



# Creating Long-Term Value from the Churchill River for the People of Newfoundland and Labrador

Report by the Churchill River  
Independent Review Committee

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# 1. Executive Summary

This report assesses whether the December 12, 2024, Memorandum of Understanding (MOU) among Newfoundland and Labrador Hydro (NLH), Hydro-Québec (HQ), and Churchill Falls (Labrador) Corporation (CFLCo) regarding future commercial arrangements for hydro-electric power generation on the Churchill River is in the best long-term interest of the people of Newfoundland and Labrador (the “public interest”).

The Churchill Falls (CF) generating plant and the Churchill River in Labrador are among the most valuable infrastructure and natural assets in Canada. CF, with a capacity of 5,428 megawatts (MW) that generates 34 terawatt hours (TWh) of energy each year, is one of the largest single sources of low cost, low carbon, dispatchable, renewable power in Canada and the United States. The facility is jointly owned by NLH and HQ, the two shareholders of CFLCo. CF has been in continuous operation for almost 55 years, is debt free, and will continue to produce reliable power for the foreseeable future. In late 2041, when its renewed 1969 power purchase agreement (PPA) with HQ expires, and absent any new agreement, its energy will no longer be under contract, opening significant new opportunities for CFLCo and the province.

The MOU is a non-binding agreement that proposes to replace the existing 1969 Churchill Falls PPAs with new, 51-year PPAs. In addition, it outlines four projects (referred to as “the development projects”): the upgrade of and an expansion to the existing CF plant; developing a new 2,250 MW power generating plant at Gull Island (GI) that would sell power primarily to HQ under a 50-year PPA; and building new transmission lines in Newfoundland and Labrador and Québec.

The Independent Review Committee (IRC) finds that the MOU has important financial and economic benefits for the province in the period up until 2041, when the current Churchill Falls PPA expires. Beyond 2041, however, a significant limitation is that NLH’s restricted access to incremental CF power up to 2075 is likely to constrain long-run growth in energy-intensive industries such as mining and to hinder broader economic development. Other significant concerns about the MOU include problematic pricing and payment models, lack of NLH transmission access for CF power to export markets, the challenge of sustaining joint ventures between partners with divergent interests, and other commercial arrangements with associated risks. The IRC concludes that, despite the benefits, the MOU in its current form is not in the public interest. However, the Government of Newfoundland and Labrador (GNL) could make significant decisions, discussed in the IRC’s recommendations, that may ultimately allow NLH to work toward a revised agreement with HQ to serve the public interest.

The total financial benefits to the provincial treasury from the MOU over the 2025 to 2085 period are estimated to be \$36 billion in present value (PV in 2024 dollars, excluding estimated rate mitigation costs of \$5.4 billion PV). Out of the \$36 billion, \$9.2 billion (PV) will be received

before 2042 (HQ's payments to CFLCo will result in \$7.3 billion, NLH's \$1.8 billion).<sup>1</sup> Therefore, \$7.3 billion (PV) is the short-term financial benefit at risk to the province if the HQ CF PPA contemplated in the MOU is not implemented. Table 1 lists a summary of the financial benefits to the province of the major elements of the MOU. Appendix 4 contains a discussion of the discount rate used to produce the NPVs of the financial benefits.

**Table 1 – Summary of Financial Benefits to the Provincial Treasury from the MOU**

<b>Financial Benefits from MOU</b>	<b>2025–2041 NPV</b> (\$ million 2024 dollars)	<b>2042–2075 NPV</b> (\$ million 2024 dollars)	<b>TOTAL NPV</b> (\$ million 2024 dollars)
<b>Dividends, rents and royalties from:</b>			
HQ flowing through CFLCo	\$7,347	\$15,693	\$23,040
NLH flowing through CFLCo	1,818	5,236	7,054
NLH expired blocks flowing through CFLCo	0	1,173	1,173
<b>Total flow-through benefits from CFLCo</b>	<b>9,165</b>	<b>22,102</b>	<b>31,267</b>
CF Upgrade	0	0	0
CF Expansion	0	68	68
<b>Total CF/CFU/CFX</b>	<b>9,165</b>	<b>22,170</b>	<b>31,335</b>
Less estimated rate mitigation	(515)	(4,860)	(5,375)
<b>Net Benefits to Treasury from CF/CFU/CFX</b>	<b>8,650</b>	<b>17,310</b>	<b>25,960</b>
Gull Island Joint Venture (2025–2085)	394	3,731	4,125
NL Transmission	128	692	820
<b>NPV of Benefits from MOU</b>	<b>9,172</b>	<b>21,733</b>	<b>30,905</b>

Source: IRC analysis, NLH

The majority of the MOU's financial benefits are attributable to the proposed new CF PPAs, which have a PV to the provincial treasury of approximately \$31.2 billion over 51 years before estimated rate mitigation costs (see Appendix 6).

1 Differences in totals are due to rounding of numbers.

Prior to 2042, the proposed CF block price model is largely anchored on HQ's regulated, low electricity rates, and after 2041 on HQ's avoided replacement costs with only a small weight derived from external energy market prices. In the view of the IRC, the block price model has implementation risks because of its particularly complex structure. And due to significant back-loading of annual payments, financial benefits to the province are delayed, exposing GNL to inflation risk. The IRC concludes that a simpler price model could be more durable and easier to administer while still meeting the objective of fair value over time and bringing forward revenue payments to CFLCo.

The financial benefit to the provincial treasury of GI and the CF Upgrades and CF Expansion projects is much smaller (\$4.1 billion NPV) and, as the primary customer for GI power, HQ is the main beneficiary of these projects over 50 years. The PPAs for GI and the new developments are atypical of the electricity sector, featuring misaligned PPA and amortization terms and forced escalation of revenues, which lower the financial rate of return and create financial risks for shareholders. The IRC concludes these features are not in the public interest. The IRC also finds that alternative ownership, operating, and right-of-use models for Gull Island should be carefully evaluated to ensure that the province is the long-term beneficiary of the power produced by this asset.

The MOU's predicted economic benefits to the province, which arise from the growth of energy-intensive industries as a result of gaining access to greater supply volumes from Churchill Falls, are forecast to be substantial – but also limited. Over the 51-year term of the new CF PPA, mining and industrial sector expansion in Labrador West could contribute \$178 billion (in 2025 dollars) to the provincial gross domestic product (GDP) from the direct and spinoff economic stimuli. Approximately \$48 billion (in 2025 dollars) of this GDP benefit is forecast to occur from 2025 to 2041, during which NLH gains access to up to an extra 605 MW of existing CF capacity and 360 MW of new development projects capacity. In addition, the GDP impact associated with construction of Gull Island, the CF Expansion and Upgrades projects, and NLH's new transmission line is estimated to be approximately \$15 billion (in 2025 dollars).

A drawback of the MOU, however, is that NLH's access to existing and additional capacity from Churchill Falls and Gull Island in the period 2042 to 2075 is only 500 MW – equivalent to a growth rate less than 1% per annum – which is likely to constrain expansion of energy-intensive industries. Hence, although the MOU brings new financial value to the province (achieved from exporting CF power to Québec), there is at the same time a significant lost opportunity of potential economic benefits that would accrue from retaining more power in the province. In an alternative scenario, if the industrial sector were able to grow at a modestly higher rate after 2041 than forecast – dependent on NLH having greater access to Churchill River power – the total direct and spinoff GDP contribution is estimated to be potentially 65% greater (\$115 billion, 2025 dollars) than the economic benefit forecast under the MOU over the 2025 to 2075 period. Achieving economic growth benefits, however, is more complex and uncertain,

and requires more time than realizing financial value from exporting power. A key decision for GNL is thus defining the optimal balance between the financial versus the economic value that it wishes to achieve from the Churchill River. Table 2 summarizes the GDP and employment benefits estimated by the IRC and the GNL Department of Finance.

