# The Impact of the Muskrat Falls Project:

# A Choice for Government

Prepared for

NAPE | Newfoundland and Labrador Association
of Public and Private Employees

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# Contents



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# Executive summary

The Muskrat Falls project is under formal scrutiny by both the Public Utilities Board and a Commission of Inquiry. It has been called "the biggest economic mistake in Newfoundland and Labrador's history" (by current Premier Dwight Ball), and a "boondoggle" (by current Nalcor CEO Stan Marshall).

The current price tag for the project is about double the early estimates — at $12.7 billion. This is almost the size of the provincial net debt, and is equivalent to about $24,000 per provincial resident, or $58,000 per household.

This costs of Muskrat Falls will have to be paid, and the key questions are how it gets paid and by whom. This report considers the costs, who will pay them, the potential impacts on public programs and services and on NAPE members, and alternative ways that Muskrat Falls costs could be paid.

## Impact on public services

The impact of Muskrat Falls costs on public services will be determined entirely through a political choice by the government. There is nothing inevitable about the allocation of the costs. That decision will be made in 2020, after the final Public Utilities Board report is completed. In the meantime, the government announced in April 2019 its plan for the year 2021. In doing so — a month before a general election — it claimed "Newfoundlanders and Labradorians will not bear the cost of Muskrat Falls."

That claim was not accurate.

The government's current plan revolves around mitigating electricity rate increases to essentially zero (current costs and proposals plus inflation), and then filling in the enormous financial gap this decision creates. The government also made the political choice not to use tax increases to fill the gap. It appears the government is choosing cuts to infrastructure, programs and services:

> *We have been forced to source hundreds of millions of dollars to ensure rates in this province are not impacted by Muskrat Falls. This is a significant lost opportunity for the province, as this revenue could have been used for important infrastructure programs and services, such as roads, schools, and hospitals.*

The government's current plan lists $725.9 million in measures to address the costs in 2021. There are some relatively small revenue-increasing and cost-reducing items, adding up to $98.6 million. However, the large items are a mix of somewhat speculative items (e.g., federal contributions) and what amounts to essentially shifting money from one pocket to another. The pocket being lightened is the public treasury, by diversion of dividends and other revenues into rate mitigation. The amount of shifting and speculative funds is over $600 million.

One cannot be certain *where* the government would make roughly $600 million in cuts, but it is clear that cutting that amount would have far-reaching impacts, whether focussed in one area, or spread across many areas. It could mean:

- Cutting 20 per cent of hospitals and healthcare workers;
- Cutting three quarters of all K–12 teachers and schools;
- Cutting transfers to low-income seniors, individuals, families, and persons with disabilities, and then looking for another four times as much to cut elsewhere; or
- Eliminating all investment in new and existing schools, healthcare facilities, post-secondary institutions, roads and bridges, justice facilities, affordable housing, and municipal infrastructure.

Unfortunately, if the government proceeds with cuts, then those who pay the most will be those who rely the most on government spending — and this is disproportionately the elderly, the low income, the sick, children, rural residents, and others who are vulnerable. The decision to avoid having ratepayers or taxpayers contribute to the cost of Muskrat Falls is that the vulnerable will be forced to pay.

## Potential impact on collective bargaining for NAPE members

The government, if it pursues such austerity-level cuts, may be seeking major concessions from NAPE — large-scale wage reductions, benefit cuts, or layoffs.

The government has already begun to message that it has no choice, that it has been "forced" to cut deeply. Muskrat Falls may well be the excuse to seek hundreds of millions of dollars of cuts. To give a sense of the impacts, a cut of $500 million applied across the public service:

- If applied by salaries, would mean a pay cut of about $11,000 per public sector worker (including NAPE members and others); or
- If applied by layoffs instead of salary cuts, would mean about 7,700 public sector workers being laid off, of which about 3,400 would be NAPE members.

This scale of cutting would have severe impacts in all parts of the province, not just in St. John's, as public servants work in every region. It also would result in thousands of jobs being lost in the private sector. Economic multipliers suggest 7,700 public sector jobs cut would result in 3,100 jobs being lost in the private sector.

## Potential impact on individual NAPE members

The impact on individual NAPE members will, again, vary depending on the government's choices about how to allocate costs. If the government chooses to allocate the Muskrat Falls costs equitably, then the impact on individual NAPE members' bottom lines will be about the same as it is on other Newfoundlanders and Labradorians.

However, if the government chooses to target the public service by cutting infrastructure, programs and services, then the impacts on individual NAPE members will be much larger, including:

- The risk of unemployment for many;
- For those who remain, moving closer to the bottom of the seniority list;
- Reduced bargaining power for NAPE, with potential impacts to wages, working conditions, pensions, and other benefits;
- Higher out-of-pocket costs that were formerly covered by government programs and services

## Alternatives to cuts

The government does not need to go down this road to austerity, with its predictable negative impacts on employment, businesses, and the economy. It can adopt a set of options that is balanced and innovative, and can produce far better results than cuts.

- **Electricity rates.** Instead of adopting the extreme position of essentially zero rate increase, the government could adopt the mid-point of the Atlantic average rate of 17 cents per kWh, which more closely reflects the realistic cost of new electricity production, and fits better with years of customer expectations. This would contribute $313.4 million toward the costs of Muskrat Falls.
- **Energy efficiency.** Impacts of rate increases on consumers can be reduced by energy efficiency measures that pay for themselves in a few years. The government could expand its existing financing mechanisms to help people pay the initial costs of investment in energy efficiency. This could provide annual net benefits of over 1,000 jobs, energy savings to consumers, a $300 million boost to GDP, and $136 million per year in provincial revenues.
- **Electrification.** Converting fossil fuel energy uses to electricity can help sustain demand for Muskrat Falls electricity, maintaining electricity revenues. Accelerated, economy-wide electrification could provide electricity revenues averaging over $200 million per year for the 2020 to 2040 period.
- **Other revenues.** Tax rates for large corporations and high income individuals are below Atlantic averages, and could be increased. Carbon taxes increases could be accelerated,

along with rebates and programs to make low and middle income earners better off than they would have been without the increases.

The first three alternatives add up to more than the government's mix of speculative and money-shifting mechanisms. The government can pay for Muskrat Falls without deep cuts to important infrastructure, programs and services, and laying off thousands of people. Indeed it can do so while helping to create new jobs, save money for consumers, and achieve the province's climate change goals.

# 1. Introduction

The Muskrat Falls project is undergoing a considerable degree of formal scrutiny; it is being reviewed by a Commission of Inquiry (the "Inquiry"),[1] and its cost impact is being reviewed by the Public Utilities Board.[2]

This formal scrutiny is valuable, but came too late to prevent the high costs of the project. The decision to bypass a Public Utilities Board review of the project at the outset, combined with inadequate oversight and transparency from the Nalcor and government promoters of the project, have brought the situation to its current state. The Muskrat Falls project is now being called, among other things, "the biggest economic mistake in Newfoundland and Labrador's history"[3] (by current Premier Dwight Ball), and a "boondoggle"[4] (by current Nalcor CEO Stan Marshall).

Some of the early, overall intentions behind the project were understandable — a large supply of low-carbon electricity to meet anticipated future needs, which would help to stimulate employment and economic development, replace the polluting and costly generation at Holyrood station, and earn money from electricity exports.

However, it soon became apparent that the much hoped-for project was not as originally communicated. Electricity demand forecasts have fallen — something observed elsewhere in North America, including in the intended markets for Muskrat Falls electricity exports. More importantly, Muskrat Falls project costs rose dramatically, which is not uncommon among mega-projects; corporations entrusted to build megaprojects for governments have an incentive to raise costs, and governments often don't have the capacity or political will to manage them.

The current price tag for the project is about double the early estimates — at $12.7 billion. This cost will have to be paid, and the key questions are how it gets paid and by whom.

The financial cost is not the only problem. Muskrat Falls also brings significant environmental and socio-economic impacts, especially due to methylmercury contamination that threatens Inuit

[1] The Commission of Inquiry Respecting the Muskrat Falls Project (the "Inquiry"), muskratfallsinquiry.ca.

[2] Public Utilities Board, "Reference to Board on Rate Mitigation Options and Impacts," pub.nf.ca/2018ratemitigation/index.php.

