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Executive Summary

The purpose of the Mactaquac public engagement program was to gather broad, values-based input to inform NB Power’s decision making process on the future of the Mactaquac Generating Station. The formal program was carried out from September 22, 2015 to May 31, 2016 with the support of NATIONAL and Corporate Research Associates Inc. (CRA).

Recognizing that the Mactaquac decision will impact all New Brunswickers, multiple in-person and online opportunities for participation were made available to suit varying levels of knowledge and interest. Participation opportunities included: open houses, community dialogue sessions, stakeholder workshops, a custom online survey, formal submissions, and public opinion research conducted by telephone. While these were the principal engagement tactics carried out during the program, NB Power’s engagement efforts pre-date these, therefore additional activities are also reflected in this report for comprehensiveness (e.g. presentations, meetings, emails and phone calls).

To begin, extensive invitation efforts were undertaken to ensure New Brunswickers were aware of the big decision regarding the Mactaquac Generating Station and the opportunities available to learn more about it and have their say. NB Power’s existing communications channels, earned and social media, community partners and advertising were all leveraged to generate awareness and participation.

Below is a summary of awareness and participation:

- More than 300,000 New Brunswickers aware of the decision to be made
  - based on CRA public opinion polling
- More than 50,000 New Brunswickers informed
  - based on website traffic, public interactions and distribution of materials
- More than 7,000 New Brunswickers directly engaged online
  - based on Mactaquaction.ca survey responses
- More than 3,000 New Brunswickers directly engaged in person
  - New Brunswickers who attended open houses, community dialogue sessions, stakeholder workshops, and sessions by request

Key Findings

A remarkable level of consistency emerged in what New Brunswickers identified as most important to them. Overall, New Brunswickers indicate that their highest priority relating to the Mactaquac decision is the environment. This is closely followed by cost to ratepayers.
On the topics of the environment, electricity sources and economic impact, the consistency in shared value across geographic regions of the province is striking. There is really no variation to speak of. To summarize, New Brunswickers by and large care about the same things, in the same measure. New Brunswickers (including those who reside in the affected area) largely agree that the final decision on Mactaquac should be based on the interests of the province as a whole, while also sensitive to the most directly impacted communities.

On the environment, New Brunswickers told us that improving fish passage at Mactaquac is a high priority. It was also indicated that there is a willingness to accept some negative short-term environmental impacts if changes result in New Brunswick reaching its long-term environmental goals. Overall, feedback related to the retention or removal of the dam was mixed – a majority of residents who participated indicated the headpond should not be disturbed, however, numerous stakeholders expressed their position in workshops and formal submissions that the dam should be removed.

Across all input data, we observed that New Brunswickers are very supportive of investments in renewable electricity. In terms of electricity sources, there is reluctance to rely on out-of-province options for electricity generation.

It is notable that residents in the affected community (headpond and Saint John River Valley) placed a slightly lower level of priority on the cost to ratepayers in lieu of higher priority being placed on community impacts. Not a surprising result given the direct impacts that might be expected on those residents as the Mactaquac Project moves forward.

Irrespective of the decision made, it is important to New Brunswickers that local suppliers be given priority for the project. There is majority support for a mega project to boost the economy. That said, there is significant concern about potential rate increases – whether from investment in renewables, a mega project, or otherwise.

We also heard throughout the engagement process that New Brunswickers want the Mactaquac decision to be transparent, evidence-based, and for the public’s input to be truly taken into account. The process by which the decision will be made and implemented is very important.

While the vast majority of feedback came from New Brunswickers, there was also a small amount of interest in the Mactaquac Generating Station project and the public engagement campaign from outside the province. Mainly from other provinces in Atlantic Canada and the Northeastern United States.
Emergent Themes Across all Inputs

Mactaquaction.ca

<table>
<thead>
<tr>
<th>Theme</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>25.2%</td>
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<tr>
<td>Cost to Ratepayers</td>
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</tr>
<tr>
<td>Electricity Sources</td>
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Mactaquaction.ca Comments

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</thead>
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</tr>
<tr>
<td>Activity</td>
<td>13%</td>
</tr>
<tr>
<td>Economic</td>
<td>9%</td>
</tr>
<tr>
<td>Community</td>
<td>6%</td>
</tr>
<tr>
<td>Impacts</td>
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</tr>
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<td>Other</td>
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Community Dialogue Session Harvest

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<tbody>
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<tr>
<td>Activity</td>
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<tr>
<td>Economic</td>
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Formal Submissions

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</thead>
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</tr>
<tr>
<td>Cost</td>
<td>17%</td>
</tr>
<tr>
<td>Activity</td>
<td>14%</td>
</tr>
<tr>
<td>Economic</td>
<td>12%</td>
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<tr>
<td>Community</td>
<td>9%</td>
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<tr>
<td>Impacts</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
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</table>

Open House: Exit Survey Comments

<table>
<thead>
<tr>
<th>Theme</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
<td>23%</td>
</tr>
<tr>
<td>Cost</td>
<td>17%</td>
</tr>
<tr>
<td>Activity</td>
<td>14%</td>
</tr>
<tr>
<td>Economic</td>
<td>12%</td>
</tr>
<tr>
<td>Community</td>
<td>10%</td>
</tr>
<tr>
<td>Impacts</td>
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</tr>
<tr>
<td>Other</td>
<td>20%</td>
</tr>
</tbody>
</table>

Legend:
- Environment
- Cost
- Community & Local Impacts
- Keep Dam/Headpond
- Green Energy & Sustainability
- Reliability & Generating Capacity
- Process, Transparency & Openness
- Economic Opportunities
- Fish & Fish Passage
- Other
Methodology

Public engagement on the Mactaquac Project was carried out over a period of eight months from September 21, 2015 to May 31, 2016.