**Table 2 – Estimated Economic Impact of Iron Ore Mining Projects Enabled by the MOU (GDP Millions, 2025 Dollars, and Employment, Person-Years)**

	GDP (\$ Million 2025 )			Employment (Person-Years)		
	Total 2025–2075	Total 2025–2041	Average 2025–2075	Total 2025–2075	Total 2025–2041	Average 2025–2075
Construction Impact (Direct)	9,774	5,715	192	56,901	32,130	1,116
Construction Impact (Spinoff)	7,290	4,206	143	55,170	31,458	1,082
Production Impact (Direct)	109,780	25,659	2,153	115,380	22,177	2,262
Production Impact (Spinoff)	50,713	12,223	994	261,299	43,912	5,124
<b>Total</b>	<b>177,557</b>	<b>47,804</b>	<b>3,482</b>	<b>488,750</b>	<b>129,678</b>	<b>9,583</b>

Source: IRC analysis, GNL Department of Finance

The report also includes responses to the 15 points of consideration posed in the IRC's terms of reference. The report concludes with the IRC's recommendations for GNL as it considers how the people of Newfoundland and Labrador and future generations should benefit from the full potential of the Churchill River:

1. GNL should determine, based on a comprehensive analysis of long-run economic development options, the extent to which power generation from the Churchill River should provide financial versus economic value to the province over time.
2. GNL should sanction and support NLH construction of new transmission line capacity between Churchill Falls and Labrador West in order to enable economic growth of the province's energy-intensive industries.
3. GNL and NLH should remain committed to the objective of building respectful relationships with and consulting Indigenous communities in connection with future developments on the Churchill River and in Labrador.
4. GNL should rigorously evaluate alternative ownership, operating, and right-of-use models for new hydroelectric generation at Gull Island that are consistent with the province being the principal beneficiary of the financial and economic value created.
5. GNL and NLH should prepare for future negotiations with HQ by preparing a fully articulated negotiation strategy and best-practice governance process.

## 2. The 2024 Memorandum of Understanding

### Background

In May 2022, the Government of Newfoundland and Labrador formed the Churchill River Management Expert Panel (“the 2041 Panel”), responding to a key recommendation from the 2020 Report of the Commission of Inquiry Respecting the Muskrat Falls Project:

In preparation for 2041, government should appoint an expert panel with a mandate to determine the best approach to be taken by the Province in its attempt to ensure maximum long-term benefits from the Churchill Falls generating station and other potential generation sites on the Churchill River. This panel should be properly funded, non-political and include experts who are best able to assist government in preparing for the negotiations with Québec (Volume 1, p. 62).

The 2041 Panel’s mandate was to develop and recommend approaches that would secure long-term benefits from the Churchill Falls facility, with particular focus on preparing the government’s position for 2041, when the 1969 Churchill Falls Power Contract with Hydro-Québec expires. The Panel was charged with building a thorough understanding of the existing contract and providing strategic advice on the future management of the Churchill River. The government recognized that meaningful preparation had to begin well in advance of expiry so that the full range of options could be comprehensively evaluated.

In the course of its work, the 2041 Panel examined three major, non-mutually exclusive avenues for maximizing the value of the assets: expand in-province sales to support electrification and the growth of new and existing industries; increase sales into external export markets; and restructure the sales arrangement with Hydro-Québec. In 2023, the 2041 Panel concluded its review and delivered its strategic advice to GNL, providing the foundation for moving toward negotiations over the post-2041 future of the Churchill River. The 2041 Panel’s findings and recommendations to government have remained confidential, but the IRC found their work to be of good quality.

Soon after the 2041 Panel completed its report, the government appointed a three-person negotiating team to build on the Panel’s recommendations and to prepare for negotiations with Hydro-Québec. The team consisted of Karl Smith (Chair), a former senior executive at Fortis; Jennifer Williams, CEO of Newfoundland and Labrador Hydro; and Denis Mahoney, K.C., Deputy Minister of Justice and Public Safety.

In April 2023, the government and the board of directors of NLH approved a principles-based mandate for the negotiating team to engage with Hydro-Québec in order to replace the existing 1969 Churchill Falls Power Contract with a new agreement that would maximize the long-term value of the Churchill Falls facility for the province. In June 2024, the government and NLH board approved a second mandate that authorized the team to negotiate over the development of Gull Island, a core priority for Hydro-Québec.

## **Overview**

On December 12, 2024, the Government of Newfoundland and Labrador publicly announced a “new energy partnership” among the provinces of Newfoundland and Labrador and Québec and the Innu Nation. Newfoundland and Labrador Hydro (NLH), Hydro-Québec (HQ), and Churchill Falls (Labrador) Corporation Limited (CFLCo), a corporation owned by NLH (65.8%) and HQ (34.2%), had signed a Memorandum of Understanding (MOU) that set out key principles for replacing the existing 1969 Churchill Falls Power Contract (as renewed in 2016) and for developing new hydroelectric infrastructure assets, including a new hydroelectric facility at Gull Island on the Churchill River, expansion and upgrades of the existing Churchill Falls facility, and new transmission lines.

The MOU is a framework agreement: it leaves many terms and conditions to be negotiated in a series of future Definitive Agreements, which will become legally binding when signed. The MOU itself is not legally binding, except in regard to certain terms covering confidentiality obligations and the work product resulting from development studies.

The MOU proposes two significant changes for the Churchill Falls plant and for CFLCo.

First, it will terminate the existing 1969 Churchill Falls Power Contract between HQ and CFLCo (which is due to continue until 2041) and replace it with a new 51-year power purchase agreement in which Churchill Falls power pricing is not fixed but variable, based on a basket of external energy cost and market price indices. The MOU specifies that the target value of HQ’s payments for power to CFLCo over the entire term of the new PPA will have a net present value (in 2024 dollars) of \$33.8 billion. The MOU also includes the series of annual payments by HQ in nominal dollars which, when discounted at the agreed discount rate of 5.822% (see Appendix 4), will equal the \$33.8 billion amount. Annual volume allocations of CF output to NLH and HQ are specified: NLH will have access to up to 1,630 MW (approximately 30%) of existing CF capacity by 2075, while HQ will have access to 3,660 MW by 2075. Under the existing contract, NLH has access to 525 MW. There is no automatic renewal right for the PPA.

Second, the MOU envisions improvement and expansion of the current Churchill Falls plant in two projects:

1. CF Upgrades project (CFU): An upgrade of the turbine generators to increase capacity by approximately 550 MW
2. CF Expansion project (CFX): The development of a new powerhouse next to the existing facility to increase the installed capacity by approximately 1,100 MW

NLH will have access to 135 MW of this power. The power produced by the two projects will be sold under 50- or 51-year power purchase agreements. The MOU states that PPAs should deliver a 2% escalation of revenues per annum and that project assets should be depreciated over 51 years (CFU) and 65 years (CFX). Any cost over-runs for the CF Upgrades project will be borne by the shareholders of CFLCo on a proportional (pro-rata) basis. Cost over-runs for the CF Expansion project will be borne by the off-takers (primarily HQ) under the cost-plus power purchase agreement.

The other major element of the MOU is an agreement to form a new joint venture corporation between NLH and HQ, owning 60% and 40% of shares, respectively, to develop, operate and own a Gull Island plant that will have a power generation capacity of 2,250 MW. HQ will pay NLH a development fee of \$3.5 billion (in 2024 dollars), of which \$1.3 billion will be paid unconditionally. The balance (\$2.2 billion) will be paid to NLH conditionally, subject to achieving certain milestones relating to the Gull Island project and the CF Expansion project. HQ will purchase 90% of Gull Island power output, with NLH having access to up to 10% of its output. NLH will have access to 360 MW of total capacity from the Gull Island and the CF Upgrades and Expansion projects. Under the MOU, HQ will have responsibility for project construction and will provide a completion guarantee if required. Any cost over-runs will ultimately be borne by the off-takers of the GI PPAs. Power will be sold under a 50-year PPA with the same cost-plus pricing conditions as the CF Upgrades and CF Expansion PPAs.