[2] Public Utilities Board, "Reference to Board on Rate Mitigation Options and Impacts," pub.nf.ca/2018ratemitigation/index.php.

[3] "Muskrat Falls biggest economic mistake in N.L. history, premier tells fundraiser," *CBC News*, September 28, 2018, cbc.ca/news/canada/newfoundland-labrador/dwight-ball-muskrat-falls-loans-1.4842038.

[4] T. Roberts, "Ratepayer versus taxpayer: Stan Marshall raises subsidization question in latest talk on Muskrat Falls," *CBC News*, May 30, 2018, cbc.ca/news/canada/newfoundland-labrador/stan-marshall-rates-1.4683797; T. Roberts, "It's official: Muskrat Falls a boondoggle, says Stan Marshall," *CBC News*, June 24, 2016, cbc.ca/news/canada/newfoundland-labrador/stan-marshall-muskrat-falls-update-1.3649540

health and traditional livelihoods.[5] Government did not pay enough attention to this in the early days, and may not have consulted adequately. These issues are complex and beyond the scope of this report; they will require in-depth analysis to be carried out in conjunction with the affected people. This report focuses on the financial impacts of Muskrat Falls.

The next section examines the background and context for the financial cost of Muskrat Falls, and how it will get paid and by whom.

The report then considers the impact that those costs could have on public infrastructure, programs and services that residents rely on. The government's current plan for allocating the costs in 2021 is discussed.

The report then looks at the potential impact of Muskrat Falls costs on members of the Newfoundland and Labrador Association of Public and Private Employees (NAPE) — both through collective bargaining and as individuals.

The report then outlines a set of alternative measures that could cover the cost of Muskrat Falls while not cutting infrastructure, programs and services, but rather boosting energy efficiency, using clean electricity to reduce fossil fuel use, and creating jobs and economic growth.

[5] See T. Sheldon, T. Bell, et al., "Lake Melville: Avativut, Kanuittailinnivut (Our Environment, Our Health)," Nunatsiavut Government, 2016, https://bgc.seas.harvard.edu/assets/sciencereport-low1.pdf.

# 2. Background and context

The potential for hydroelectricity development on the Churchill River was noted in the early 1900s. The Upper Churchill project was completed in 1971, and under the arrangements made at the time, Quebec has received more than 10 times the profits received by Newfoundland and Labrador. That arrangement, which ends in 2041, motivated a series of politicians to consider electricity generation options that could provide a “win” for the province.

In 2012, the Progressive Conservative government approved the Muskrat Falls project, on the lower Churchill River. The government refused to allow the normal review by the Public Utilities Board — a review that may have resulted in a different project, or a different decision altogether.

Soon after approval, construction companies were bidding 60 to 160 per cent higher than estimated for contracts, and within months, the project’s contingency fund was exhausted.[6] Cost overruns continued, adding billions to the project cost; public concern grew and the Progressive Conservative government lost the 2015 election.

After inheriting Muskrat Falls, the new Liberal government continued with the project, rather than terminating it as many had suggested. This decision was due in part[7] to the legal claims that would have arisen from cancellation; penalty clauses are common in deals with corporations building megaprojects.

> *If we halted this project, we would have spent $6.7 billion, and would have to spend billions more to settle claims and bring the project to some conclusion.*
>
> — Nalcor CEO Stan Marshall.[8]

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[6] H. Mckenzie-Sutter, “Audit finds Muskrat Falls cost overruns were obvious soon after project was sanctioned,” *The Globe and Mail*, February 18, 2019, theglobeandmail.com/canada/article-audit-finds-muskrat-falls-cost-overruns-were-obvious-soon-after/.

[7] It seems the sunk cost fallacy may have been influential in decisions to continue with Muskrat Falls over the years: E. Gilchrist, “The Startling Similarities Between Newfoundland’s Muskrat Falls Boondoggle and B.C.’s Site C Dam,” *The Narwhal*, March 14, 2017, thenarwhal.ca/startling-similarities-between-newfoundland-s-muskrat-falls-boondoggle-and-b-c-s-site-c-dam/. It is possible that contracts were deliberately locked in, early in the project’s history, to get it “past the point of no return,” as with B.C.’s Site C dam. See also J. Hunter and I. Bailey, “BC Liberals, NDP spar over Site C dam,” *The Globe and Mail*, April 18, 2017, theglobeandmail.com/news/british-columbia/bc-liberals-ndp-spar-over-site-c-dam/article34746993/.

[8] T. Roberts, "It's official: Muskrat Falls a boondoggle, says Stan Marshall," supra note 4.

## The costs

Cost overruns have raised the price of Muskrat Falls to $12.7 billion, though it could end up higher.[9]

To give a sense of scale to that number:

- The provincial government net debt is $14.7 billion.[10]
- Progressive Conservative tax cuts cost the treasury $4.2 billion as of 2016, and more today (i.e., it created that level of net debt,[11] and undercut the fiscal balance by hundreds of millions of dollars per year — a problem that continues today).
- A cost of $12.7 billion translates to about $24,000 per person in the province, or $58,000 per household.

Clearly, the cost of Muskrat Falls is substantial. However, it need not drive the province into bankruptcy or cause immense suffering. It is a problem that can be tackled. This is not to argue that it is a small amount, but rather to put it into perspective. Perspective is necessary so that we can have a rational examination of solutions, rather than a reaction that leads to more decisions that everyone regrets later.

Finally, it is important to acknowledge that there is no magic bullet that will eliminate the project's costs. Nobody is happy about the costs, but nothing that the government or anyone else does will make the costs go away. The costs will need to be paid off. The only question is how.

[9] The financing scheme for the project was complex and somewhat unusual, making the numbers arguable. David Vardy, former Secretary to Cabinet and former Chair of the Public Utility Board, argues that the total is $13.7 billion when financing costs are properly counted: D. Vardy, "Finance Department Left Out of Muskrat Risk Assessments," June 13, 2019, unclegnarley.blogspot.com/2019/06/finance-department-left-out-of-muskrat.html.

[10] About 30 per cent of the net debt is due to borrowing to support Muskrat Falls.

[11] Government of Newfoundland and Labrador, "Total Cost of Tax and Fee Changes from 2004-2015 Estimated Costs," atipp-search.gov.nl.ca/public/atipp/requestdownload?id=1947. The current government has noted that those cuts were financially unsustainable: Government of Newfoundland and Labrador, "Budget Action," 2016, budget.gov.nl.ca/budget2016/highlights/revenueaction.pdf. Others have noted that they disproportionately benefited the wealthy: e.g., Robert Sweeny, "Taxes and fairness, Part 1: Danny's other legacy," *The Independent*, April 30, 2018, theindependent.ca/2018/04/30/taxes-and-fairness-part-1-dannys-other-legacy/; D. Gibson and G. Flanagan, "Newfoundland and Labrador Options for a Strong Economy," Canadian Centre for Policy Alternatives, November 2014, policyalternatives.ca/sites/default/files/uploads/publications/National Office/2014/11/Newfoundland_Labrador_Options.pdf.

# 3. Potential impact on public services

The costs of Muskrat Falls could have very large impacts on public services, or much smaller impacts. It depends largely on the choice that the government makes on the means to pay those costs.

The overall choice of how the cost will be paid is a political one, and will be made by government. There is nothing inevitable about that choice; whatever government ends up selecting, the government will own that choice, because it was entirely capable of making a different one.

So far, the provincial government has indicated it will make its final choice of how to pay the costs after the Public Utilities Board releases its final report in January 2020:

> *[The] government will… [u]se the PUB's final report on rate management, due in January 2020, to inform our final plan."*
>
> — Government of Newfoundland and Labrador[12]

In the meantime, the government has set out its current plan for dealing with the costs for the year 2021.[13] As emphasized above, the government can change this plan, and as suggested below it should.

## The government's current plan for 2021 costs

On April 15, 2019, 31 days before the provincial election, the government released[14] its current plan for 2021, titled "Protecting You from the Cost Impacts of Muskrat Falls."[15] In it, the government stated:

> *Our government made a commitment: that Newfoundlanders and Labradorians will not bear the cost of Muskrat Falls.*

While politically appealing at election time, the title and the above statement are not accurate:

[12] Government of Newfoundland and Labrador, "Protecting You from the Cost Impacts of Muskrat Falls," April 2019, gov.nl.ca/nr/muskratfallsframework/files/Framework.pdf.
[13] Ibid., Government of Newfoundland and Labrador.
[14] The timing of the government's release may have been influenced by the opposition Progressive Conservative party's pre-election release of its "Crosbie Hydro Energy Action Plan" (CHEAP): Office Of The Official Opposition, "Crosbie Hydro Energy Action Plan," March 11, 2019, pcnl.ca/sites/default/files/crosbie_hydro_full.pdf.
[15] Government of Newfoundland and Labrador, supra note 12.