The design of the engagement process was a collaborative effort between the Mactaquac Project team at NB Power and NATIONAL, with survey design and data analysis services provided by Corporate Research Associates Inc. (CRA).

Program goal
To gather broad, values-based input from New Brunswickers that will inform and influence NB Power’s 2016 decision making process on the future of the Mactaquac Generating Station.

Objectives
The engagement strategy was developed in support of the following objectives:

- Implement an engagement process New Brunswickers find accessible, meaningful, honest and credible.

- Achieve broad-based awareness of the important decision to be made regarding the Mactaquac Generating Station in 2016, the process NB Power will follow to collect feedback, and how public input will be used to influence the eventual decision.

- Provide sufficient and appropriate contextual information, in an easy to understand format, about the decision to be made and what is known about the implications of the options under consideration.

- Provide participation opportunities for both the general public as well as highly engaged and knowledgeable stakeholders.

- Host values-based dialogue on the future of the station that allows all New Brunswickers to contribute based on their own perspective, experience and what is most important to them.

Parameters of the Engagement Opportunity
To provide the most effective opportunity for meaningful input, it was important that the engagement design and questions posed of New Brunswickers matched the parameters of what the public could influence in terms of NB Power’s final Mactaquac decision.
NB Power agreed that through this process New Brunswickers would have the opportunity to influence the following:

- Common values to inform option selection
- Process and techniques for future engagement with New Brunswickers
- New information uncovered during engagement process

NB Power indicated that the following were outside the scope of this public engagement process:

- Continued provision of safe, reliable electricity at low and stable rates
- Compliance with environmental regulations
- A decision must be made by the end of 2016
- Respect of First Nations’ rights and interests

**Engagement Approach**

It was determined that a values-based dialogue would yield the most useful public input NB Power could apply to their decision making process. In particular, NB Power sought a deeper understanding of New Brunswickers’ priorities in five areas:

1. Community impacts
2. Cost to ratepayers
3. Economic activity
4. Electricity sources
5. Environment

In addition to understanding the views of New Brunswickers-at-large, it was important to understand what was most important to residents of affected communities – both nearest to the dam and headpond, and along the Saint John River.

Both qualitative and quantitative methods were employed to yield rich data and meaningful insight into residents’ values in these areas and how they would prioritize them, given some of the inherent trade-offs among them.

The results presented in this report are based on the input provided by thousands of New Brunswickers who chose to participate in the process and did so at the level of their interest. We have considered this data in its totality for emergent themes and also highlight where applicable regional or demographic variations in values. Additional public opinion research was carried out in the CRA Spring 2016 Atlantic Quarterly to offer a validation point against a statistically reliable and representative sample of New Brunswickers.

It is important to note that given the unique rights and interests of First Nations on this decision, First Nations consultation was carried out by NB Power in a parallel process and will be treated as distinct and a separate input to the organization’s decision making.
The hybrid model of online and in-person engagement was informed by public opinion research conducted by CRA on behalf of NB Power in 2015. Results of that study indicated the following preferences for mode of participation in dialogue on the Mactaquac decision:

- Online survey: 42%
- Facilitated meeting with NB Power representatives: 22%
- Focus group with an independent moderator: 20%
- Private one-on-one meeting over the phone: 13%

Invite
To achieve province-wide awareness a significant effort was undertaken to develop and deploy a compelling engagement narrative, call-to-action, and visual identity that could be applied consistently to all program communications – from bill stuffers sent to all NB Power customers to social media content to posters distributed in affected areas. The tactical approach to inviting the public to participate had to be extensive to achieve the desired level of province-wide participation. It leveraged NB Power’s direct channels and audiences, earned and paid media opportunities, and stakeholder networks.
Inform

Overall, the inputs to the Mactaquac decision are quite technical, including complex environmental, engineering, cost, and social impact analyses. In the interest of gathering broad-based and informed input from as many New Brunswickers as possible, a deliberate effort to communicate the key considerations around the Mactaquac decision in a more accessible way was essential. The following content was created to respond to this need:

- Mactaquaction.ca video series
- Comparative Environmental Review & Social Impact Open Houses
- Mactaquac.ca project background website
- “Considering the Future of Mactaquac” discussion paper
- Presentations by request

The Mactaquac.ca website also launched a year before the formal public engagement period began. Mactaquac.ca was an informational project site that included a 7-minute video with background information and visual renderings of the potential project options.

Mactaquac.ca and the content it held helped explain the Mactaquac situation, the options being considered, and it helped set up the process through which NB Power would engage the public and arrive at a decision. It also featured an upcoming events section to keep interested stakeholders up-to-date on engagement opportunities.

Public engagement before the public input period was also done through the Comparative Environmental Review process, which was designed in a manner comparable to New Brunswick’s Environmental Impact Assessment process. This process included publishing terms of reference and draft guidelines, and soliciting public input on these guidelines before writing the report. A CER advisory committee was also recruited to oversee this process. Through the Social Impact Comparative Review process, NB Power interviewed stakeholders in the affected area directly through the Lower Saint John Hydro Community Liaison Committee to develop the list and scope of potential impacts.

Engage & Report

Recognizing that the decision will impact all New Brunswickers, it was important to make it easy to participate and therefore a combination of both in-person and online tactics was most appropriate. Within those streams, multiple participation opportunities were made available to suit varying levels of knowledge and interest in the Mactaquac decision.
The engagement process yielded the following quantitative data sources analysed for the purpose of this report:

<table>
<thead>
<tr>
<th>INPUT</th>
<th>ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mactaquaction.ca survey</td>
<td>Data tables and reporting provided by CRA, analysis by NATIONAL</td>
</tr>
<tr>
<td>Event survey–CER &amp; Social Impact Open Houses</td>
<td>Documentation by NB Power, analysis by NATIONAL</td>
</tr>
<tr>
<td>Event survey – Community Dialogue Sessions</td>
<td>Data tables by CRA, analysis by NATIONAL</td>
</tr>
<tr>
<td>Event survey – Stakeholder Workshops</td>
<td>Data tables by CRA, analysis by NATIONAL</td>
</tr>
<tr>
<td>Public opinion research</td>
<td>Carried out by CRA, data tables, analysis by NATIONAL</td>
</tr>
</tbody>
</table>

Quantitative data collected online was provided to CRA for analysis and data tabulation. CRA’s Data Services Department handled all data processing, tabulation and analysis. The data services team carefully scrutinized the data file for completeness and accuracy before initiating analyses.