When completed, these development projects will bring the combined capacity of the Churchill Falls and the Gull Island facilities to approximately 9,328 MW, of which 9,190 MW will be delivered to the off-takers, with a minimum of 7,200 MW for HQ and a maximum of 1,990 MW for NLH. Additionally, NLH and HQ will each construct respective segments of a new transmission line in NL and QC that will connect the Gull Island plant to Québec's transmission system. Transmission costs will be recovered through cost-plus pricing charged to off-takers.

The parties to the MOU confirmed a commitment to the objective of building respectful relationships with and consulting Indigenous communities in connection to the projects. The IRC received submissions from several Indigenous groups and affirms the importance of the parties respectfully engaging and consulting with Indigenous groups.

The parties to the MOU also agree to amend and restate the existing Water Management Agreement, to optimize water management on the entire Churchill River, and to modernize the governance arrangements for CFLCo.

The MOU can be read in full online at <https://www.OurChapter.ca/>.

### **The Churchill River Independent Review Committee Inquiry Process**

On December 15, 2025, the Government of Newfoundland and Labrador established an official inquiry into the 2024 Memorandum of Understanding and appointed the Churchill River Independent Review Committee (IRC), consisting of three independent panel members (Chris Huskison, Chairperson, Dr. Guy Holburn and Michael Wilson). Appendix 1 contains the Order in Council outlining the IRC's terms of reference. Appendix 2 provides the committee members' biographies.

The core mandate of the IRC was to determine whether the 2024 Memorandum of Understanding is in the best long-term interest of the people of the province. The IRC was tasked with delivering a final report to government by April 30, 2026. In conducting its work, the IRC gathered written information and evidence from NLH, NLH's expert advisors, and government (employees and elected officials). It also interviewed a wide range of stakeholders, and it invited public submissions through the IRC's website portal. More than 350 submissions were provided by individuals, elected officials, Indigenous groups, and industrial representatives. In all, the IRC received and evaluated thousands of pages of documents. To assist in its work, the IRC retained external legal counsel, a full-time analyst, an editor, and administrative support.

This next section of the report presents the IRC's evaluation of the MOU's proposals for the new Churchill Falls PPA and each of the proposed development projects.

### 3. Evaluation of the Memorandum of Understanding

The MOU is the outcome of negotiations between NLH and HQ that fundamentally seek to create and capture value—financial, economic, social and environmental—from the hydroelectric power generation potential of the Churchill River. This section assesses the benefits and risks associated with each of the five major elements in the MOU: the Churchill Falls power purchase agreement, the Churchill Falls Upgrades, the Churchill Falls Expansion, Gull Island, and NL transmission assets. It also reviews the associated corporate governance arrangements, which are central to how organizations operate, invest, and create long-term value.

#### 3.1 Churchill Falls Power Purchase Agreement

In the MOU, CFLCo, HQ, and NLH have agreed to terminate all existing PPAs and replace them with new long-term PPAs in respect of volumes of power from the existing CF plant, each with a term of 51 years (2025 to 2075). Appendix 3 discusses the existing PPAs and the history of Churchill Falls.

##### Financial Value

Newfoundland and Labrador Hydro and Hydro-Québec negotiated a target present value for HQ's payments to CFLCo in a new CF PPA that extends to 2075 (the "contract term"). The target value amount is based on agreed annual energy volumes and an agreed schedule of target nominal payments. The total target present value agreed in the negotiations is \$33.8 billion (2024 dollars).

Based on NLH's 65.8% ownership interest in CFLCo, the Newfoundland and Labrador provincial treasury is forecast to receive approximately \$23 billion (PV) in flow-through benefits from HQ's payments to CFLCo. Of that \$23 billion, approximately \$7.3 billion is to be received during the 2025 to 2041 period and equates to a forecast levelized cost of energy of 3.8 ¢/kWh. This amount may be interpreted as NLH's share of the total residual value for HQ of the existing PPA (in which the price HQ pays for power is significantly lower) over the remaining 17 years of its term (2025 to 2041). The remaining \$15.7 billion (paid from 2042 to 2075) equates to a forecast levelized cost of energy of 16.7 ¢/kWh, which is considered to be similar to HQ's estimated replacement cost for power with similar attributes to CF.

In addition, the GNL treasury is forecast to receive financial benefits from NLH of approximately \$8.2 billion (PV), prior to rate mitigation costs, that result from the new CF NLH PPA. Thus, the combined forecast total financial benefits to the GNL treasury related to new CF PPA arrangements is approximately \$31.2 billion (PV). This forecast does not include the cost of rate mitigation (estimated by the IRC to be approximately \$5.4 billion in PV) or any

negative impact the payments may have on the province's entitlement to federal equalization payments.

While these proposed Churchill Falls PPA arrangements bring significant new financial benefits to the province, they also raise a number of concerns, including the pricing and payment framework for the power, Newfoundland and Labrador's access to Churchill Falls energy, and the governance of CFLCo.

### **Pricing of Churchill Falls Power**

The MOU sets out a unique, flexible block-pricing framework for Churchill Falls power. Rather than stipulating a fixed price (as did the 1969 contract), prices are intended to adjust over time in accordance with a basket of external energy cost and price indices, the largest block of which has a proposed adjustment for Consumer Price Index inflation to protect real values over the term of the new PPAs.

In the opinion of the IRC, there are several limitations with the pricing model that should be addressed in any future negotiations:

#### **1. Block-pricing model design**

The proposed block-pricing mechanism places significant weight on both Hydro-Québec's regulated electricity rates and Hydro-Québec's replacement energy cost, with minimal weight on broader energy market prices. This arrangement increases the importance of including robust protections in the pricing terms to buffer against potential structural distortions of Québec-based pricing. The proposed structure limits the extent to which pricing for Churchill Falls power captures evolving drivers of market value (as an example, Hydro-Québec recently proposed a new electricity rate for data centres, which is approximately double the rate for large industrial customers). As a result, and particularly after 2041, prices for CF power will be more tightly linked to HQ's avoided replacement cost than to broader market value.

#### **2. Timing of payments**

The annual nominal payment schedule (Schedule G in the MOU) reflects highly variable and steeply increasing nominal prices for CF power over time. GNL-published prices on the OurChapter.ca website indicate prices for power rising from 1.6 ¢/kWh in 2025 to 37.2 ¢/kWh in 2075. This profile creates two related challenges:

- Back-weighting of the payment schedule (i.e., specifying higher nominal payments later in the PPA) delays financial benefits and exposes the province to future inflation risks. It also exposes the province to

operational risks associated with an aging plant in the later years of the PPA's term.

- If PPA prices materially exceed market prices in later years, they may discourage industrial consumption and economic development and/or result in significant rate mitigation costs that must be borne by taxpayers.

### **3. Complexity and implementation**

Implementing the Schedule F principles-based block-pricing model will be particularly complex and will require detailed specification and negotiation. Implementing the pricing model will further be complicated by attempting to adhere to the Schedule G annual nominal payment amounts. While the MOU stipulates the agreed target present value of HQ's payments - \$33.8 billion - it does not discuss potential future variability in that amount that may arise from future realization of the energy cost and price indices, which creates the risk that future payments could be higher or lower than \$33.8 billion. The degree of price risk each party is willing to tolerate remains to be negotiated and it contributes to further complexity in the final PPA structure. The MOU also does not specify the pricing for recaptured power and the expiring blocks, which remain to be negotiated.

### **4. Transmission access**

In principle, full market value for Churchill Falls power could be realized if CFLCo were able to wheel power through Hydro-Québec's transmission system to external markets. Such access was not negotiated as part of the MOU. In addition, if NLH does not use recaptured power within this province, HQ is able to purchase unused volumes on terms to be agreed upon at a later date. This situation restricts NLH's ability to both contract directly with external customers and capture export pricing.