- The government's current plan does not, in fact, protect Newfoundlanders and Labradorians from the cost impacts of Muskrat Falls; and
- Under that plan, Newfoundlanders and Labradorians will bear the cost of Muskrat Falls.

The government's current plan can be changed, and subsequent years' choices[16] are wide open, although the government has said it intends to follow a similar approach.

The government's chosen approach was to allocate the costs of Muskrat Falls around the notion of mitigating electricity rate increases to essentially zero. The government chose its target electricity rate, and then identified various options to fill the enormous financial gap that this decision created.

Filling the gap, in this case, consisted of some small cost savings, some small increases in electricity revenues, and leaving the majority to be covered by other means — increase taxes, cut public infrastructure, programs and services, or use debt.

The government made another political choice in its current plan for 2021 — to eliminate tax increases as an option.

> *[R]ates paid for electric energy in Newfoundland and Labrador will remain the same as they would if the project had never happened, and we will not raise taxes to achieve that goal.*
>
> — Government of Newfoundland and Labrador[17]

These two political choices — rate mitigation and no tax increases — leave two options: cuts and debt.

Despite claiming that Newfoundlanders and Labradorians "will not bear the costs," the government has candidly acknowledged that its current plan for 2021 means that rates will be protected at the expense of public infrastructure, programs and services.

> *We have been forced to source hundreds of millions of dollars to ensure rates in this province are not impacted by Muskrat Falls. This is a significant lost opportunity for the province, as this revenue could have been used for important infrastructure, programs and services, such as roads, schools, and hospitals.*[18]

The first sentence ("we have been forced") fails to acknowledge the political choice to not allow rates to rise.

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[16] Premier Ball suggested in his testimony before the inquiry that government will be paying for rate mitigation over about 10 years: A. Fitzpatrick, "'This is far from over,' premier says at Muskrat Falls Inquiry," *The Telegram*, July 5, 2019, thetelegram.com/news/local/this-is-far-from-over-premier-says-at-muskrat-falls-inquiry-330293/.
[17] Government of Newfoundland and Labrador, supra note 12.
[18] Government of Newfoundland and Labrador, supra note 12.

The second sentence fails to acknowledge the other political choice — to not raise tax revenues. However, it does begin to list some of the costs of that choice: "infrastructure, programs and services, such as roads, schools, and hospitals."

This list of costs strongly suggests that the government's current intention is to cut spending rather than relying on debt that gets paid off through future revenue increases. The statement "we will not raise taxes" in respect of Muskrat Falls costs carries an implicit assumption that the government won't raise taxes in the years after 2021.

Note that the government could have taken, and still can take, an entirely different approach to managing Muskrat Falls costs, for instance committing to safeguarding public infrastructure, programs and services. It would then develop a reasonable rate policy and revenues and savings to manage the costs.

The breakdown of the government's current approach for allocating Muskrat Falls 2021 costs is shown in Figure 1.

### Figure 1: Government's current plan for allocating Muskrat Falls 2021 costs[19]

| Managing Muskrat Falls | | | |
|---|---|---|---|
| | | For the Year 2021 | Amount Remaining |
| **Funding Requirement (millions)[1]** | | **725.9** | |
| | **NL Hydro Net Operations Savings - $178.2** | | |
| 1 | Holyrood net fuel savings and inflation impacts | -178.2 | 547.7 |
| | **NL Investment - $249.1 million:** | | |
| 2 | NL Hydro surplus energy | -49.1 | 498.6 |
| 3 | Nalcor dividend | -200.0 | 298.6 |
| | **Reducing Expenses - $39.4 million:** | | |
| 4 | Organizational change | -20.0 | 278.6 |
| 5 | Muskrat Falls operations and maintenance | -12.0 | 266.6 |
| 6 | Isolated diesel systems | -7.4 | 259.2 |
| | **Raising Revenue - $59.2 million:** | | |
| 7 | Fuel Switching / Electrification | -15.0 | 244.2 |
| 8 | Add value to energy surplus | -35.5 | 208.7 |
| 9 | Holyrood Performance Credits (carbon credits) | -8.7 | 200.0 |
| | **Financial Management - $200 million:** | | |
| 10 | Collaborate with Government of Canada | -200.0 | 0.0 |
| **Cost Impact on You: $0** | | | |
| **Total Provincial Sources: $525.9 M** | | **Federal Involvement: Addressing $200 M Gap** | |

1. See References and Assumptions section for underlying rationales and assumptions

[19] Government of Newfoundland and Labrador, supra note 12.

The government's numbers vary in their certainty, and what they represent. Raising revenues ($59.2 million) and reducing expenses ($39.4 million) seem relatively clear, even if the numbers (totalling $98.6 million) may be subject to debate.

However, the large majority of the funds are less clear, and either are somewhat speculative (collaborate with Government of Canada — $200 million[20]) or seem to amount to shifting money from one pocket to another (Holyrood net fuel savings and inflation impacts, NL Investment — $427.3 million), for a combined total of $627.3 million.[21]

The money being shifted appears to be money that otherwise would accrue to the provincial treasury to fund public infrastructure, programs and services. If the government chooses to shift those funds into electricity rate reduction, without tax or other revenues to backfill it, the result will be cuts to future spending. Likewise, if speculative funds fail to materialize in full, and rates and taxes are avoided, again it seems there will be cuts to future spending.

## The costs of cutting infrastructure, programs and services

The government's pre-election pivot to 100 per cent rate mitigation for 2021 was a sudden and dramatic change of policy, and one that could have enormous negative impacts if it is implemented through cuts.

The government is correct that funds shifted into rate mitigation could have been used for important infrastructure, programs and services, such as roads, schools, and hospitals. Here are a few examples from the 2019 budget to compare to the $627.3 million:

- The 2019 budget investment in "new and existing schools, healthcare facilities, post-secondary institutions, roads and bridges, justice facilities, affordable housing and municipal infrastructure" was $594.3 million.[22]
- The Newfoundland and Labrador Income Supplement and the Newfoundland and Labrador Seniors' Benefit put "approximately $123 million in the hands of low-income seniors, individuals, families, and persons with disabilities."[23]
- The estimated spending on education and early childhood development was $836.3 million.[24]

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[20] While possible, there is little in the document to substantiate the $200 million figure, let alone a commitment by the federal government. It appears to be early stages of the discussions; according to the document, the two governments have agreed to "conclude the discussions in as expeditious a manner as possible, so that the key policy issues are identified before the Public Utilities Board prepares its final report."

[21] The Official Opposition's "CHEAP" proposal was no better, and may have been worse: "Energy expert pans Crosbie's Muskrat Falls 'ridiculous' rate mitigation plan," *CBC News*, March 22, 2019, cbc.ca/news/canada/newfoundland-labrador/ches-crosbie-cheap-plan-muskrat-falls-1.5062288.

[22] Government of Newfoundland and Labrador, "Budget 2019 – Our Financial Plan," gov.nl.ca/budget/files/2019/our-financial-plan/Financial-Plan.pdf.

[23] Ibid., Government of Newfoundland and Labrador.

- The estimated spending on health and community services — the largest budget item — was $3.020 billion.[25]

One cannot be certain *where* the government would make roughly $600 million in cuts, but it is clear that cutting that amount would have far-reaching impacts, whether focussed in one area, or spread across many areas. It could mean:

- Cutting 20 per cent of hospitals and healthcare workers;
- Cutting the majority of all K–12 teachers and schools;
- Cutting transfers to low-income seniors, individuals, families, and persons with disabilities, and then looking for another four times as much to cut elsewhere; or
- Eliminating all investment in new and existing schools, healthcare facilities, post-secondary institutions, roads and bridges, justice facilities, affordable housing and municipal infrastructure.

