of hydroelectric projects, including “run of the river” projects, affect a river's ecosystem and surrounding habitat. Conclusions are that the abundance of both plant and fish species decline on water courses used to generate electricity -- and that those declines defy efforts to artificially restore the streams to their former productivity.

The Petawawa River is one of only two remaining undammed tributaries of the Ottawa River and supports a wide range of important plant and animal species, including two notable species at risk: the American Eel and the Lake Sturgeon. Given that the headwaters of the Petawawa River are within the boundaries of Algonquin Park, this river is relatively pristine and blocking

access to this vast area of high quality habitat will undoubtedly cause a significant reduction or loss of biological diversity in this freshwater ecosystem. The tributaries of the Ottawa River provide very important refuge and spawning areas for fish and it is well known that there are valuable spawning areas for Muskellunge in the Petawawa River.

Dams and weirs pose a significant threat to migration of species within a river and can threaten the viability of a species if provisions are not made to accommodate both upstream and downstream migration for fish. The presence of the American eel, a provincially and federally recognized species at risk, has been documented in the Petawawa River, and given that this species is considered extirpated from the main stem of the Ottawa River upstream of the Des Joachims hydro-electric facility (slightly upstream of the Petawawa), all efforts should be made to ensure that no new works are approved on this waterway which would exacerbate the threats posed to the survival and recovery of the species. Fisheries experts concerned for the survival of the American eel call for a *precautionary approach* to the management of the species, and as indicated in the American eel recovery strategy currently being developed by the Ontario Ministry of Natural Resources, **successful recovery of the species is highly dependent on the provision of safe upstream and downstream passage at all dams.**

Mitigation Measures for Impacts on Migratory Species

In response to multiple public inquiries about mitigation measures for impacts on fisheries and fish habitat that will inevitably arise throughout the life cycle of this project, Xeneca has stated that the measures being considered include improving spawning grounds and fish hatcheries elsewhere, with no mention of improvements within the waterway itself, nor any mention of any provisions for migration. Fish hatcheries have not been successful in the Ottawa River to increase population of species such as Muskellunge and we don't believe this is a good strategy for mitigation of impacts to the Petawawa River. Safe upstream and downstream migration for American eel must be provided.

In addition to this project jeopardizing the survival of the American eel, threats to other species such as the Lake Sturgeon have yet to be formally addressed by Xeneca.

2. Instream flow conditions

The impacts of dams on instream flow conditions are well published. The timing of water releases does not mimic natural flow conditions in rivers and can have adverse impacts on fisheries, vegetation, recreation and shoreline erosion. This project has the potential to drastically alter instream flow conditions (up to an 80% reduction in discharge rate), resulting in a considerably lower discharge rate downstream of the dam during peak hours. Such a significant reduction in water levels can have severe implications for navigation, recreation, stream ecology and the capacity of downstream reaches to assimilate and dilute pollution.

Xeneca has yet to publish any details regarding operational scheduling for the dam and the estimated discharge rate for peak hours and off-peak hours. This information is essential to the assessment of overall impacts of the project, and must be addressed by Xeneca before the project impacts can be adequately assessed.

3. Navigability and Public Access

The Petawawa River provides significant benefit to the community and visitors in terms of its recreational potential. It is currently an unmanaged waterway with no dams altering its natural flow, and is a publicly accessible and navigable waterway used by thousands of individuals every year. The dam itself will impede overall navigability of the river and poses a significant barrier to recreational use of the waterway. Xeneca is proposing the use of a “modified peaking” approach for the project that will result in water levels downstream being substantially reduced for large portions of the day, potentially rendering large sections of the river unnavigable. While the reduction in flows downstream of the dam may allow *adequate* navigability, it will significantly affect the overall quality of the experience and threatens to diminish the inherent recreational potential of the river.

Xeneca has made no indication that navigability will be maintained along the waterway and provides no assurance that public access to the affected reach of the river will be provided for. Addressing these concerns is vital in assessing overall impacts of this project, as navigable waterways are public resources and access should not be restricted. Fencing off access to a significant area of the Petawawa River is not an acceptable solution to address access and safety.