Due to the overall complexity and uniqueness of the block-pricing approach, there is an increased risk that the final terms will contain unforeseen gaps and that disputes will occur during the PPA term. In the opinion of the IRC, a simpler pricing model may be more durable and easier to administer while still meeting the objective of fair value over time. In addition, the IRC considers the profile of HQ's Schedule G nominal payment amounts is not reasonable and creates financial risks for GNL.

### **Economic Benefits of Churchill Falls Power**

Churchill Falls power is among the lowest cost, reliable, emissions-free, dispatchable electricity resources in Canada and therefore has strong potential to catalyze private investment in energy-intensive sectors.

A key benefit of the MOU is that it increases NLH's allocation of power from the existing Churchill Falls facility by up to 605 MW before 2041, more than doubling the current amount it accesses (525 MW). This represents an average increase for NLH in existing CF capacity of 4.9% per year over the 2025 to 2041 period. The IRC understands that this additional 605 MW would be fully utilized before 2041 and that it could support significant economic development, including expansion of the mining sector in Labrador, which is an important contributor to provincial GDP, taxes and royalties, and employment. In addition, the MOU provides NLH with access to 360 MW from the new development projects from 2035 to 2075.

The economic benefits to the province in terms of GDP and jobs from enhanced industrial growth in Labrador, enabled by access to additional CF power, are estimated to be substantial: as the report section on Economic Growth Benefits describes in more detail, provincial GDP could increase by a total of \$48 billion (present value) over the 2025 to 2041 period and by \$130 billion (present value) over the 2042 to 2075 period as a result of expansion of the Labrador mining sector, which is currently unable to grow due to power constraints.

However, the IRC has several concerns related to the long-term adequacy and certainty of NLH's access to power from Churchill Falls:

### **1. Allocation of CF capacity after 2041**

The proposed increase in NLH's access to power from CF and the new development projects after 2041 is only 500 MW (two 250 MW expiring blocks, which become available in 2051 and 2061). This is equivalent to an average growth rate in NLH volumes of 0.9% per year from 2042 to 2075.<sup>2</sup> Relative to the pre-2042 period (when NLH's access grows more than six times faster), this could constrain further development of energy-intensive industries in Labrador and limit their contribution to the provincial economy. In addition, under the proposed schedule E in the MOU, no new CF power becomes available to NLH over the 15-year period from 2035 through 2050. This long gap may create a binding constraint on private investment during that period, particularly for projects that require firm power commitments and have long development lead times. There is thus a lost opportunity for greater economic development in the province, which the IRC estimates could be significant (see section on Economic Growth Benefits).

### **2. Allocation risk**

NLH's access to additional CF power could be materially reduced below the 1,105 MW otherwise allocated by the MOU, if Gull Island and the CF Expansion projects are not completed (per Schedule I, except for reasons

<sup>2</sup> This is calculated as the compound annual growth rate over the 33-year period from 2042 to 2075. NLH will have access to up to 1,490 MW of capacity in 2042 from the existing CF facility and new development projects, and up to 1,990 MW in 2075.

specified in Schedule J). In that scenario, NLH will gain access to only an additional 300 MW of CF power between 2031 and 2075—a reduction of more than 70% relative to the full 1,105 MW of additional existing CF power posited in Schedule E. Given the potential negative economic consequences for the province of this outcome, the IRC considers that the downward adjustment provision of Schedule I is an unacceptable risk allocation for NLH.

### **3. Long-term provincial economic development plan**

While the MOU proposes that NLH will have access to a maximum of 30% of the power output of the existing Churchill Falls facility by 2061, the IRC could not find evidence of a comprehensive economic analysis establishing whether that amount is an optimal long-term share for maximizing provincial economic development. Determining what is an appropriate long-term amount of power supply requires a provincial long-term plan and strategy that balances Churchill Falls' financial value (from export revenues) with its economic value (enabling industrial development, jobs, and enhanced GDP).

### **4. Contract duration**

The term of the proposed new Churchill Falls PPA (51 years) effectively extends the current PPA by about 34 years, until 2075. Within the electricity sector, however, it is not uncommon for PPAs to be shorter than 25 years (unless driven by financing needs). Given the difficulty of making accurate long-term demand forecasts—particularly in light of uncertainties around AI and data centres, electrification pathways, geopolitics/national security policy, and emerging energy technologies—the IRC finds that a shorter contract term for the CF PPAs than contemplated in the MOU would offer meaningful advantages to NLH and the province.

## **Governance of CFLCo**

CFLCo's governance is currently defined by a Shareholders' Agreement that remains in effect until 2041. Under this arrangement, NLH is the majority shareholder (65.8%) and appoints six of eight directors to the board of CFLCo. HQ (the minority shareholder, owning 34.2%) appoints the remaining two directors. Despite NLH's board majority, HQ retains significant decision control through "special majority" approval requirements for certain major matters (in which approval is required from at least one NLH director and one HQ director). The major decisions include items such as capital upgrades, budgets, debt financing, and dividend policy. As a result, HQ can effectively control material strategic or financial decisions at the board of CFLCo.

Such effective veto rights can be problematic when a shareholder has a conflict of interest—particularly where that shareholder is also a major customer of the corporation. In CFLCo's case, HQ is both a significant minority shareholder and the dominant purchaser of Churchill Falls power under the PPA framework; this creates an inherent risk that governance decisions could be influenced by off-taker interests.

The IRC also notes that HQ can exert significant operational influence related to its control over water flows on the Churchill River, which can affect optimization of the hydroelectric facility at Muskrat Falls. This interdependency heightens the importance of clear governance, transparency, and conflict-of-interest safeguards being included in any future agreements for CFLCo.

After 2041 and the expiry of the Shareholders' Agreement, HQ's special majority decision rights will be eliminated (absent any agreement otherwise), and NLH will be able to appoint all CFLCo board directors. It will then have greater control over the strategic direction and functioning of CFLCo than it currently does. HQ will remain a shareholder and its rights will be protected under the provisions of By-Law 28 and the Canada Business Corporations Act, which prohibits directors from discriminating for or against the interests of specific shareholders in their corporate decision-making. Briefly, By-Law 28 is an agreement for future governance arrangements for CFLCo that will come into effect in 2041 upon termination of the Shareholders' Agreement and was agreed to by NLH and HQ as an outcome of negotiations in 1999. A summary of By-Law 28 is provided in Appendix 3 of this report. After 2041, as long as HQ remains the owner of more than 25% of the shares of CFLCo, certain important corporate decisions will continue to require its approval.

The IRC concludes that the governance arrangements for CFLCo that will apply after 2041, as specified in By-Law 28, provide the appropriate balance of majority and minority shareholder control and the appropriate protection of all shareholder rights.

## **Summary**

Overall, the proposed new CF PPA offers substantial financial benefits to the provincial treasury over the 51-year term, estimated at \$26 billion (2024 dollars) after rate mitigation costs. The near-term increase in NLH's access to Churchill Falls power is likely to catalyze energy-intensive industrial development, bringing new economic wealth and jobs to the province. However, there are important qualifications and risks: the block-pricing model, while unique and flexible, has significant implementation risk and is limited by the deferred payment schedule and by its anchor on regulated rates and replacement costs in Québec rather than on broader energy market prices. In addition, the minimal growth in CF volume allocation for NLH after 2041 and the extended period with no new additional allocation, represent constraints on long-term economic growth and development. The potential downward adjustment of NLH's CF power allocation is an additional risk to achieving economic benefits from Churchill Falls.

### 3.2 The Churchill Falls Development Projects

Two distinct development projects are proposed for Churchill Falls – an upgrade of the existing facility and an expansion to it. The CF Upgrades project (CFU) can be characterized as both maintenance and the replacing and upgrading of turbine generators. For an estimated cost of \$1.9 billion, it will replace the existing 11 turbine generator units, which is expected to increase the plant's capacity by 550 MW. The upgraded units will come into production from 2028 through 2038 and will produce an incremental 0.94 TWh per year by 2038. The new turbines are expected to deliver 10% more power, use 7% more water flow, and improve the efficiency of the plant.