As another way to look at it, what could $600 million accomplish? It could:

- Eliminate tuition and other student fees at Memorial University — with about $545 million left over;[26]
- Build hospitals — the Corner Brook Hospital is currently pegged at $750 million,[27] and the new Waterford mental health and addictions hospital will cost $200 million; or
- Provide an electric vehicle rebate of $8,000 per vehicle (the largest available in Canada) to complement the $5,000 federal rebate, and have plenty of money left over. Even if 50 per cent of new car buyers in the province were encouraged to buy an electric vehicle, the cost would be just $121 million per year.[28]

Unfortunately, if the government proceeds with the costs being paid from cuts, those who pay the most will be those who rely the most on government spending. This is disproportionately the elderly, the low income, the sick, children, rural residents, and others who are vulnerable. The decision to avoid having ratepayers or taxpayers contribute to the cost of Muskrat Falls is that the vulnerable will be forced to pay.

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[24] Government of Newfoundland and Labrador, Estimates of the Program Expenditure and Revenue of the Consolidated Revenue Fund 2019-20, gov.nl.ca/budget/2019/wp-content/uploads/sites/2/2019/04/estimates.pdf

[25] Ibid., Government of Newfoundland and Labrador.

[26] Tuition, campus renewal, and student services fees total about $55 million: "2018-19 Operating Budget," Memorial University, mun.ca/vpacademic/What_We_Do/budget/updates/BUDGET_2018-2019.pdf.

[27] "$750M contract awarded for new Corner Brook hospital," CBC News, June 28, 2019, cbc.ca/news/canada/newfoundland-labrador/corner-brook-new-hospital-1.5193775. The P3 nature of this project raises similar questions about transparency and the capacity of the government to prevent the contractor from escalating the cost beyond $750 million.

[28] Based on 2018 sales of 30,254, "New motor vehicle sales," Statistics Canada, www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=2010000101#timeframe. 50 per cent uptake is very unlikely in the short term, and is provided for illustration only. Uptake in Quebec is closer to 10 per cent.

Another factor to consider is the impact on business and private sector employment. When government cuts spending, there are ripple effects throughout the economy. Just as spending creates jobs throughout the economy, cutting spending kills jobs throughout the economy. Given the fragility of the economy, austerity level cuts are a price that the province cannot afford, especially when better alternatives are available (as outlined in Section 6).

# 4. Potential impact on collective bargaining for NAPE members

As noted above, the current direction that the government appears to have chosen for 2021 would mean cuts to infrastructure, programs and services, with impacts on all Newfoundlanders and Labradorians, especially the vulnerable.

Those choices would also mean very direct and personal impacts on NAPE members, as the government will likely press for concessions during the next round of collective bargaining. Given the scale, this will entail some combination of layoffs, wage cuts, and benefit cuts, carried out directly or through privatization. This, of course, comes in the context of significant worker concessions in recent negotiations — including zero wage increases.

To obtain these outcomes, the government may take a hardened position demanding major concessions, and an inflexible approach to bargaining. However, the government's efforts likely would commence prior to bargaining, with attempt to justify its position through public communications. The government likely would build and repeat the public case for cuts. It would aim to convince members of the public — especially individual NAPE members — that NAPE concessions are required because of Muskrat Falls. It would seek cover by saying that, unfortunately, it is "out of our hands"; it was caused by Muskrat Falls decisions made years ago by another government; government has no choice; etc.

Of course, none of these sound bites will be true, because the "need" for cuts will have been created by two political decisions made by this government:

- Preventing reasonable rate increases, causing losses to the treasury; and
- Ruling out taxes to backfill the resulting losses to the treasury.

Some of that language is already appearing in government communications, for example the 2021 rate mitigation plan ("we have been forced"). It will be repeated — and expanded upon — by business lobbyists and right-wing organizations and commentators who have led the calls for austerity-level cuts to public spending for many years.

Since the 2015 global oil price crash, those calls for austerity have increased. Campaigns by the labour movement and social justice organizations have held back the tide of demands, and reduced the scale of cuts that government has made. However, this time may be different. The government will now have a case that already resonates with the public ("Muskrat Falls is a disaster"), and which they can blame on the previous government. The media will have been conditioned into largely agreeing with them, due to the constant barrage of Muskrat Falls disaster narrative. The cuts could be much larger this time.

The government's 2021 plan provides some indication of the dollar amount of the concessions that the government may be seeking. Of course, there are many influences on the province's fiscal position coming from outside of Muskrat Falls, as well as non-fiscal political considerations for the government. However, the Muskrat Falls costs will probably give a sense of scale. If the government cuts at the scale being discussed, it will be seeking to reduce costs by hundreds of millions of dollars per year.

To provide rough, order-of-magnitude estimates, a cut of, say, $500 million applied across the public service:[29]

- If applied via salaries, would mean a pay cut of about $11,000 per public sector worker (including NAPE members); and
- If applied via layoffs instead of salary cuts, would mean about 7,700 public sector workers being laid off, of which 3,400 would be NAPE members.[30]

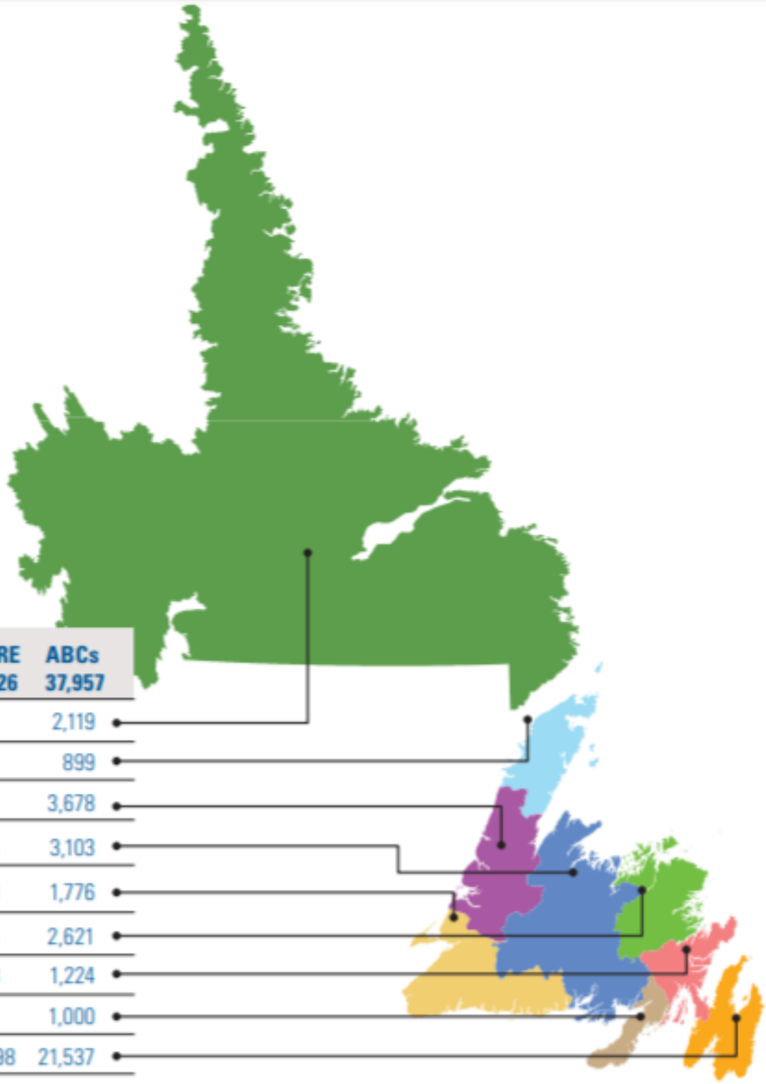
This scale of cutting would have severe impacts in all parts of the province, and not just in St. John's, as the public sector works in every region (see Figure 2). It also would result in thousands of jobs being lost in the private sector. Government multipliers suggest 7,700 public sector jobs cut would result in 3,100 jobs being lost in the private sector.[31]

[29] The total public sector workforce is roughly 45,000, including core government, agencies, boards, and commissions: Government of Newfoundland and Labrador, "Profile of the Public Service," exec.gov.nl.ca/exec/hrs/pdf/attrition.pdf.
[30] Assuming, for the purpose of rough estimation, about 20,000 public sector NAPE members, at an average salary of $50,000, plus overheads of $15,000.
[31] Statistics Canada, "Provincial Input-Output Multipliers, 2014," published 2018, and author's calculations.

