Backgrounder
Énergie NB Power

Update on studies exploring Mactaquac operations beyond 2030

6 May 2016

As many New Brunswickers are aware, the Mactaquac Generating Station is currently expected to reach the end of its service life by 2030. This is due to an ongoing alkali-aggregate reaction (AAR) within its structures that is causing the concrete to expand. To allow enough time for potential construction and regulatory approvals, NB Power must recommend a future path for the station by the end of 2016.

Last fall, NB Power launched a public conversation about the future of the station with an online survey, two draft reports on potential social and environmental impacts, and a series of open houses. Later this month, we'll host stakeholder and public dialogue sessions in Fredericton, Mactaquac and Woodstock before closing the public feedback period on May 31.

Why this update now?

For the last seven months, we have heard from thousands of New Brunswickers about their priorities with regard to cost, environment, renewable energy, the potential impacts on station-adjacent communities and potential economic activity related to construction.

Many of our conversations have been focused on the potential for three end-of-life options for the station, which include building a brand-new generating station across the river from the current site, removing all structures to allow the river to return to a natural flow or leaving the dam in place but without power generation.

In the meantime, NB Power has continued to explore whether the station can continue operating beyond 2030 with ongoing maintenance and investment. We want to ensure alternative approaches can be fully understood before making a final recommendation about the future of the station.

With the public engagement period drawing to a close and community sessions planned, NB Power wants to share what we've learned about this approach and how it will be evaluated, along with the other end-of-life options, in the coming months.

Throughout this decision process, NB Power has committed to sharing and considering new information uncovered during the engagement process. We are standing by this commitment by sharing what we know now.

So what have you learned?

For the last number of years, NB Power has been continuously testing and modelling the impacts of concrete expansion at Mactaquac to manage its impacts and gain a better understanding of the station's structural integrity and behavior.

In recent months, technology has allowed for more detailed modelling of actual and potential impacts of the concrete expansion at Mactaquac, revealing better structural integrity than was previously understood. These results are consistent with ongoing testing of concrete samples taken from the station.

This improved understanding has provided NB Power with greater confidence in the potential for alternative approaches to allow Mactaquac to generate electricity beyond 2030, perhaps even to its original 100 -year service life.

These alternative approaches have arisen from due diligence studies under investigation since 2014. They have been discussed in various public documents and presentations, including NB Power's recent discussion paper on the subject, *Considering the Future of Mactaquac*.

There are two approaches currently under review:

- Removing and replacing concrete in the most affected parts of the station, and replacing or repairing certain mechanical and electrical equipment.

- Stabilizing and replacing some concrete in the most affected parts of the station, replacing or repairing certain mechanical and electrical equipment, and periodically re-adjusting the position of the equipment.

Some of the mechanical and electrical equipment that would be repaired or replaced in these approaches would have been due for replacement in any event due to age and wear.

In the coming months, NB Power will study the technical characteristics and costs of these approaches while continuing to evaluate the three previously identified end-of-life options.

How will you ensure environmental, social and First Nations impacts are considered in this approach?

NB Power anticipates the key environmental, social and First Nation impacts of these approaches would be similar to current operations and have been largely identified through existing processes, including the draft Comparative Environmental Review and Social Impact Comparative Review reports, public and First Nations engagement.

Public feedback received throughout the engagement process will be considered in NB Power's assessment approaches to extend operations and the three end-of-life options. NB Power's deadline for all public feedback is May 31.

First Nations interests are being considered through a separate and ongoing engagement process.

We will also continue working with the Canadian Rivers Institute through its ongoing St. John River ecosystem study to understand the potential impacts on fish passage and river flows.

What does this mean to NB Power's decision regarding the preferred option?

NB Power remains committed to making a decision regarding Mactaquac before the end of 2016. As we've said all along, the "status quo" or "do nothing" approach is not an option for Mactaquac. In light of progress of studies provided in this update, NB Power will continue evaluating the three end-of-life options while exploring the potential to operate the station beyond 2030.