The second project, the CF Expansion (CFX), adds two more turbine generator units in a separate powerhouse adjacent to the current facility, giving the plant a total of 13 generators. The \$4.6 billion CFX project expands the existing Churchill Falls power generating facility and is expected to increase the installed capacity of the Churchill Falls complex by approximately 1,100 MW, producing an additional 0.35 TWh of energy per year.

Subject to additional technical and environmental studies to be carried out by NLH, HQ, and CFLCo, as well as to input provided by relevant key interested parties and governmental authorities, it is currently anticipated that the CF Expansion project will involve the following:

- an underground powerhouse containing two turbine generators of approximately 550 MW each, to be located around 250 metres to the west of the existing Churchill Falls powerhouse. These units will be fed by two individual penstocks using the water in the existing Smallwood Reservoir on the East Forebay. Turbined water will return to the Churchill River through a surge chamber (located downstream of the powerhouse) and a tailrace tunnel
- a breach in an existing dyke to create the approach channel, and construction of a new dyke
- a workers' camp and other temporary or permanent infrastructure in Labrador

The combined new capacity of the Churchill Falls plant will be 7,078 MW, producing 35.8 TWh of energy per year, making CF the largest hydroelectric plant in Canada.

While the CFU project is an upgrade and life extension project, which is beneficial for the plant's owners and off-takers, the CFX project is primarily a capacity addition project that will produce little incremental energy and, as such, is more beneficial to HQ. NLH will have access to 135 MW of power from the CF developments at an equivalent capacity factor to that produced by Gull Island, expected to be approximately 0.72 TWh per year. This is approximately 8% of the capacity of these projects.

## Financial Value

Based on HQ's and NLH's PPA payments to CFLCo, the GNL provincial treasury is forecast to receive \$68 million from CFX and \$0 from CFU (PVs) over the PPA periods. These benefits are small because of the funding structure: substantially all of the revenue is dedicated to repaying debt and debt servicing costs rather than providing dividends to shareholders.

CFU produces \$0 financial benefit because it was agreed in the MOU that the PPA for this project would be based on cost recovery only. CFX has a small financial benefit because it was agreed in the MOU that it, too, may be financed with 100% debt but also provide a return on deemed equity of 25% of the capital investment. The parties subsequently agreed that the deemed equity return would be the spread between the debt cost and the 8% to 9% return on deemed equity. The financial return is negligible in relation to the total cost of \$6.5 billion for the two CF development projects.

While the CF development projects provide additional capacity and marginal energy additions to the Churchill Falls facility, they also raise a number of concerns related to pricing, access to power, financing, capacity and energy, technical risk, and amortization risk.

## Power Pricing

The MOU includes separate PPAs for the CFU and CFX projects. It states that these PPAs are required to include cost-of-service ('cost-plus') pricing terms projected to deliver a 2% per annum escalation of revenues over the term. GNL required this feature to be included during the latter stages of MOU negotiations. Expert advisors expressed concerns to NLH and in written comments to the IRC about this revenue model:

The 2% price escalation clause in the cost-of-service models ('Escalating Cost-of-service') for new developments is a construct that is similar to regulated utility / rate base models ('Traditional Cost-of-service') with a forced upward escalation curve while maintaining a direct cost passthrough of costs to the off-taker.

Relative to the Traditional Cost-of-service model, the Escalating Cost-of-service model requires that equity and / or debt distributions are back-dated [deferred] in order to maintain 2% price escalation. Subject to the definitive agreements, the Escalating Cost-of-service model could provide higher nominal equity dividends given time-weighting of back-ended [deferred] payments, which requires larger dividends to achieve the same IRR / ROE as Traditional Cost-of-service model.

Given that nominal equity dividends are back-ended [deferred] payments, this may lead to lost opportunity cost of re-investment of those dividends relative to the Traditional Cost-of-service model which has front-loaded equity dividends with a declining energy price. The 2% price escalation clause in Escalating Cost-of-service model has a direct consequence on the financing as the cash flow generated in the early years of operations may produce debt service coverage ratios [(DSCR)] that could be below minimum DSCR required by lenders to provide debt financing. This could be solved with cash-funded reserve accounts to cover initial period DSCR shortfalls, but it is important to keep these shortfalls limited to the first 1-2 years. There may also be an impact on financing pricing and market appetite.

For CFX there is a mismatch between the 50-year contract and the 65-year agreed amortization that along with the 2% escalating price will leave substantial residual unpaid cost at the end of the contract.

For the CF Expansion project, there is a mismatch between the 50-year PPA term and the 65-year agreed amortization period. This will leave substantial residual unrecovered costs at the end of the PPA term. Due to the forced 2% escalating revenue requirement, CFX will have a cash flow deficiency and unpaid debt, dividends, and equity at the end of the PPA term, which will burden CFLCo. Consequent results, on the one hand, are an escalating revenue and price, and on the other a lower financial return and financing challenges—as well as a higher cost of financing because revenues are deferred. Receiving revenue later in the PPA term increases the risk to NLH, the majority owner of CFLCo.

### **NLH Power Allocations**

Under Schedule E in the MOU, NLH will be allocated access to an additional 1,105 MW of existing Churchill Falls capacity by 2061. However, Schedule I (“Downward Adjustments to Volume Allocations”) provides for a set of possible reductions to NLH’s power allocations from Churchill Falls if the CFX and/or Gull Island projects are not built or commissioned. A series of mitigating circumstances to these reductions are provided in Schedule J (“Exemptions to Downward Adjustments to Volume Allocations”). If CFX and Gull Island are not built or commissioned, NLH’s additional volumes could potentially be reduced to 300 MW, a reduction that would be detrimental to the growth of the industrial sector in Labrador West and have a negative effect on the NL economy.

### **Financing**

NLH and HQ agreed that the Churchill Falls Developments will be financed primarily using CFLCo debt. As stated above in the quote from the expert advisors, financing these projects

when they feature the forced 2% escalating revenue model will be more difficult and costly than if a traditional utility cost-of-service revenue model is used.

The debt associated with financing these projects, if financed on the CF balance sheet, will reduce CFLCo's capacity to pay additional dividends when the Churchill Falls PPA renewal contracts are established. In addition, based on information received from NLH's expert advisors, the 2% escalating cost-of-service pricing will leave a debt and deemed equity residual value in CFLCo at the end of 50 years of \$5.6 billion (nominal, \$0.2 billion NPV) for CFX.

In the opinion of the IRC, a traditional utility cost-of-service revenue model would be more appropriate for the Churchill Falls development projects as it would reduce financing risk and costs, a benefit to the shareholders.

### **Capacity vs Energy**

The CF development projects add a total of 1,650 MW of new capacity but produce only a total of 1.29 TWh of energy per year, which is a capacity factor of just under 9%—whereas the capacity factor of the CF plant is approximately 70%, which meets the energy needs for industrial customers in Labrador. These investments are therefore primarily useful to Hydro-Québec, but they put a burden on CFLCo's financial structure.

### **Technical Risk**

Comprehensive technical and environmental studies are required before the parties can decide to sanction these projects. CFX will see a new powerhouse being constructed within 250 metres of the existing plant, which may create risk for the existing plant. As well, the expansion adds challenges to managing water on the river and must be carefully planned. These decisions should remain under the control of NLH, as majority owner of the CF plant and 100% owner of the downriver Muskrat Falls plant, to ensure that these facilities are fully protected from possible negative consequences.

### **Summary**

The CFU and CFX projects are essentially enhancements to the facility at Churchill Falls. CFU sustains the existing CF facility and extends its operating lifespan; by contrast, CFX is a relatively complex, technically challenging and low financial value addition to the plant. In the opinion of the IRC, these projects add considerable complexity to the MOU. These projects primarily benefit Hydro-Québec by improving reliability and power supply at a relatively low cost of capacity (compared to the cost of Gull Island), while creating financial risk for CFLCo, of which NLH is the majority shareholder. They could instead be negotiated separately from the MOU as a matter of CFLCo's long-term business asset and capital planning.