### Figure 2: The public service works in all parts of the province[32]

## Profile of the Public Service

The map reflects the geographic location of active employees of the public service as of December 31, 2014. This includes core government departments and outside agencies, boards and commissions (ABCs).



| Active Employees* | TOTAL 46,183 | CORE 8,226 | ABCs 37,957 |
|---|---|---|---|
| Labrador | 2,550 | 431 | 2,119 |
| St. Anthony-Port au Choix | 1,026 | 127 | 899 |
| Corner Brook-Rocky Harbour | 4,450 | 772 | 3,678 |
| Grand Falls-Windsor-Baie Verte-Harbour Breton | 3,698 | 595 | 3,103 |
| Stephenville-Port aux Basques | 2,096 | 320 | 1,776 |
| Gander-New-Wes-Valley | 3,046 | 425 | 2,621 |
| Clarenville-Bonavista | 1,517 | 293 | 1,224 |
| Burin Peninsula | 1,165 | 165 | 1,000 |
| Avalon Peninsula | 26,635 | 5,098 | 21,537 |

*Includes core government departments and outside agencies, boards and commissions as of December 31, 2014

While possible, the above impacts are not necessary, and are not necessarily what the government will pursue. The government could consider other options, including those noted in this report, that have more positive economic, employment and climate impacts, while protecting ratepayers.

[32] Government of Newfoundland and Labrador, "Profile of the Public Service," exec.gov.nl.ca/exec/hrs/pdf/attrition.pdf.

# 5. Potential impact on individual NAPE members

This above sections have set out that the impacts of Muskrat Falls — on public infrastructure, programs and services, and on NAPE bargaining — depend largely on the political choices that the government makes in allocating the costs of Muskrat Falls. The impacts could be large or small. The same applies to the impact on individual NAPE members' bottom lines. That impact will be determined by the cost allocation choices that government makes.

The government can choose to allocate the costs fairly and equitably. Or it can choose to target the public service with spending cuts (although targeting the public service will also negatively affect businesses and private sector workers, as noted above).

If the government chooses to allocate the Muskrat Falls costs equitably, the impact on individual NAPE members' bottom lines will be about the same as it is on other Newfoundlanders and Labradorians. There would be a noticeable but liveable increase in electricity rates. However, higher electricity rates do not necessarily mean overall higher electricity costs, as Section 6 will explain: energy efficiency can reduce costs lower than what they were prior to rates rising.

If the government chooses to target the public service by cutting infrastructure, programs and services, the impacts on NAPE members will be much larger, including the risk of unemployment. Needless to say, unemployment can be catastrophic to a working-aged person, in light of the province's chronic shortage of available jobs.

Even for those NAPE members who do not lose their jobs immediately, there would be a number of impacts to individuals if the government cuts infrastructure, programs and services:

- Members will pay more in out-of-pocket costs. For instance, if the government reduces funding for healthcare, members of the public will need to pay user fees or pay out-of-pocket health expenses, which are generally higher than when government pays.[33] A reduction in funding for community centres means more recreation costs for parents, and so on.

[33] See H. Mackenzie and R. Shillington, "Canada's Quiet Bargain: The benefits of public spending," Canadian Centre for Policy Alternatives, 2009, policyalternatives.ca/sites/default/files/uploads/publications/National_Office_Pubs/2009/Benefits_From_Public_Spending.pdf.

- Any increase in unemployment means an increase in the supply of workers needing jobs, and downward pressure on wages, retirement benefits, and other benefits throughout the entire workforce.
- When any NAPE member is laid off, newer NAPE members move closer to the bottom of seniority lists, and the risk that they will be the next to lose their job.
- A reduction in the size or strength of NAPE would reduce its bargaining power vis-a-vis employers, with the possible result of lower wages and retirement benefits and other benefits, and worse working conditions.

# 6. Alternatives to cuts

The government can do a better job at sharing the costs of Muskrat Falls.

It appears that the government currently intends to place far too much of the load on the backs of those who deliver public infrastructure, programs and services. Let's not forget that the vulnerable — those who can least afford to pay — are disproportionately targeted when governments cut public infrastructure, programs and services.

Fortunately, this worst-case scenario need not come to pass. The government has better and more innovative means to manage the costs of Muskrat Falls.

## Include appropriate costs in electricity rates

Normal practice for regulated utility rates is based on the cost of providing service: operational costs, plus a reasonable rate of return on investments.

Including the costs of providing services is transparent and honest; it shows consumers and the public what the real costs are. It does not allow politicians to hide the costs in the provincial accounts.

Nobody wants to pay higher rates, but the fact is that the costs of Muskrat Falls need to be covered, and being more transparent and honest is the best policy.

However, there is an argument that the *full* costs of Muskrat Falls should not be recovered from electricity ratepayers. This argument holds that ratepayers should only pay appropriate costs, i.e. what they would have paid if the Public Utilities Board had been allowed to do its job and the lowest-cost new source of electricity had been used. The additional costs above that appropriate level — from choosing to pursue an expensive project for political or personal reasons — should be paid by government from general revenues, rather than by electricity ratepayers.[34]

What would ratepayers have paid with a low-cost alternative to Muskrat Falls? A reasonable assumption is that the alternative to Muskrat Falls would cost more than the cost of existing electricity. New electricity generation generally does cost more than existing sources; in

[34] There is, of course, an argument that justice systems normally require those who made decisions causing losses to others to pay for those losses. However, in this case, even the well-off decision makers involved have nowhere near the resources needed to pay all of the costs. This is not to say that the justice system shouldn't be considered, but that larger fund sources will need to be pursued.

electricity generation, as in other areas, the lowest-hanging fruit tends to get picked first, and costs get higher as you proceed to add sources.

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***Context: Electricity rates globally***

*Electricity rates vary greatly around the world, based on a range of cost factors, e.g., available hydro resources, subsidies (e.g., to nuclear plants), and taxes. Canadians have been fortunate to have abundant hydro and fossil fuel resources, and more recently wind resources, to keep prices low.*

*While rates have gone up in Newfoundland and Labrador — and across Canada — it has nowhere near the most expensive electricity.*

*The average household rate for the 28 countries in the European Union is over 30 cents / kWh, with the more expensive countries being over 40 cents / kWh.*[35] *U.S. state averages range up to 23 cents (New York and Connecticut) and 43 cents (Hawaii), with individual city rates ranging even higher than state averages. High rates are also found in less wealthy countries, for example Jamaica and Tonga each being upwards of 57 cents / kWh.*[36]

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The government's rationale for a 2021 rate of 13.5 cents per kWh was based on choosing to use existing rates and rate proposals plus inflation. This choice does not reflect a realistic assumption about what it would have cost to source 824 MW of dispatchable generation capacity in lieu of Muskrat Falls. The government's choice was a lowball rate. This lowballing may have been motivated by the "cheap" promises in the Opposition's rate mitigation plan released in March, and by the fact that the election date was one month away.

A more reasonable, realistic assumption about the overall cost of electricity in 2021, given additional generation capacity comparable to Muskrat Falls, would be to use the Atlantic Canada average rates. As noted in the Public Utilities Board interim report on Muskrat Falls, the "Atlantic Canadian average retail customer rate [is] 16-18 cents per kWh." The Public Utilities Board interim report stated that "to maintain rates at between 16-18 cents per kWh the annual shortfall would be between $342 million and $483 million."