Qualitative data sources considered in this report include:

<table>
<thead>
<tr>
<th>INPUT</th>
<th>ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CER &amp; Social Impact Open House comments</td>
<td>Coding and analysis by NATIONAL</td>
</tr>
<tr>
<td>Community Dialogue Session harvest</td>
<td>Coding and analysis by NATIONAL</td>
</tr>
<tr>
<td>Stakeholder Workshops harvest</td>
<td>Coding and analysis by NATIONAL</td>
</tr>
<tr>
<td>Mactaquaction.ca comments</td>
<td>Coding by CRA, analysis by NATIONAL</td>
</tr>
<tr>
<td>Formal submissions</td>
<td>Coding and analysis by NATIONAL</td>
</tr>
</tbody>
</table>

All qualitative input online and in-person was coded into conceptually-meaningful categories and quantified. Conceptually-meaningful categories included, but were not limited to, the five key value topics in the online survey at Mactaquaction.ca (the environment, cost to New Brunswickers, electricity sources, economic activity, and community impacts).

Some of the most common categories of emergent themes were:

- Green energy & sustainability
- Environment
- Community and Local Impacts
- Cost
- Keep the Dam/Headpond
- Reliability & Generating Capacity
- Process, Transparency & Openness
- Remove the Dam
- First Nations
- Economic Opportunities
- Fish & Fish Passage
- Infrastructure
- Transportation
Communication & Invitation Efforts

Understanding the significance of the decision to be made, an extensive communication and invitation effort was undertaken to raise awareness of the project and decision and solicit values-based feedback from New Brunswickers on the decision.

NB Power and NATIONAL sought to leverage all available channels to build awareness and understanding and invite participation. Custom content resources were created to support this effort.

Owned Channels & Networks Leveraged

- Community Liaison Committee
- NB Power subject matter experts
- Comparative Environmental Review Advisory Committee
- Mactaquac.ca
- Mactaquaction.ca
- NBPower.com
- Twitter: @NBPower
- Facebook: Efficiency NB/Smart Habits
- NB Power customer newsletter
- NB Power bill stuffer
- President & CEO communications
- Stakeholder email list
- Department of Energy and Resource Development homepage (formerly Energy & Mines)
- Posters, brochures, information cards

Social media was a helpful means of building awareness and engagement, as illustrated by the Twitter snapshot that follows.
Twitter Snapshot:

- 297 tweets detected from 209 different users
- Total reach: 817,273
- Twitter conversations spiked during the campaign’s launch in late September and late October (which correlates with the Open Houses), and again in March and May during the community dialogue sessions
- The most popular hashtag was #Mactaquac
- The tone of Twitter conversation was generally neutral, focused on information sharing and engaging others
Facebook Snapshot:
Due to its strict privacy policy, it’s difficult to accurately track results on Facebook. However, like Twitter, Facebook had two key conversation threads:

- News sources and individuals sharing articles or the Mactaquaction website in an effort to share information within their networks
- Users asking others in their network to take the survey, and provide feedback

Facebook traffic was the most likely referral source to complete the web survey, at 37%.
Earned Media
Earned media refers to audience impressions gained through news media and blogs.

Traditional media coverage yielded significant audience reach, providing information about the Mactaquac decision and public engagement process during the program period. Our analysis indicates more than 94 related print, broadcast and online media stories were published province-wide during the engagement period.
Paid Media

Paid media was the most efficient and effective means of achieving province-wide audience reach with the engagement narrative and invitation. Online advertising drove traffic to Mactaquaction.ca and was highly successful in generating participation. Print advertising focused on publicizing in-person engagement events.

The total impressions for the paid media campaign exceeded 7 million.

**Online:**

- Google search and display
- Twitter
- Facebook
- YouTube

Facebook and Twitter were highly successful in driving visits and survey responses on Mactaquaction.ca. Facebook and YouTube were very effective in sharing video content with our audience.

<table>
<thead>
<tr>
<th>Social Media Platform</th>
<th>Impressions</th>
<th>Clicks</th>
<th>Video Views</th>
<th>Survey Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Display Network</td>
<td>2,626,862</td>
<td>5,025</td>
<td>-</td>
<td>269</td>
</tr>
<tr>
<td>YouTube</td>
<td>402,551</td>
<td>1,224</td>
<td>67,202</td>
<td>6</td>
</tr>
<tr>
<td>Facebook Display</td>
<td>963,726</td>
<td>15,002</td>
<td>-</td>
<td>1,565</td>
</tr>
<tr>
<td>Facebook Video</td>
<td>1,319,560</td>
<td>208</td>
<td>293,220</td>
<td>48</td>
</tr>
<tr>
<td>Twitter</td>
<td>2,283,286</td>
<td>15,210</td>
<td>-</td>
<td>290</td>
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<tr>
<td><strong>Totals</strong></td>
<td><strong>7,595,985</strong></td>
<td><strong>36,669</strong></td>
<td><strong>360,422</strong></td>
<td><strong>2,178</strong></td>
</tr>
</tbody>
</table>

**Print:**

- Fredericton Daily Gleaner
- Woodstock Bugle
- L’Acadie Nouvelle
- Telegraph-Journal
Below is a summary table of paid print advertisements on the Mactaquaction public engagement campaign with circulation numbers.