### 3.3 The Gull Island Joint Venture (GIJV)

Gull Island is one of the best undeveloped hydro-electric power generation opportunities on the continent. Similar to Churchill Falls, it would be a legacy development for the people of NL and provide future prosperity for the province.

Construction and operation of the Gull Island power generating facility, downstream from Churchill Falls and upriver from Muskrat Falls, is expected to provide an installed capacity of approximately 2,250 MW and produce approximately 12 TWh of energy per year.

Subject to additional technical and environmental studies and to input from relevant stakeholders, it is currently anticipated that the Gull Island Project will involve:

- a powerhouse containing at least five turbine generator units
- a new dam
- a reservoir, expected to be around 230 kilometres long
- a workers' camp and other temporary or permanent infrastructure in Labrador

Hydro-Québec is an experienced designer and builder of large-scale hydroelectric facilities, which should facilitate a successful project. Under the MOU, NLH has access to 10% of Gull Island power and energy. This amounts to 225 MW of power at GI's final capacity factor.

#### Financial Value

Based on NLH's 60% ownership of Gull Island and on PPA revenue payments that will be made by both HQ and NLH to the GIJV, the GNL provincial treasury is forecast to receive \$4.1 billion (NPV) in financial benefits from the Gull Island corporation in the years leading to 2085.

As with the CF development projects, GNL required that the revenue model for the GI PPAs deliver a projected 2% escalation in revenues each year. GNL also required that the PPA term be 50 years, which was not aligned with the agreed 65-year amortization period. These requirements will create the same challenges as those outlined above in the CF Developments section, magnified by Gull Island's much larger cost and long construction period. As a result of the 2% price escalation clause, the revenue collected over the 50-year contract will have a value of \$15.8 billion (PV). At the end of the 50-year PPA, due to both the 2% revenue escalation and misaligned 65-year amortization and PPA periods, there will be a debt, dividend, and equity residual obligation of the Gull Island Joint Venture of \$30.8 billion (nominal) or \$1.0 billion (PV, 2024 dollars).

Evidence presented to the IRC by NLH's expert advisors indicated that for the first 45 years of the PPA period, the off-takers (minimum 90% HQ) will not pay the true full cost of Gull Island

power, creating a revenue shortfall that results in unpaid debt, dividends and equity at the end of the PPA. At the end of the PPA, there will be an accumulated balance of \$20.9 billion (nominal) of unpaid dividends to the shareholders, of which NLH will be owed \$12.5 billion and HQ will be owed \$8.4 billion. NLH has indicated that future energy market prices may not support the subsequent Gull Island PPA (after 2085) with pricing at the level needed to repay outstanding debts and unpaid accumulated dividends to the shareholders. A risk is that when the GIJV needs to negotiate the post-2085 PPA in the future, unless it has transmission access to external markets, GIJV may have the similar, weak bargaining position as CFLCo had with the initial 1969 CF PPA (when CFLCo was burdened with debt and financial obligations).

Gull Island is a valuable opportunity for the province, and the MOU sets the stage for realizing its development. But the proposed commercial arrangements for its financing, ownership structure, and development fee, plus the possibility of transmission congestion, raise a number of significant concerns.

### **Construction Cost and Financing**

It is currently expected that the Gull Island project will cost between \$15 and \$25 billion to build, although a P85 estimate has not yet been completed. Construction of Gull Island will be led by HQ which has considerable experience in large-scale hydroelectric construction projects. HQ will bear the majority of the risk of cost over-runs as the primary off-taker under the Gull Island PPA, though NLH bears some of this risk as the minority off-taker. There is additional risk to the shareholders of the GIJV because approximately 23% of construction costs and any cost over-runs (on a nominal basis) will need to be recovered by a subsequent PPA after 2085, when NLH may be purchasing a larger percentage of GI capacity.

The parties have agreed to finance the project on a 25% equity/75% debt basis. The debt associated with project financing is intended to be secured by the asset itself and by the contracts with the off-takers—primarily HQ. As the comments from the expert advisors quoted above reveal, using the 2% escalating cost-of-service model will make financing Gull Island more difficult and more costly than if a traditional utility cost-of-service revenue model was used. The combination of the misaligned amortization and PPA periods and the proposed pricing model leaves unpaid debt, dividend, and equity balances at the end of the 50-year PPA contract.

In the opinion of the IRC, if a cost-based revenue model is used for Gull Island, a traditional utility cost-of-service approach would be more beneficial to the shareholders and off-takers because it would lower financing costs, risks, and cost of energy. In addition, if NLH wished to access more power in the future from Gull Island, a traditional utility cost-of-service model would lead to significantly lower prices for NLH at that time.

## **NLH Power Allocations**

Under Schedule E in the MOU, NLH will be allocated access to an additional 1,105 MW of existing Churchill Falls capacity by 2061. However, Schedule I (“Downward Adjustments to Volume Allocations”) provides for a set of possible reductions to NLH’s power allocations from Churchill Falls if the CFX and/or Gull Island projects are not built or commissioned. A series of mitigating circumstances to these reductions are provided in Schedule J (“Exemptions to Downward Adjustments to Volume Allocations”). If CFX and Gull Island are not built or commissioned, NLH’s additional volumes could potentially be reduced to 300 MW, a reduction that would be detrimental to the growth of the industrial sector in Labrador West and have a negative effect on the NL economy.

## **Development and Exclusivity Fee**

Hydro-Québec will pay NLH a development fee of \$3.5 billion for the right to develop Gull Island. The amount of the fee represents a share of the value that HQ gains by accessing Gull Island power rather than building or purchasing alternative sources of energy with similar attributes, which are estimated to be more costly on a per unit-basis than Gull Island power. In accordance with the MOU, NLH has committed to use all or part of the \$3.5 billion development fee as its portion of the equity investment in the Gull Island Joint Venture. The agreement provides that NLH’s 60% equity contribution to the Gull Island Joint Venture will be capped at \$3.5 billion without any further dilution.

The cost saving to HQ from developing Gull Island rather than developing other, more costly projects is influenced in part by two factors: the pricing mechanism for the power and the construction cost of the project. Changing from a 2% escalating revenue cost-of-service model to a traditional cost-of-service model would reduce the levelized cost of energy from Gull Island, which would increase the cost saving. Second, refining the P85 estimate of the construction cost would narrow the range of forecast costs, thereby also updating the potential cost saving of Gull Island relative to alternatives.

Based on evidence the IRC reviewed about HQ’s alternative costs of energy supply should Gull Island not be developed, the IRC finds that the development fee of \$3.5 billion is a low share for NLH of the total cost savings that HQ would gain from accessing Gull Island power. In the opinion of the IRC, the 15-year exclusivity period for HQ to develop GI is long compared to common industry practice, especially as it does not begin until 2029. A shorter period would be more appropriate.

## **Ownership Structure**

The MOU calls for the creation of a new 60/40 joint venture corporation between NLH and HQ to develop, operate, and own Gull Island.

Establishing a joint venture corporation for Gull Island is a major, long-term, and likely permanent decision that has important risks. Joint venture corporations are often challenging to sustain in the long run: owners' interests tend to diverge over time as their circumstances change, even if they were aligned initially. Conflicts between joint venture corporation shareholders are especially likely to arise when there is an inherent conflict of interest, as when a shareholder is also a major customer of the corporation. In a power generation corporation, for instance, a shareholder-customer may prefer to allocate capital toward "gold-plated" asset maintenance in order to ensure maximum operational reliability, while other shareholders (who are not major customers) may prefer financial returns on their equity investment in the form of dividends. Also, a minority shareholder may have different risk tolerances for facility design, construction and financing parameters than a majority shareholder.