Another important consideration in deciding on rate mitigation is customer expectations. Expectations influence investment decisions of residents, industry, and owners of commercial

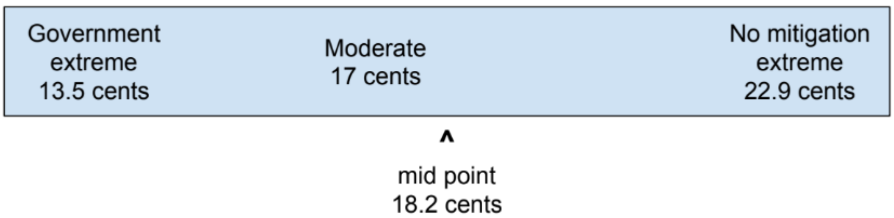
[35] O.2113 Eur / kWh (= 31.5 cents CDN / kWh) as of June 31, 2019: Eurostat, "Electricity price statistics," ec.europa.eu/eurostat/statistics-explained/index.php?title=Electricity_price_statistics.
[36] World Atlas, "Cost of Electricity by Country," worldatlas.com/articles/electricity-rates-around-the-world.html.

and institutional buildings. It has been known for years that rates in 2021 would be higher. For example, in June 2014 Nalcor was projecting 2020 rates of 17.3 cents per KWh, within the Atlantic average. In November 2015, Nalcor was projecting 2020 rates of 19.8 cents per kWh,[37] well above the Atlantic average. Until recently, the government was putting forward the Atlantic average of 16-18 cents for rate mitigation,[38] and NL Hydro consequently was building that in as an assumption in its calculations.[39] Decisions about private buildings and investments were likely made by many on the basis of such projections.[40]

A rate of 17 cents per kWh:

- Places NL in the middle of the Atlantic average;
- Has ratepayers paying an appropriate cost for electricity, but not the additional cost of making a politically-motivated or personally-motivated decision to pursue Muskrat Falls;
- Is based on more realistic assumptions about the cost of additional capacity comparable to Muskrat Falls;
- Is within the band of customer expectations and investments; and
- Is far from either end of the two extremes — rates covering all of the cost increase or none of the cost increase (see Figure 3).

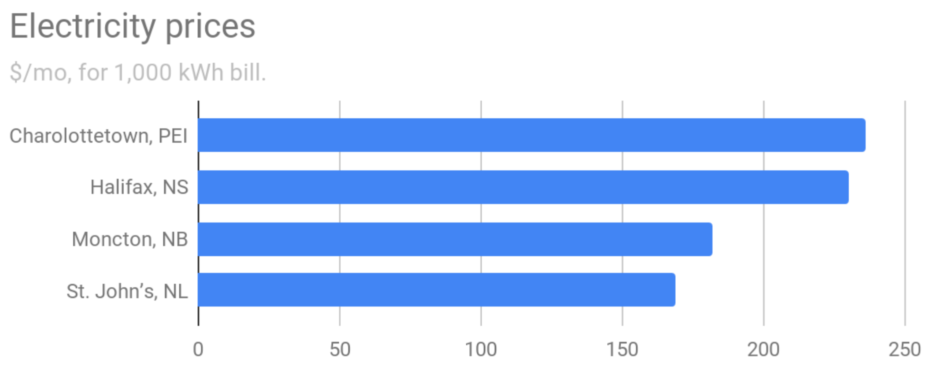
### Figure 3: Rate mitigation range




A moderate rate of 17 cents per kWh would still require a very large subsidy of the cost of electricity in 2021 — $412.5 million[41] — and more in years to come. However, it is much more reasonable than the government's current plan, which would require $725.9 million.

[37] Nalcor, "Questions and Answers Electricity Rates in NL – Updated November 2015," muskratfalls.nalcorenergy.com/wp-content/uploads/2015/12/Electricity-Rates_Updated-Nov-2015.pdf.
[38] "A target range for Atlantic Canada would be between 16 and 18 cents per kWh, [Natural Resources Minister Siobahn] Coady said.… 'We want to be competitive with Atlantic Canada, whatever that Atlantic Canada rate is.'" *CBC News*, "Use oil and gas money to keep power rates in check, says Danny Williams," April 20, 2018, cbc.ca/news/canada/newfoundland-labrador/rates-doubling-nalcor-scrum-coady-1.4627022.
[39] A. Fitzpatrick, "Newfoundland and Labrador Hydro proposes to raise rates to mitigate Muskrat Falls effect," *The Telegram,* July 23, 2018, thetelegram.com/news/local/newfoundland-and-labrador-hydro-proposes-to-raise-rates-to-mitigate-muskrat-falls-effect-228360/.
[40] For example: "NP [Newfoundland Power] customers are already switching to heat pumps and other conservation measures in anticipation of price increases," E. Camp et al., "Phase 1 Findings on Muskrat Falls Project Rate Mitigation," December 31, 2018, pub.nf.ca/2018ratemitigation/report/Synapse Energy Economics - Phase One Report - 2018-12-31.pdf.
[41] Midway between the Public Utilities Board's estimates of $342 million and $483 million for the 16-18 cents per kWh range.

### Figure 4: NL electricity prices lowest in Atlantic Canada[42]




The government's current 2021 plan doesn't dictate what happens in later years. As the government noted, it is waiting for the Public Utilities Board's final report in January 2020, which no doubt will address the future mechanisms of rate setting in the province (i.e., regulated cost-of-service versus political).

Moreover, the government's current 2021 plan does not bind the government for 2021. It could easily move in the direction of normal practice in utility rate-setting, i.e., move toward setting rates according to reasonable cost of service, rather than political expediency. It could, for instance, return to the Atlantic average rate to reflect the appropriate cost of service.

The Atlantic average of 17 cents per kWh is approximately 25 per cent higher than the government's current 13.5 cent rate. So for example, a monthly bill of $200[43] would instead be $250, and a bill of $300 would be $375 if there were no way to use energy efficiency to reduce bills (see below). A difference of $75 is just under 1 per cent of average household spending.[44]

The household scale of analysis raises the question of whether it is necessary to provide rate mitigation for high-income households? Should the government instead just provide a transfer or tax credit to low- and middle-income households to bring them to an equivalent of 17 cents / kWh? This would save money, and could be administered at low cost through the income tax system.

[42] Data: Hydro-Québec, "Comparison of electricity prices," hydroquebec.com/residential/customer-space/rates/comparison-electricity-prices.html.
[43] $164.10 is the mean average monthly bill according to Newfoundland Power, "Residential Rates," newfoundlandpower.com/My-Account/Usage/Electricity-Rates/Residential-Rates.
[44] Average monthly household expenditures in 2017 were $6,732 ($80,786 per year): Newfoundland & Labrador Statistics Agency, "Average expenditure per household Newfoundland and Labrador 2010-2017," stats.gov.nl.ca/Statistics/Topics/personalfinance/PDF/Avg_Hhld_Expenditure_NL.pdf.

## Energy efficiency to reduce rate impacts

As noted above, higher electricity rates have been on the table for years, and customers have been able to prepare and reduce impacts. Many of them have already done so, through energy efficiency improvements.

Ratepayers can gain more financial advantage from energy efficiency than from the government's rate mitigation plan. Energy efficiency investments generally pay for themselves in a few years through energy cost savings. After payback, those savings then continue indefinitely into the future, enabling spending in other areas, boosting economic activity and job creation.

Insulation and weather stripping are cheap, and investment payback times are generally a few years. Heat pumps use 40 to 50 per cent less electricity than baseboard heaters. Even assuming rates rise from 11 or 12 cents per kWh to 17 cents, switching from baseboards to heat pumps would see overall electricity costs reduced.

The main challenge for some has been affording the up-front cost of the efficiency investments. The government has significantly addressed these up-front costs with its Take Charge program,[45] and program uptake has been very high in recent years.

Take Charge rebates are available for insulation, thermostats, showerheads, LED light bulbs, heating systems, and more. The program also has "on-bill financing," which covers the up-front costs of efficient heat pumps and hot water heaters, and allows the energy savings to pay back the costs over time, through utility bills.[46] Heat pump uptake in the province has been "enormous" in recent years, according to a report prepared for the current Public Utilities Board review of Muskrat Falls — a trend expected to continue.[47]

The benefits of energy efficiency upgrades include not just energy cost savings and more comfortable buildings, but also jobs in many sectors — installation, assessment, administration, retail, warehousing and transportation, as well as industries where those workers spend their money, and industries where building owners spend their energy cost savings.