4. Feasibility

The Ontario Power Authority’s Feed-in Tariff Program is designed to generate innovation in the green energy market within the province. The government of Ontario is currently shifting its investment in non-renewable energy production towards incorporating “greener” alternatives to the energy needs of the province. It is estimated that the proposed “Big Eddy” project will generate approximately 5.3 megawatts of energy, for which the Ontario Power Authority’s Feed-in Tariff program will pay a rate of 13 cents per kilowatt hour produced. While this makes the project financially viable to the proponent, the overall loss of tourism, recreation, and aquatic and riparian habitat that will result should the project be approved will likely substantially outweigh any income generated by the project. While we support the government’s decision to invest in green energy, projects such as these could not possibly scale to meet our current or future energy needs – for example, attempting to replace the 4,096 MW of energy generated at the Nanticoke coal power plant would require that over 750 dams of similar scale to the “Big Eddy” project be constructed. In this context, the numerous potential adverse impacts of the project cannot be justified given the relatively minor amount of energy being generated.

5. Public Consultation

Public consultation and involvement is a provincially-mandated requirement for the Class Environmental Assessment being carried out for this project. Efforts by Xeneca to keep the public informed of progress on the project have thus far been limited. Upon the initial announcement of this project proposal in 2009, Ottawa Riverkeeper requested to be included in the stakeholder database, and a representative of Xeneca confirmed that any project updates would be communicated to us. To date, we have not received any correspondence from Xeneca and as a result have not been kept adequately informed of opportunities for public input. Furthermore, responses to requests for information regarding these opportunities for input from Xeneca were generic and made no attempt to address the question of timelines and closing dates for public input. Xeneca has an obligation to community stakeholders to publish these opportunities for public input and to regularly update the public on the status of the project, which we feel is not being upheld. Xeneca could benefit from studying and implementing the public consultation principles that are outlined in section 6.2.1 of the Class Environmental Assessment for Waterpower Projects.

6. Project Definition

In this phase, proponents are expected to identify potential effects on the environment and implement aboriginal engagement. To the best of our knowledge, there has been very little meaningful engagement with the Algonquin First Nation. Perhaps this has been poorly communicated, so we respectfully ask where Xeneca is in this process.

The project description that has been made available to date does not adequately address the scope of the potential cumulative impacts from the proposed project. In keeping with the principles of the environmental assessment process, a comprehensive assessment that formally addresses *all* adverse impacts on fisheries should be carried out before the project precedes any further. The Petawawa River provides access to pristine freshwater habitat and flows through Algonquin Park. Constructing any dam on the Petawawa close to its convergence with the Ottawa River will essentially cut off an extensive and ecologically diverse area to all species inhabiting or passing through the Petawawa. Cumulative effects *must* be taken into consideration, as the fisheries in question stand to be affected not only by this project, but also by additional projects being proposed in the watershed, including Xeneca's "Half Mile Rapids" project located a mere 7 kilometers upstream.

Recommendations

1. Before any dams are approved on the Petawawa River, all local interests and stakeholders should come together to create a Petawawa River Watershed Management Plan. Such a plan was developed successfully for the Madawaska River and finalized and signed in 2010.
2. No dams should be approved on the Petawawa River if the proponent cannot provide:
 - a. A dam that guarantees safe upstream *and* downstream passage for the American eel and other migratory species;

- b. A plan to manage instream flow conditions to meet the needs of the species that live in and near the river as well as the needs of the local paddling and fishing community;
- c. Proof that the value of the electricity generated from the proposed facility is greater than the value of a healthy, intact river system with respect to cumulative socio-economic benefits from fishing, recreation, tourism and cultural heritage.

Concluding Remarks

We do not believe this is a worthwhile project as is currently described and we are concerned that Xeneca is not interested in meaningful consultation with interested stakeholders. The project does not support the diverse interests of the local community, and given the significant losses to biodiversity, cultural heritage, recreation and tourism, we believe that this project is simply not sensible.

We would like to thank you for the opportunity to submit these comments, and wish to be notified of any further project developments and opportunities for public input. We look forward to seeing more detailed assessments from fisheries experts.

Sincerely,



Meredith Brown, B.Eng., M.R.M.
Ottawa Riverkeeper

Cc: Hon. Linda Jeffrey, Minister of Natural Resources – Ontario;
Hon. John Wilkinson, Minister of Environment – Ontario;
Bob Lambe, Regional Director General – Central and Arctic Region, DFO;
Barry Putt, Regional Manager, Navigable Waters Protection Program – Ontario Region;
Mayor Bob Sweet, Town of Petawawa;
John Yakabuski, MPP Renfrew-Nipissing-Pembroke;
Cheryl Gallant, MP Renfrew-Nipissing-Pembroke;
Mark Holmes, VP Corporate Affairs, Xeneca Power Developments, Inc.