Under the proposed governance structure for the GI joint venture corporation, HQ will retain its ownership stake, until it chooses otherwise, in one of the province's most valuable but as yet undeveloped assets. However, in other jurisdictions, alternative development, operating, ownership and right-of-use models have been successfully used, such as Public-Private Partnerships (P3) or Participation Agreements. Briefly, in a P3 model, NLH would contract with a subsidiary of HQ to build and operate the Gull Island project, and full ownership rights would ultimately transfer back to NLH at the end of the contract term. Alternatively, in a participation agreement, each shareholder is entitled to a share of electricity directly proportional to its ownership stake (so NLH would retain 60% of the energy, or 1,350 MW, from Gull Island) that it can use or sell at any price without requiring approval from the other shareholder. Each of these alternatives has advantages and disadvantages and the preferred approach will depend on the parties' objectives.

The IRC finds that alternative development and ownership models for Gull Island were not sufficiently considered before MOU negotiations commenced, and that alternative arrangements, such as a participation agreement, could potentially produce more desirable outcomes consistent with the province's long-term objectives.

## **Transmission**

NLH and HQ are each responsible for building their respective segments of the transmission line that will connect Gull Island to HQ's transmission system. The MOU states the requirements as follows:

The Parties agree that NLH will lead and be responsible for the concurrent development of the NL Transmission Assets as required to transport electricity generated by the Development Projects to an agreed HQ delivery point by no later than the commercial operations date of each Development Project. The NL Transmission Assets will be wholly- owned by NLH. NLH and HQ agree to enter into agreements with respect to the

usage and payment for the NL Transmission Assets (the “NL Transmission Agreements”) at a regulated cost-of-service, the terms of which shall be negotiated in the Definitive Agreements.

The Parties agree that HQ will lead and be responsible for the concurrent development of the QC Transmission Assets as required to transport electricity generated by the Development Projects beyond the agreed HQ delivery point by no later than the commercial operations date of each Development Project. The QC Transmission Assets will be wholly owned by HQ.

NLH is planning to be able to deliver at least 8,930 MW to the HQ delivery point based on the maximum energy allotment, before the date at which the development projects are in commercial operation.<sup>3</sup> However, the MOU does not specify how far or to what extent HQ should enhance its transmission infrastructure to accommodate increased power “beyond the agreed HQ delivery point”. If HQ does not make the full necessary enhancements throughout its transmission system, there is a risk that NLH’s ability to transmit power from CF (including CFU and CFX) and Gull Island, including NLH’s existing 265 MW transmission reservation, to external markets could be limited. This uncertainty would be reduced by a specific HQ commitment to ensure transmission capacity throughout its system is sufficient to accommodate the full capacity of CF and the new development projects’ power.

## Summary

Gull Island has the potential to create significant long-term benefits for the province of Newfoundland and Labrador. However, the proposed structure for its development and operation raises a number of issues that, in the IRC’s opinion, should be addressed. The escalating revenue model makes it less likely that NLH would choose to use Gull Island power in the later years of the PPA due to the high power prices at that time, which could impede industrial growth in the province. Revenue shortfalls below true costs may limit the corporation’s ability to meet its full financial obligations during the term of the PPA. The mismatch between the PPA and amortization periods creates financial risk for the shareholders when the first PPA ends. The development fee is at the low end of value-sharing with NLH. The additional power generated in Labrador may congest transmission through Québec and prevent CF power from reaching external markets beyond Québec. Finally, the joint venture ownership structure continues some of the challenges of CFLCo governance, creating strategic and operational risks. Resolving these issues will help ensure that Gull Island achieves its full potential and serves the public interest.

3 8,930 MW represents 4,765 MW (HQ’s allocation from CF in 2025) + 550 MW (CFU) + 1,100 MW (CFX) + 2,250 MW (GI) + 265 MW (NLH transmission reservation).

### 3.4 NL Hydro Transmission

The MOU stipulates that NLH will lead and be responsible for construction and delivery of the transmission lines within NL that are required to transport electricity generated by the development projects through Labrador to an agreed HQ delivery point, and to do so no later than the commercial operation dates of Gull Island and CFX. NLH will wholly own the NL transmission assets. Users of the NL transmission lines will pay a fee based on a regulated utility cost-of-service model, the terms of which will be negotiated in the Definitive Agreements. HQ is also required to develop the transmission assets within Québec to connect Gull Island to the delivery point.

Total revenue over the 50-year period from the NL transmission lines are estimated to have a present value of \$2.2 billion (2024 dollars) or \$13.1 billion (nominal). The net present value of the financial benefit to the provincial treasury from the NL transmission lines are estimated to be \$820 million (2024 dollars), of which \$128 million accrues in the years before 2042.

As part of a 2022 NLH and Hydro-Québec collaboration, NLH prepared a planning-level cost estimate for the Labrador transmission lines to support strategic assessment of transmission options needed in conjunction with new power generation. The estimate reflects a conceptual understanding of routing, facilities, and system configuration and was not intended to establish a sanction-ready project budget. Terminal station costs were benchmarked against recently constructed facilities of similar scope and function. The resulting high-level estimate, including allowance for cost escalation since 2022 and financing costs, is \$3.6 billion (nominal).

Cost estimates for NL transmission assets have not been jointly agreed to by NLH and Hydro-Québec. While changes to the estimates are possible in either direction, a material downward revision is considered unlikely by NLH (absent a significant change in market conditions or project scope).

The potential financial risks to be borne by NLH (or GNL) for this project are associated with the upfront capital requirement: NLH must fully fund all development and construction costs for the NL transmission lines until usage revenues begin to flow. At that point, debt costs will be recovered from users through a regulated cost-of-service pricing model. Should NLH's total equity requirements for all the MOU projects exceed the \$3.5 billion development fee payment from Hydro-Québec, NLH would need to source additional equity funding to fund construction of the transmission lines. Depending on the source of that funding, there may be impacts on NLH's and/or GNL's credit profile.

NLH has proposed that all costs, including any cost over-runs, will be recovered from the users of the NL transmission lines. It is expected that NLH will have to provide a completion guarantee, which will represent a direct contingent liability to NLH (and indirectly GNL, if NLH requires support).

## 4. Governance of Negotiations

GNL initially sought to establish a balance between government and NLH board oversight over the MOU negotiation process, under which the board would first approve some key decisions, and then the government would review and approve them. Some key decisions were eventually subject to government approval but did not require board approval. In practice, as negotiations progressed, the government assumed a greater degree of control over the negotiation team and negotiation decisions than did the NLH board.

In the IRC's opinion, the NLH board did not exercise appropriate oversight authority over the MOU negotiations. In April 2023, the board reviewed and approved a broad principles-based mandate for the negotiating team to commence negotiations over the Churchill Falls PPA, subject to subsequent GNL approval. [REDACTED]

[REDACTED] In June 2024, the board approved a second broad principles-based mandate for negotiations over Gull Island. However, it did not develop or approve detailed, tangible commercial and policy negotiation targets or parameters against which to evaluate the team's progress on either mandate, or to guide them in trade-offs (for example, weighing financial benefit against securing power volumes to support domestic economic development).

Although the board met regularly with the CEO of NLH, who was a member of the negotiating team, it did not meet with the whole negotiating team in order to gain the perspectives of the other two team members. The board also did not meet with the negotiating team's expert advisors, either along with the team or independently. Nor did the board establish a formal sub-committee with a mandate to oversee negotiations until after the MOU was signed (although it did set up an informal advisory committee in 2023). After the two negotiating mandates had been approved, the board had a limited role in formally approving key negotiation decisions until the MOU was completed, which the board approved in December 2024.

The NLH board received updates from senior management on the progress of negotiations during regular board meetings. However, it did not retain its own expert advisors, independent of management, to monitor and advise the board on negotiation outcomes. Doing so would have strengthened the ability of the board to challenge and debate management's reports and recommendations and to evaluate the progress of a highly complex set of negotiations. Partly as a consequence, the negotiating team deviated from some of the recommendations of the 2041 Panel report.