<table>
<thead>
<tr>
<th>Insertion Date</th>
<th>Day</th>
<th>Circulation</th>
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</thead>
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<td>Tuesday</td>
<td>15,929</td>
</tr>
<tr>
<td>14-May</td>
<td>Saturday</td>
<td>16,153</td>
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<td>14-May</td>
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<td>16,652</td>
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<tr>
<td>10-Oct</td>
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<td>10-Oct</td>
<td>Saturday</td>
<td>27,177</td>
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<td>147,584</td>
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<td></td>
<td></td>
<td>96,588</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50,996</td>
</tr>
</tbody>
</table>
L'écrivain, journaliste et nouvelliste québécois, Jean-François Lépine, a été invité à l'École normale de l'Université de Montréal, le 1er octobre dernier. Il a donné une conférence sur le thème de l'écriture et de sa véritable nature.

Environ 130 personnes ont participé à cet événement, qui a été organisé par l'Académie nouvelle et la Salle des fêtes de la Presse. Comme correspondant à l'étranger pour Radio-Canada, M. Lépine a fait plusieurs reportages internationaux, notamment lors des dernières crises en Irak, en Afghanistan et en Libye.

Il a aussi soutenu l'Union pour le renforcement de la diversité culturelle, mais il a également reconnu que la diversité culturelle est un véritable défi pour l'humanité.

Enfin, il a conclu en disant que l'écriture est un art difficile et passionnant, et qu'il est important de continuer à l'embrasser et à l'apprécier.

Jean-François Lépine, l'écriture, et la diversité culturelle.

---

**Décision importante à prendre**

Il y a près de 50 ans que la centrale de Mactaquac fournit de l'électricité au Nouveau-Brunswick. C'est maintenant le temps de décider de son avenir.

*C'est le temps d'agir, mactaquaction.ca*
Invitation & Awareness

Summary of invitation and awareness efforts and their reach.

Direct Mail
- 303,000

Promotional Material
- 1,000 Brochures
- 1,500 Information Cards
- 250 Posters

Paid Media
- 7.5M+ IMPRESSIONS

Video
- VIEWS
- 375,000+

Social Media

Earned Media
**Engagement Results**

The following engagement opportunities were provided to New Brunswickers:

- Comparative Environmental Review & Social Impact Open Houses
- Community Dialogue Sessions & Stakeholder Workshops
- CRA Public Opinion Research
- Mactaquaction.ca Survey
- Formal Submissions

*Summary of participation levels.*
A key means of gathering public feedback was an online survey hosted at Mactaquaction.ca and designed in consultation with CRA.

Educational resources on the website consisted of a series of six videos providing important context around the Mactaquac decision and its potential implications.

The website experience was designed to lead a visitor through information and questions on five topics: Community Impacts, Cost to Ratepayers, Economic Activity, Electricity Sources and Environment. The questions consisted of a series of normative statements for each of which, participants were asked to indicate their level of agreement from strongly disagree to agree.

The website included email-based authentication and the first stage of the survey captured geographic location (postal code), gender, age and language. At the end of the survey, the website had a strong call-to-action encouraging participants to share the invitation to participate via social media.

**Participation:** 27,500+ unique website visitors
7,972 survey responses, 5,423 of which were completed surveys

**Analytics:**

Mactaquaction.ca was live from September 21, 2015 – May 31, 2016, with the survey closing at midnight on May 31, 2016.

In the eight-month period the website saw 32,763 sessions from 27,598 users. These users, on average, spent 2:57 minutes on the site.

The vast majority of users who visited the site did so only once. Traffic to the site was nearly evenly split between desktop computers and tablet/mobile devices.

About 65% of visitors to the site indicated they were aged 45 years or older. The 18–24 age group made up the smallest portion of traffic to the website, at 7% of users. Website traffic was approximately 86% English and 14% French.
Almost all users arrived on the site via some form of paid media. Facebook advertising accounted for 42%, Google for 15.5%, and Direct (usually attributed to traditional media) for 17.5%. Referrals to the site came mainly from Mactaquac.ca, Facebook, and NBPower.com, and these amounted to 17% of acquisitions. Organic search traffic accounted for about 2-3% of all acquisitions.
There was a clear spike in visits (1,190) on September 22-23, 2015, immediately after the launch of the engagement program and the website. Following this spike at launch, the site maintained anywhere between 50-400 visits per day, with an average of 100-130 per day for the life of the website.

Profile of Survey Respondents

Age distribution of Mactaquaction.ca survey respondents.
Geographic distribution of survey respondents.
Survey Participation by Region.

- **Campbellton**: 12.2%
- **Edmundston**: 4.9%
- **Fredericton**: 40.0%
- **Moncton**: 26.5%
- **Saint John**: 16.5%

[Map showing survey participation by region]
What New Brunswickers Said:

**Environment & Cost to Ratepayers are Most Important**
When residents were asked to assign values out of a maximum total of 100 to five specific topics: the environment, cost to New Brunswickers, electricity sources, economic activity and community impacts, New Brunswickers placed greatest importance on the environment, closely followed by cost. Electricity sources, Economic Activity and Community Impacts were of secondary importance province-wide.
Shared Values Province-Wide
Quite a remarkable level of agreement emerged in province-wide results as seen on the values assigned to the five priorities, indicating that irrespective of geographic location, New Brunswickers by and large care about the same things in the same measure.
The one variation in this province-wide consistency in values is on the topic of Community Impacts in the affected area. In this case, we see greater value assigned to Community Impacts and a commensurate lower level of value placed on Cost to New Brunswickers. Values attributed to all three other topics however remain the same as the rest of the province.
Key Findings on the Environment
Residents largely agree (68%) that decisions should be made with the Saint John River environment as the top priority. A clear majority (67%) also agree that fish and fish passage are top priorities.