The employment, economic, and fiscal benefits of accelerating energy efficiency retrofits in the province's buildings and industry would be significant. A 2018 report[48] estimated the net impacts (benefits minus costs)[49] of implementing building energy efficiency measures that are needed

[45] Take Charge, "Residential," https://takechargenl.ca/residential/.
[46] Take Charge, "Financing," https://takechargenl.ca/financing/.
[47] E. Camp et al., "Phase 1 Findings on Muskrat Falls Project Rate Mitigation," December 31, 2018, pub.nf.ca/2018ratemitigation/report/Synapse Energy Economics - Phase One Report - 2018-12-31.pdf.
[48] Dunsky Energy Consulting, "The Economic Impact of Improved Energy Efficiency in Canada Employment and Other Economic Outcomes from the Pan-canadian Framework's Energy Efficiency Measures," Clean Energy Canada, April 3, 2018, cleanenergycanada.org/wp-content/uploads/2018/04/TechnicalReport_EnergyEfficiency_20180403_FINAL.pdf
[49] Net benefits are high primarily because of the energy cost savings, which are then spent in the broader economy.

under the Pan Canadian Framework,[50] and found that in Newfoundland and Labrador net benefits would include 11,353 FTE-years of employment over a 14-year period, or an average of 811 jobs per year, and $2.3 billion in GDP over that period, or an average of $200 million per year. That employment and economic activity would create taxable transactions. Tax revenues would be boosted over that period by $700 million for the federal government, and $800 million for the provincial government.

A more ambitious scenario of “best in class” efficiency policies and programs provides net benefits of 1,024 jobs per year, GDP increases of $300 million average per year, and provincial tax revenues averaging of $136 million per year, which could help support Muskrat Falls costs.

The government can further accelerate energy efficiency, and reduce any remaining impacts on customers, by: improving energy efficiency requirements in the building code or adopting an enhanced step-code; expanding Take Charge program rebates; relaxing the borrowing and loan period caps of the existing on-bill financing; expanding program outreach; expanding support for workforce training and certifications; requiring disclosure of full energy costs for buildings; and facilitating upgrades with a single window approach for contractors, rebates, and financing programs.

## Electrification to support revenues

Would the reduction in electricity consumption due to energy efficiency create problems by reducing electricity revenues? Muskrat Falls costs still need to be paid off, so if there were no increases in consumption elsewhere, then consumption reductions would reduce revenues, making it harder to pay off the costs..

However, there is agreement among government and the opposition, the Public Utilities Board, and others that replacing fossil fuel burning with electricity is an effective way to maintain consumption and thus revenues.

> *Electrification of oil-fired end uses offers the greatest promise of increasing revenues to offset fixed Muskrat Falls costs.*
>
> — Synapse report for Public Utilities Board[51]

Electrification basically means handing less money over to foreign-owned oil corporations, and instead spending it on locally generated electricity. Doing so will result in higher revenues than electricity exports would provide; the export market yields low revenues. Absorbing the

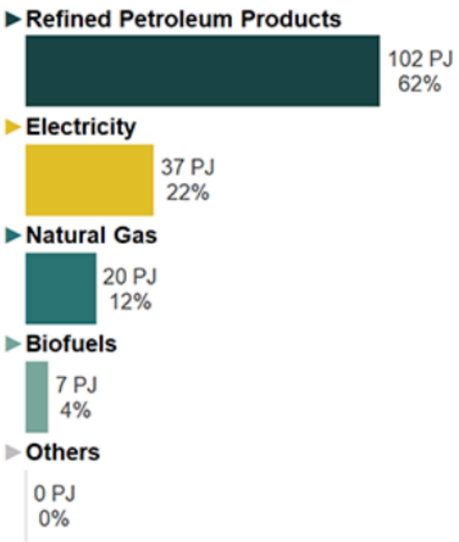
[50] Government of Canada, "Pan-Canadian Framework on Clean Growth and Climate Change," canada.ca/en/services/environment/weather/climatechange/pan-canadian-framework.html.

[51] E. Camp et al., "Phase 1 Findings on Muskrat Falls Project Rate Mitigation," December 31, 2018, pub.nf.ca/2018ratemitigation/report/Synapse Energy Economics - Phase One Report - 2018-12-31.pdf.

province's excess electricity with domestic consumption means lowering the costs of Muskrat Falls for everyone.

There is a very large opportunity for electrification of the province's energy uses. Currently, over 70 per cent of energy used in the province comes from fossil fuels — mainly petroleum products (see Figure 5). Electrification also would be an effective strategy to help the province achieve its climate change goals, which it is currently tracking to miss.

### Figure 5: End use energy demand by fuel in NL, 2016[52]




Government can use a number of strategies to pursue electrification:

- **FUEL SWITCHING.** Government can support more home and building owners to switch from oil or gas to electricity.[53] The existing Take Charge program includes support for installing electric heating systems.[54] This program should be ramped up with the aim of replacing all or virtually all fossil fuel heating systems with efficient electric systems as quickly as possible. The government should also quickly phase in a requirement that all new building heating and hot water systems be efficient electric. The government should also proceed quickly to reduce diesel dependency for isolated communities as noted in the government's 2021 plan.
- **ELECTRIC VEHICLES.** Provinces that have taken policy measures to support EVs have seen rapid uptake. In the first quarter of 2019, both Quebec and B.C. saw EV sales more than 20 times as high, per person, as those of Newfoundland and Labrador.[55] The

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[52] National Energy Board, "Provincial and Territorial Energy Profiles – Newfoundland and Labrador," n.d., neb-one.gc.ca/nrg/ntgrtd/mrkt/nrgsstmprfls/nl-eng.html.
[53] See also E. Camp et al., "Phase 1 Findings on Muskrat Falls Project Rate Mitigation," supra note 51.
[54] For example, see Newfoundland Power, "Financing Plans, Program Details," newfoundlandpower.com/en/My-Account/Services/Financing-Plans/Program-Details.
[55] Source: CanadaEVSales.com, based on manufacturer reports, IHS Markit (via Electric Mobility Canada), and analyst estimates.

conversion to electric vehicles can be supported by a number of policies, for example:[56] setting EV mandates that will result in more EVs available in showrooms for test drive and purchase; expanding access to public and residential chargers; adopting time-of-use pricing (see below) that makes it cheaper to charge EVs overnight; and provincial rebates to raise the visibility and attraction of the new federal EV rebates.

- **TIME-OF-USE (TOU) ELECTRICITY RATES.** Rates can be set to be higher during peak demand, and lower in low-demand periods. This will enable consumers to save money by running washers and charging EVs at night, and also will delay or eliminate future needs for additional generation capacity to cover peak load. It can also enable greater exports during peak (high-price) periods, raising the profitability of exports.[57]

- **CARBON PRICING.** Accelerating the scheduled annual increase in the carbon tax, as B.C. has done, would provide more support for electrification. Rebating even a portion of the revenues to lower and middle income households can make the majority of households better off than they would have been without the increase.

A Synapse report prepared for the current Public Utilities Board review of Muskrat Falls includes a projection showing that aggressive economy-wide electrification could yield gross incremental revenue of “$16.5 million in 2020, rising over time and reaching $115.3 million in 2030,” as the Public Utilities Board cited in its own report.[58] The projections suggest revenues would increase to well over $200 million by 2040, and average over $200 million for the 2020-2040 period.[59] Financing could be used to smooth these savings over time, bringing some of the later years' higher savings forward to 2021.

The government noted the electrification opportunity in its current 2021 plan. It cited the Public Utilities Board report, but the government's $15 million revenue estimate for 2021 seems to come from public buildings alone. It doesn't mention the economy-wide revenue estimates outlined in the Synapse report, nor the fact that they dramatically increase over time.

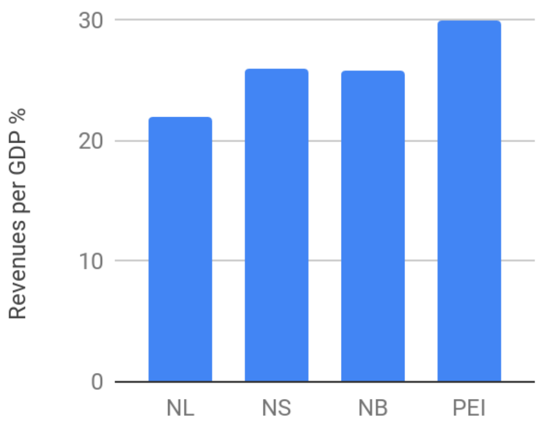
[56] See: R. Baker, "B.C. passes law to increase sales of zero emission vehicles," *CBC News,* May 29, 2019, cbc.ca/news/canada/british-columbia/zero-emission-vehicles-2040-b-c-1.5155274; Drive Electric NL, “Submission for Rate Mitigation Review,” January 17, 2019, pub.nf.ca/2018ratemitigation/submissions/From Drive Electric NL - Submission - January 18, 2019.pdf; Sierra Club and Plug in America, "AchiEVe: Model State & Local Policies to Accelerate Electric Vehicle Adoption Policy Toolkit," June 2018, sierraclub.org/sites/www.sierraclub.org/files/blog/EV Policy Toolkit.pdf.
[57] See also E. Camp et al., "Phase 1 Findings on Muskrat Falls Project Rate Mitigation," supra note 51.
[58] Newfoundland & Labrador Board of Commissioners of Public Utilities, “Reference To The Board – Rate Mitigation Options and Impacts Muskrat Falls Project – Interim Report,” February 15, 2019, www.nr.gov.nl.ca/nr/publications/energy/PUB_rate_mitigation_options_and_paying_for_muskrat_falls.pdf.
[59] Based on a growth rate at 2030 of more than 10 per cent per year and rising: see E. Camp et al., "Phase 1 Findings on Muskrat Falls Project Rate Mitigation," supra note 51.