There is a willingness to live with some negative short-term environmental impacts provided long-term environmental goals are achieved.

There are mixed opinions that while the environment is important, cost and economic factors should be considered first.

A slight majority (58%) of survey respondents agree that the existing headpond ecosystem should not be disturbed.

The Environment
Rating on 5-pt Scale: 5=Agree, 1=Disagree

- Decisions should be made with the Saint John River environment as the top priority, including migratory fish, plants, birds, insects and other wildlife
  - 40% Agree, 28% Agree, 21% Disagree, 7% Disagree
  - Mean: 3.9

- I can live with some negative short-term environmental impacts if they help to achieve long-term environmental goals
  - 39% Agree, 32% Agree, 18% Disagree, 5% Disagree
  - Mean: 4.0

- Ensuring migratory fish including salmon, gaspereau and American eels have passage through the lower St. John River system should be a top priority
  - 38% Agree, 29% Agree, 21% Disagree, 6% Disagree
  - Mean: 3.9

- The existing ecosystem of the Mactaquac headpond should not be disturbed
  - 34% Agree, 24% Agree, 22% Disagree, 8% Disagree
  - Mean: 3.7

- The environment is important, but our decision should consider the cost of the project and the economy first
  - 20% Agree, 20% Agree, 26% Disagree, 18% Disagree
  - Mean: 3.1

Q.2a-e: We know that whatever we decide about Mactaquac will affect the St. John River, the Mactaquac headpond, and the surrounding environment. So we’re studying all aspects of the decision to understand what it could mean to everything from fish species to overall river health.

There are dozens of studies underway already by experts and scientists. Those studies will support the decision we make. But we also need to understand how important the environment is to you.

With the headpond and river environment in mind, tell us how much you agree or disagree with the statements below.
(n=5,423) Note: Responses of ‘Don’t know/Not applicable’ have been excluded from the mean calculation.
Key Findings on Cost to Ratepayers

Most New Brunswickers (75%) would support a large investment now, if it benefited future generations of New Brunswickers.

Seven-in-ten (69%) agree that rate stability and predictability should be top priorities, however, the same proportion (68%) agree that while a short-term economic boost is important, NB Power should consider the economic impact of rate increases on New Brunswick businesses.

Two-thirds (65%) agree NB Power should consider the immediate costs to New Brunswickers and the province’s current economic state when making its decision.

Residents in the affected area were less likely than the rest of the province to agree that rates should be as low as possible or that stable and predictable rates should be a top priority.

Cost to New Brunswickers
Rating on 5-pt Scale: 5=Agree, 1=Disagree

<table>
<thead>
<tr>
<th>Statement</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want my rates to be as low as possible</td>
<td>50%</td>
<td>19%</td>
<td>22%</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>I support a large investment now if it means benefits for future generations of New Brunswickers</td>
<td>46%</td>
<td>29%</td>
<td>17%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Stable and predictable rates should be a top priority</td>
<td>39%</td>
<td>30%</td>
<td>22%</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>NB Power should consider the environment and long-term plans even if there is a larger impact on rates now</td>
<td>37%</td>
<td>31%</td>
<td>22%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>NB Power should consider the immediate costs to New Brunswickers and our province’s current economic state when making their decision</td>
<td>36%</td>
<td>29%</td>
<td>23%</td>
<td>8%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Q.5a-e: Any solution to the Mactaquac question is going to cost a lot of money. Since NB Power is a public utility, electricity rates will cover the cost.

Any decision we make about how we provide electricity to the province will change your monthly power bill. This means everyone in New Brunswick will be affected by this decision.

Keeping the cost of this project and its potential impact on power rates in mind, tell us how much you agree or disagree with the statements below. (n=5,423) Note: Responses of ‘Don’t know/Not applicable’ have been excluded from the mean calculation.
Key Findings on Electricity Sources

New Brunswickers are reluctant to rely on out-of-province options for electricity generation, but supportive of investments in renewable electricity within the province as long as it does not result in large rate increases.

Residents generally disagree that the province should consider buying more power from outside of the province instead of building new generating stations in New Brunswick.

Residents of the affected area are most likely to agree (73%) renewable energy should be a priority.

Q.1a-d: Today, Mactaquac Generating Station provides about 12% of New Brunswick’s electricity, and is part of a network of hydro generating stations across our province.

Mactaquac provides renewable energy, which is an important part of our province's energy mix. Without it, we’d have to look for other ways to provide green electricity. For example, we could invest in different renewable options, like wind or solar, or we could purchase energy from outside New Brunswick.

Thinking about how we generate our electricity now and in the future, tell us how much you agree or disagree with the statements below.

(n=5,423) Note: Responses of ‘Don’t know/Not applicable’ have been excluded from the mean calculation.
Key Findings on Community Impacts

New Brunswickers largely agree (76%) the decision should be based on the interests of the province as a whole. Those within the affected Area also agree, but to a lesser extent (67%).

Over half (53%) agree that maintaining parks, marinas and recreational activity on and around the headpond is important, while a similar proportion agree any decision must respect the cultural history and traditional use of the River (48%).

Less than half (46%) of residents agree the needs and interests of local private property owners should be given priority, while even fewer (37%) agree that the needs or interests of local businesses should always be given priority.

Over half (54%) agree that reducing the risk of ice jam flooding below Mactaquac is important to them.
Key Findings on Economic Activity
Residents agree (68%) there’s a need for a mega project to stimulate economic activity, and a substantial majority (88%) agree that local suppliers should be given priority.

However, three-quarters (74%) agree that while short-term economic gain is important, the decision must consider long-term economic impacts on electricity rates for businesses.

Residents are somewhat open to the idea of New Brunswick taking on debt with only (28%) agreeing that NB Power and the Province should not take on any new debt.
Open Ended Response Themes
At the end of the survey, respondents were asked if they had anything else to add or share. Those comments have been themed and quantified for the purpose of our analysis.

1,714 respondents offered additional comments, with the most common mention being that the Mactaquac Generating Station and dam is needed and should be fixed/replaced. Further comments highlighted the need to have renewable energy sources and to consider economic factors in any decision. Approximately 15% of comments related to environmental impacts.

A range of other comments were made less frequently. These include the desire to keep energy costs down, for New Brunswick to be self-reliant in its power generation, the need to consider community impacts, and the opinion that the dam should be removed and the river restored.
Open Houses

In October 2015 a series of open houses were held in the affected area to provide an opportunity for residents to learn more about the Mactaquac Project, the options NB Power under consideration, and the emerging findings of the extensive studies underway to inform the decision.

NB Power partnered with scientists at the Canadian Rivers Institute (CRI) at the University of New Brunswick to study the options in relation to the health of the Saint John River and the headpond; Stantec on the comparative environmental review; and Dillon Consulting on the social impact analysis.

Subject matter experts attended to present relevant information, address questions and capture feedback. A written survey was distributed, comments captured on an idea wall, and people were also encouraged to provide feedback online at Mactaquaction.ca.

Participation:  Six events (Fredericton, Mactaquac, Nackawic, NB Power employees, St. Thomas University, Woodstock)

Over 960 participants

Satisfaction:  92% of event survey respondents were somewhat to very satisfied with the information presented.

97% of event survey respondents indicated they were somewhat to very comfortable asking questions and providing suggestions.

What was said:

Participants of the Open Houses who shared their views indicated that their priorities were to have the project done properly and with a long-term perspective that considers both cost and environmental impacts.

The events generated many questions and a clear desire for more information, particularly the pros and cons for all of the options. Questions related to: cost, timeline, and projected outcomes/scenarios for property owners.

There was a strong interest expressed in residents having the opportunity to provide their opinion on the project and for continued dialogue/input opportunities. Also calls for transparency in the decision making process.
Emergent themes in greater detail:

**Get it right**
- Learn from mistakes made in the past and make the future better for next generations
- Public engagement is the right thing to do and can help get to a better decision, if it’s done right
- NB Power made the decision to build it, so there’s a duty to keep or replace it (for renewable power generation, communities, properties, associated industries and environmental impacts)

**Apply a long-term perspective**
- Focus on long-term sustainability/predictability/security of costs related to construction, renewable power generation and rates
- Focus on the environment and ecosystem, affected communities, properties and industries
- Saving future generations from similar dilemmas and costly do-overs
- Keep energy NB-owned and operated
- It’s possible to have economic benefits now with long-term sustainability
- Diversified, clean, long-term energy, end fossil fuel dependence, and hydro is more affordable than wind or solar
- Duty to rebuild the dam properly and maintain its generating capacity

**Provide more information**
- General requests for clarity/transparency in decision making process
- Keep decisions rooted in science/facts/finances
- More open houses, continued information sharing as it becomes available
- Positive comments about process and requests for continued First Nations engagement
- Stay NB-owned
- Include more benefits of Mactaquac – black start capability, emergency power, ice/flood control
- Return on investment for each option
- Timelines and date for decision(s)
- Expert/third party opinions
- Specific pros and cons of all options
Environmental impact and the costs of the project

- Demand for more green, renewable energy
- High support for continued power generation
- Make and save money with Mactaquac for decades to come
- Considering long-term effects on environment, ecosystem, fish and habitat
- Costs of everything will only increase with time
- Employment: short/medium-term for construction, long-term for operation
- Business cases, economic analysis for options (even those not included in options/engagement process)

Emergent Themes of Open House Comments
**Stakeholder Engagement & Community Dialogue Sessions**

These sessions were held in May 2016 to provide those with vested interest in the Mactaquac decision – as residents in the affected area or as stakeholders – the opportunity to engage in a deeper dialogue, to gain a better understanding of the perspectives of their fellow New Brunswickers on the subject, and to provide their input to the decision making process.

Participants were led through small group dialogue in a World Café format on two questions – 1) What’s most important to you as NB Power considers this decision? And 2) Imagine it’s 2030: What do you hope we will have achieved? (with the decision made in 2016)?

A written survey was distributed and people were also encouraged to provide feedback online at Mactaquaction.ca before the public input period concluded May 31, 2016.

Participants at the fish and fish passage workshop were led through a small group dialogue in a World Café format on three questions:

- When you think of the Mactaquac decision and its potential impact on fish, what’s most important to you and why?

- When thinking about fish passage at Mactaquac, which species are most important to consider and why?

- Imagine it’s 2040, when thinking about fish and river health, what do you hope we will have achieved with our Mactaquac decision in 2016?

**Participation:** Three community dialogue sessions

- Fredericton, Mactaquac, and Woodstock
- Over 400 participants

Two stakeholder sessions

- Provincial stakeholders
- Fish & fish passage stakeholders
- Over 100 participants, including the following organizations below:
Fish & fish passage workshop

- Association of Professional Engineers and Geoscientists of New Brunswick
- Atlantic Salmon Federation
- Breviro Caviar Inc.
- Brunswick Aquaculture Ltd.
- Conservation Council of New Brunswick
- Fisheries and Oceans Canada
- Fundy North Fishermen’s Association
- Houlton Band of Maliseet Indians
- Kingsclear First Nation
- Madawaska First Nation
- Maliseet Nation Conservation Council
- Management and Solutions in Environmental Science
- Meduxnekeag River Association Inc.
- Mount Allison University
- Muskies Canada
- New Brunswick Department of Energy and Resource Development
- New Brunswick Salmon Council
- Oromocto First Nation
- St. John River Society
- St. Mary’s First Nation
- The Nature Conservancy of Maine
- Tobique First Nation
- Tobique Salmon Protective Association

Satisfaction: 91% of attendees agreed they had ample opportunity to share what was most important to them.