## Other revenues

In addition to the above actions for boosting electricity and tax revenues, the government can take steps to raise more tax revenues from large corporations and wealthy individuals, and from carbon pollution.[60]

Despite the intense, constant advocacy claiming that provincial taxation is economically unsustainable, provincial government revenues are in fact the lowest per GDP in the Atlantic (see Figure 6).[61] And compared to other OECD countries, overall Canadian government revenues per GDP are below average.[62]

### Figure 6: Atlantic provincial revenues per GDP (2017-18)[63]




With capacity for the economy to sustain greater provincial revenues, where should the government focus its efforts? Again, despite intense, constant messaging claiming that corporations and offshore oil are over-taxed, it appears they don't actually shoulder a huge proportion of the tax load (see Figure 7). The corporate income tax rate for large corporations (15 per cent) remains below its 1990s rate of 17 per cent, and below the Atlantic Canada average.[64]

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[60] For revenue option discussions, see generally: Newfoundland and Labrador Federation of Labour, "Submission to: Independent Tax Review Committee," July 2018, nlfl.nf.ca/wp-content/uploads/2018/07/NLFL-Tax-reform-submission-july-2018.pdf; Common Front of Newfoundland and Labrador, "Submission to the Independent Tax Review Committee," September 25, 2018, wearenl.ca/wp-content/uploads/2018/12/Common-Front-NL-Tax-review-submission-Sept-25-.pdf; and Common Front NL, "Building a jobs-rich, fair, and sustainable economy for Newfoundland and Labrador," December 2016, wearenl.ca/wp-content/uploads/2016/12/A-Better-Future-full-report-final-Dec-6-v3-2016.pdf.

[61] RBC Economic Research, "Canadian Federal and Provincial Fiscal Tables," June 25, 2019, rbc.com/economics/economic-reports/pdf/canadian-fiscal/prov_fiscal.pdf. Per-GDP measures give a sense of how much taxation and public spending the economy can support. See Newfoundland and Labrador Federation of Labour, "Newfoundland and Labrador Budget 2018: Measuring What Matters," February 2018, nlfl.nf.ca/wp-content/uploads/2018/02/measuring-what-matters-NLFL-budget-indicators-report-Feb-2018-.pdf

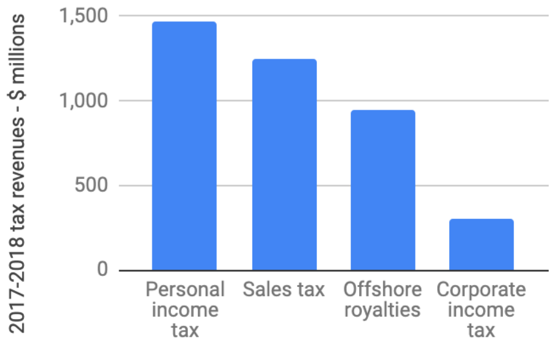
[62] OECD Centre for Tax Policy and Administration, "Revenue Statistics 2018 – Canada," oecd.org/tax/revenue-statistics-canada.pdf.

[63] RBC Economic Research, supra note 61.

[64] Government of Canada, "Corporation tax rates," canada.ca/en/revenue-agency/services/tax/businesses/topics/corporations/corporation-tax-rates.html.

There government can restore the corporate tax rate to 17 per cent, and can adjust offshore royalties to capture more of the value of the resources owned by citizens.

### Figure 7: Select tax revenues, 2017-2018 fiscal year




When it comes to individuals, Newfoundland and Labrador has the highest income inequality in Atlantic Canada.[65] For top income brackets, it has the lowest marginal tax rate across Atlantic Canada.[66] The personal income tax rate on the top income bracket could be increased. Also, a new bracket could be introduced for incomes over $1 million, with a higher rate and a requirement that some level of taxes be paid regardless of deductions, credits, and the like.[67]

Newfoundland and Labrador has introduced a climate plan that includes a carbon price, which is scheduled to increase annually in line with the federal carbon pricing requirement. It could accelerate the annual increase, as B.C. has done, and boost provincial revenues. This would also help to support electrification and increase electricity revenues.

These revenues could add tens of millions of dollars per year to the provincial treasury. Because the first three options noted above — reasonable electricity rates, energy efficiency, and electrification — raise hundreds of millions, these revenues are not needed to pay for Muskrat Falls. However, they would help to reduce inequality, and to achieve the province's carbon emission goals.

[65] Statistics Canada, Gini coefficients of adjusted market, total and after-tax income, Table: 11-10-0134-01, www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1110013401.

[66] Government of Canada, "Canadian income tax rates for individuals – current and previous years," canada.ca/en/revenue-agency/services/tax/individuals/frequently-asked-questions-individuals/canadian-income-tax-rates-individuals-current-previous-years.html. PEI also has a 10 per cent surtax on top earnings.

[67] See Common Front of Newfoundland and Labrador, "Submission to the Independent Tax Review Committee," September 25, 2018, wearenl.ca/wp-content/uploads/2018/12/Common-Front-NL-Tax-review-submission-Sept-25-.pdf, pp.18-21.

## Summing up the opportunities

As shown above, there are more balanced and innovative ways to pay for Muskrat Falls. The government can choose a path that is fairer, better for jobs and the economy, and would help to achieve the province's climate change goals. These include:

- Setting rates at the Atlantic average (electricity revenues of $313.4 million per year);
- Protecting consumers by aggressively supporting energy efficiency (average net tax revenues of $136 million per year);
- Rapid electrification of the province's buildings, industry, and transportation (electricity revenues averaging $200 million per year); and
- A range of other revenue measures — raising income tax rates for large corporations and top-bracket individuals to the Atlantic average, and accelerating carbon tax-and-rebate increases (tens of millions per year).

The first three items alone total $649 million. This, along with the $98.6 million in electricity revenues and cost savings identified by the government, add up to more than the government's projected 2021 costs of $725.9 million.

Moreover, this approach can pay for Muskrat Falls without cutting important infrastructure, programs and services, and laying off thousands of people. Instead it can create jobs, save money for consumers, and help achieve the province's climate change goals.

# 7. Conclusions

Muskrat Falls is costly, and the costs will need to be paid. That much is unavoidable. However, the impacts of that payment on the broader public, on the most vulnerable in the province, and on public servants, is a choice that is within the government's control.

The government can choose to make that payment through cuts to public infrastructure, programs and services. Its current plan for 2021 suggests that it will take an extreme position on rate mitigation, and rely on cuts to make up the difference of hundreds of millions of dollars.

However, the government has more balanced and innovative options available. It can make electricity rates more realistically reflect the cost of new generation by adopting the Atlantic average. It can more rapidly pursue energy efficiency, providing cost savings for electricity consumers, and building net economic activity, jobs, and tax revenues.

It can accelerate electrification of the province's buildings, industry, and transportation, boosting electricity revenues and reducing costly imports of fossil fuels. Efficiency and electrification will also help the province to achieve its carbon emissions goals.

Finally, although the above mechanisms would more than pay for Muskrat Falls, the government can raise tax rates for large corporations and wealthy individuals up to the Atlantic average to help reduce inequality, and can accelerate the scheduled carbon tax increases to help achieve its climate change goals.

In the end, the government will be making a political choice about how to pay for Muskrat Falls. Its hands are not tied. It needs to be honest and clear with the public about all of its options, the costs and benefits of those options, and the reason for its choice.