Stakeholder workshop

- Association of Professional Engineers and Geoscientists of New Brunswick
- Atlantic Salmon Federation
- Bird Construction
- Breviro Caviar Inc.
- City of Fredericton
- Conservation Council of New Brunswick
- Construction Association of New Brunswick
- Dunbar Construction Ltd.
- Electrical Contractors Association of New Brunswick
- Energy Edmundston
- Engineers & Geoscientists New Brunswick
- Falls Brook Centre
- Fredericton Northwest Construction Association
- Friends of Mactaquac Lake
- Fundy North Fishermen’s Association
- International Brotherhood of Electrical Workers
- Joint Economic Development Initiative New Brunswick
- Keswick Ridge Local Service District
- Kingsclear Local Service District
- Lindsay Construction
- Mi’gmawe’l Tplu’taqnn Incorporated
- Municipality of Canterbury
- New Brunswick Business Council
- New Brunswick Construction Safety Association
- New Brunswick Lung Association
- New Brunswick Salmon Council
- Quality Concrete
- Renewables New Brunswick
- Riverside Resort
- Saint John Energy
- Sivret Arthur & Fils Ltée
- SNC-Lavalin
- St. John Basin Salmon Recovery Inc.
- St. John River Society
- The Gaia Project
- Union of Municipalities New Brunswick
- Woodstock Sustainable Energy Group
- World Wildlife Federation
What New Brunswickers said:

There was significant alignment in key themes that emerged across the Community Dialogue and Stakeholder Sessions. Priorities that emerged consistently across sessions were:

- A renewable energy future

- Care for the health of the river and the environmental impact of whatever decision is made

- An affordable, financially responsible decision over the long-term

- Making fish and improvement of fish passage priorities, no matter what option is selected.

- A robust cost/benefit analysis applied to all options and communicated.

- A transparent, evidence based process with proper consultation and without political interference.

- Keep the headpond and the dam emerged as an important priority in the community dialogue sessions, however among stakeholders there was emergence of a different theme around removal of the dam for reasons related to fish and the broader environment.
Community Dialogue Sessions: Emergent Themes

- Green Energy & Sustainability: 3%
- Environment: 8%
- Community & Local Impacts: 10%
- Keep the Dam/Headpond: 13%
- Cost: 12%
- Reliability & Generating Capacity: 16%
- Economic Opportunities: 13%
- Process, Transparency & Openness: 10%
- First Nations, Infrastructure/Transportation, Other: 7%
- Fish & Fish Passage: 8%
- Remove Dam/Restore River: <1%
**Stakeholder Engagement Session: Emergent Themes**

- Green Energy & Sustainability: 19%
- Cost: 16%
- Environment: 13%
- Process, Transparency & Openness: 10%
- Community & Local Impacts: 8%
- First Nations, Infrastructure/Transportation, Other: 8%
- Fish & Fish Passage: 8%
- Reliability & Generating Capacity: 7%
- Economic Opportunities: 6%
- Keep the Dam/Headpond: 5%
- Remove Dam/Restore River: 2%

**Fish Passage Workshop: Emergent Themes**

- Fish & Fish Passage: 34%
- Environment: 29%
- Process, Transparency & Openness: 12%
- Remove Dam/Restore River: 9%
- Community & Local Impacts: 8%
- First Nations, Infrastructure/Transportation, Other: 3%
- Economic Opportunities: 3%
- Cost: 3%
- Keep the Dam/Headpond: 1%
When asked about the future of Mactaquac, New Brunswickers in the affected area care most about issues surrounding the environment (be it green/renewable energy, sustainability, the river and headpond ecosystem), local impacts (the headpond environment, transportation infrastructure, recreation) and cost (the cost of power rates, affordability of the project for the province and future generations).

Full transcriptions of top themes and priorities identified in response to the two questions are provided in Appendix C.

Feedback on Environmental & Social Impacts

The event survey was used to gain an understanding of the level of importance local residents place on the value components being considered in the Comparative Environmental Review and Social Impact Analysis.

The figure below summarizes the results, specifically the percentage of respondents who indicated these impacts were of critical importance.

### ENVIRONMENTAL IMPACTS

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Value Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-90%</td>
<td>Groundwater • Wildlife &amp; wildlife habitat • Aquatic environment • Economy &amp; employment</td>
</tr>
<tr>
<td>70-79%</td>
<td>Vegetation &amp; wetlands • Surface water • Human occupancy &amp; resources use</td>
</tr>
<tr>
<td>60-69%</td>
<td>Infrastructure &amp; services • Atmospheric environment • Transportation</td>
</tr>
<tr>
<td>50-59%</td>
<td>Current use of land &amp; resources for traditional purposes by Aboriginal persons • Heritage resources</td>
</tr>
<tr>
<td>40-49%</td>
<td>Acoustic environment</td>
</tr>
</tbody>
</table>

### SOCIAL IMPACTS

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Value Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-90%</td>
<td>Changes to water supplies &amp; private wells</td>
</tr>
<tr>
<td>70-79%</td>
<td>Property value impact • Potential downstream flooding from ice jams • Changes to recreational uses • Employment, expenditures &amp; businesses • Ice damage to downstream infrastructure • Exposure of lands • Reduced river access</td>
</tr>
<tr>
<td>60-69%</td>
<td>Community identity • Viewshed changes • Transportation access, traffic, safety, road wear • Intakes &amp; outfalls impacts</td>
</tr>
<tr>
<td>50-59%</td>
<td>Community services, infrastructure &amp; housing • Land acquisition</td>
</tr>
<tr>
<td>40-49%</td>
<td>Noise, vibration, dust, odour</td>
</tr>
</tbody>
</table>
Public Opinion Research

NB Power engaged CRA to conduct public opinion research in advance of and immediately following the public engagement program. This helped establish a baseline of awareness across New Brunswick about the Mactaquac Project and informed how the process could best be structured to meaningfully engage as many New Brunswickers as possible.

**Participation:** Representative sample of 400 New Brunswickers in both 2015 and 2016, for a total of 800.

- 6% of adult New Brunswickers participated in the public engagement process, 8% in Southern New Brunswick.

**Awareness:** New Brunswickers who saw or heard anything about Mactaquac in the last year: 65% (52% in Northern New Brunswick, 78% Southern New Brunswick).

- 59% of New Brunswickers are aware of the Mactaquac situation and decision (73% in Southern New Brunswick).

**Satisfaction:** 57% of New Brunswickers who participated agreed somewhat or completely that overall they were satisfied with the public engagement process.

**What New Brunswickers said:**

There was strong agreement among New Brunswickers surveyed that availability of renewable energy generated in New Brunswick has a high level of importance (76%). New Brunswickers also considered it very important to consider how the cost of each option might impact future power rates for customers (68%).

A slight majority (58%) considered how the cost of each option might impact NB Power’s future debt to be highly important, and similarly the impact of the station and the dam on migratory fish species and river health (59%).
Meetings, Tours, Presentations, Briefings and Direct Correspondence

NB Power endeavored to meaningfully engage all interested individuals, public interest advocacy groups, stakeholder organizations and community leaders where information could be shared and feedback gathered.

In the years preceding and during the public engagement period, NB Power and the extended Mactaquac Project team participated in additional activities beyond the scope of the formal engagement process. Including: briefing sessions, presentations, industry conferences, town halls, in-person meetings, academic lectures, and responded to media opportunities. NB Power also engaged with many groups and individuals by phone, email and in writing.

Participation: 1,500+ people engaged (see Appendix A for list of meetings)
300+ records of formal and informal correspondence

Community Liaison Committee

NB Power was committed to regular open communication and dialogue with affected communities throughout the life of the Mactaquac Project. Part of that commitment included the establishment of a Community Liaison Committee (CLC) in the Lower Saint John River Region.

The CLC serves as an advisory group that provides feedback, knowledge and suggestions to NB Power on operations and project-related matters. The group has promoted open communication with area stakeholders and provided them with an opportunity to share feedback on community, environmental, economic or other matters related to both the business of NB Power and the Mactaquac Project.

Participation: While the CLC is primarily focused on station operations, there were seven meetings focused in whole or in part on the Mactaquac Project, the public engagement process, and NB Power’s decision. NB Power also asked and encouraged members of the CLC to extend notices of public engagement activities to others in their network.
Formal Submissions

Stakeholder organizations and individuals were invited to make formal submissions and provide detailed input on the Mactaquac decision. The following organizations have contributed detailed feedback with one or more formal submissions. Those who have granted their permission to have their submissions made public are included in Appendix D, along with a snapshot of email and mail submissions from the public (Appendix E).

Participation: 11 formal submissions from organizations/individuals (see Appendix D)
60+ additional individual written submissions and correspondence

- New Brunswick Salmon Council
- Friends of Mactaquac Lake
- Keswick Islands Property Owners Association
- WWF Canada
- Mactaquac County Chamber of Commerce
- Atlantic Salmon Federation
- Nature Conservancy of Canada
- School for Resource and Environmental Studies, Dalhousie University
- Sustainable Energy Group & Transition Town Woodstock

What New Brunswickers said:

Formal submissions advanced a wide range of priorities and interests – from local property owners to various fish species, to economic interests. Similar to other inputs, the priorities identified in formal submissions were coded for the purpose of this analysis.
Conclusion

As previously stated, the goal of this engagement process was to gather broad, values-based input from New Brunswickers to inform and influence NB Power’s 2016 decision making process on the future of the Mactaquac Generating Station. With a majority of New Brunswickers now aware of the big decision to be made about Mactaquac, and thousands of residents from every corner of the province directly participating in the process, the engagement team feels that this goal has been achieved.

Throughout the process and in review of these final findings, NB Power has indicated that the input that has been gathered has been very informative to their decision making process.

Public engagement has led us to a much deeper understanding of what New Brunswickers care most about when it comes to the Mactaquac decision. We are pleased to present this report of the program results.
About NATIONAL

NATIONAL is a full service communications firm with more than 375 professionals, offering clients a great depth and breadth of expertise across geographies and practice areas.

NATIONAL serves regional, national and international clients from offices in Halifax, St. John’s, Saint John, Quebec City, Montreal, Ottawa, Toronto, Calgary, Vancouver, New York, London, UK, and Denmark. In Atlantic Canada, NATIONAL’s success over the last 30 years has yielded a reputation for helping clients make meaningful connections with their stakeholders.

At NATIONAL, we believe in the power of public engagement to generate better, more informed decisions. Our team adheres to the principles for engagement practice set by the International Association for Public Participation.

Our integrated approach to engagement strategy aims to make engagement easy, interesting and meaningful for stakeholders. Our programs have been successful in building awareness and understanding, achieving high levels of participation, and also generating rich and actionable input.

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Along with their reputation of being one of Canada’s foremost, full service market intelligence and market research companies, Corporate Research Associates Inc. (CRA) boasts one of the largest contingents of Certified Marketing Research Professionals (CMRPs) in the country.

With a focus on insights and providing direction and measurable outcomes, CRA adheres to a set of guiding principles and core values that defines the organization and those who work with them. CRA is proud of a solid reputation for integrity, a key asset in the conduct of marketing research and with the community.

CRA has been a certified gold-seal member of Canada’s marketing research industry association since 1996. As a non-partisan research provider, CRA provides a full spectrum of qualitative and quantitative research services and works extensively with public, private and non-profit sector clients across Canada and abroad.