In contrast, as negotiations between NLH and HQ progressed, the government assumed an increasing level of oversight and control over the negotiating team and over key negotiation decisions. Like the NLH board, the government approved the two principles-based mandates, and it received briefings from members of the negotiating team and NLH executives. In the absence of specific negotiation targets, the government actively directed the negotiating team on certain topics and required that the team obtain government approval on key negotiation decisions. However, the IRC could not confirm whether the government retained external experts from the energy or utilities sectors to provide independent advice on the negotiated outcomes or on the impact of proposed directions to the negotiating team (although the government did retain a law firm to monitor the progress of negotiations).

To illustrate, the government required that benefits to the province be increased by \$17 billion by 2041 arising from HQ's payments to CFLCo. However, the IRC did not find evidence that the government fully assessed the potential financial and economic consequences and impact on negotiations of such a requirement.

Second, the government required 50- or 51-year terms for the new development projects' PPAs. This prerequisite created financing challenges since the agreed asset amortization periods were 65 years, leading to unpaid debt and equity balances at the end of the PPA – creating risks for the shareholders and GNL. The negotiating team and expert advisors recommended against mis-aligned amortization and PPA terms.

Third, in the latter stages of negotiations, after the Churchill Falls part of the deal had largely been completed, the government required that revenues for the new development projects escalate by 2% per annum. This requirement departs from established utility pricing models. To achieve a fixed 2% annual increase, prices for Gull Island power had to be artificially reduced below true costs for 45 years, which resulted in more costly financing and deferred repayments to debt and equity holders. Both the negotiating team and its expert advisors advised the government not to require a 2% price escalation.

The IRC did not find evidence that the full financial and economic implications of these government requirements for commercial parameters of the MOU were comprehensively evaluated. In the IRC's opinion, the requirements likely reduced the overall value of the final deal and created additional risks.

After the MOU was signed, the government instituted weekly update meetings between the negotiating team and an ad hoc group of government officials, including senior civil servants from several departments; the attendees received information and provided ongoing guidance to the team. It is not clear that this government group had the necessary industry expertise or experience with complex negotiations typical in energy megaprojects and power purchase agreements to exercise effective oversight.

In conclusion, although Crown corporations are designed to advance policy objectives of the government, they generally do so with more of an arm's-length involvement by government since they are also expected to achieve stated commercial objectives and to function like businesses. In some other jurisdictions—British Columbia, for example—Crown corporations are given annual mandate letters describing government priorities, then strategic and operational decisions are left for the board of directors to oversee.<sup>4</sup>

In this situation, GNL oversight and intervention during negotiations effectively superseded the NLH board's governance role, contributing to a riskier and more expensive deal. In the opinion of the IRC, governance of the MOU negotiation process did not meet the high standards required by a project of this value, complexity, and importance.

4 <https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/accountability-reports/openness-accountability/bch-mandate-letter-2025-2026.pdf>

## 5. Economic Growth Benefits of Churchill River Power

### Electricity Supply and Industrial Development

A reliable supply of hydroelectric power has the potential to create value for the province not just through exports, which provide financial benefits, but also by stimulating economic development when that power is retained within the province. Energy-intensive industries such as mining, metal manufacturing, and data centres contribute to local employment, supply chains, provincial GDP, and government tax revenues when they have access to reliable, low-cost power, which can be a source of competitive advantage in global markets. The zero-emissions profile of hydroelectric power is an additional source of value for certain industrial users—the aluminum and steel sectors, for example—who can sell environmentally sustainable products at premium market prices.

The broader economic importance of ample low-cost power is evident in Québec, where the aluminum sector has benefited from Hydro-Québec’s significant hydroelectric generation resources and favourable industrial electricity rates over many decades. The availability of cheap hydropower is a core reason why Québec (QC) is the dominant producer and exporter of aluminum in North America, accounting for 50% of U.S. imports.<sup>5</sup> The aluminum sector contributed \$6.2 billion to Québec’s GDP in 2022 (direct impact), employing more than 11,000 workers.<sup>6</sup> A 2022 report published by L’Institut du Québec estimated that the economic benefit from electricity used by the aluminum sector was 26 times larger than the economic benefits to the province from electricity exports.<sup>7,8</sup>

In Labrador, the mining sector has relied on access to Churchill Falls power to become an important contributor to NL’s economy. The province has 25 of the 31 minerals identified as critical in Canada, and has deposits of high-grade, low-impurity iron ore, nickel, cobalt, manganese, and copper, which are essential for energy transition infrastructure and for

5 <https://www.rbccm.com/en/insights/2025/02/how-us-steel-and-aluminum-tariffs-would-impact-canadas-economy>

6 See Statistics Canada tables 36-10-0711-01 and 14-10-0202-01 for GDP and employment data by sector and province.

7 L’Institut du Québec (2022). Québec’s Renewable Electricity: Wealth Creation through Eco-Responsible Leveraging. Short Report. The report received financial support from the Aluminum Association of Canada.

8 The 2022 report by L’Institut du Québec states (p. 11): “With regard to the evaluation of the most promising uses for economic development, the following conclusions can be drawn: when electricity is used to support economic activities in Québec, the economic benefits are significantly greater. In a process of identifying the most promising uses of the blocks of electricity available to support economic development, Québec must therefore favour the sectors that use this energy on Québec territory and that generate added value in Québec itself. . . . The same reasoning makes it possible to underline that exports, on the other hand, do not constitute a good lever for wealth creation.” Québec’s aluminum sector purchased 25.6 TWh of power from Hydro-Québec in 2021 (L’Institut du Québec, 2022). This excludes self-generation by large aluminum producers Rio Tinto and Alcoa.

products such as low-carbon steel.<sup>9</sup> Iron ore deposits in the Labrador trough, a long geologic belt in western Labrador, are vast, offering mining opportunities for many generations.

Newfoundland and Labrador and Québec are the two major iron ore producing provinces in Canada, competing in export markets with producers in Australia, China, and Brazil.<sup>10</sup> Canada ranks sixth globally for its iron ore reserves (3% of global total) and eighth in iron ore production (2% of global total in 2024). Major mining operations in NL are located in Labrador, including the Iron Ore Company of Canada in Labrador West and Vale's Voisey Bay site in northern Labrador, which produces nickel, copper, and cobalt.

In 2025, Labrador's iron ore mining sector accounted for \$2.6 billion (2025 dollars) in direct annual GDP contribution (estimated 6% of provincial GDP), approximately 3,500 employees, and 30% of provincial exports (2022). Industrial customers in Labrador, mainly mining companies, use approximately 300 MW of Churchill Falls capacity, so their direct economic contribution is equivalent to about \$1,400 GDP per MWh.<sup>11</sup> The mining sector is also an important contributor to GNL's finances through mining and mineral rights taxes, corporate income taxes, and provincial income taxes on employees' labour income.

While NL's mineral deposits are extensive, mining investment and production in western Labrador has been constrained by access to sufficient power supply, a critical input for mining operations. Under the existing Churchill Falls contract with CFLCo, NLH has rights to 525 MW of the 5,428 MW total capacity, which serves industrial, commercial, and residential customers in Labrador or else is sold to export markets. Every mining company representative that the IRC interviewed cited the lack of additional power in Labrador as a binding constraint on expanding production. Mining companies are unable to produce at maximum potential capacity or to adopt modern processes due to power shortages, which have also inhibited entry and investment by prospective new mining operators. In addition, one company's representative stated that existing operations would also be harmed without access to more power in the near future.

Growth of the iron ore mining sector in NL has been relatively modest over the last two decades, consistent with the impact of energy and infrastructure constraints. In 2007, NL and QC had about the same level of iron ore economic output as measured by the sector's GDP contribution. Since 2007, QC's iron ore mining sector has grown by 125% (4.9% compound annual growth rate) in real GDP terms, while NL's iron ore mining sector has grown by significantly less: 45% (2.2% compound annual growth rate). NL's share of national iron ore

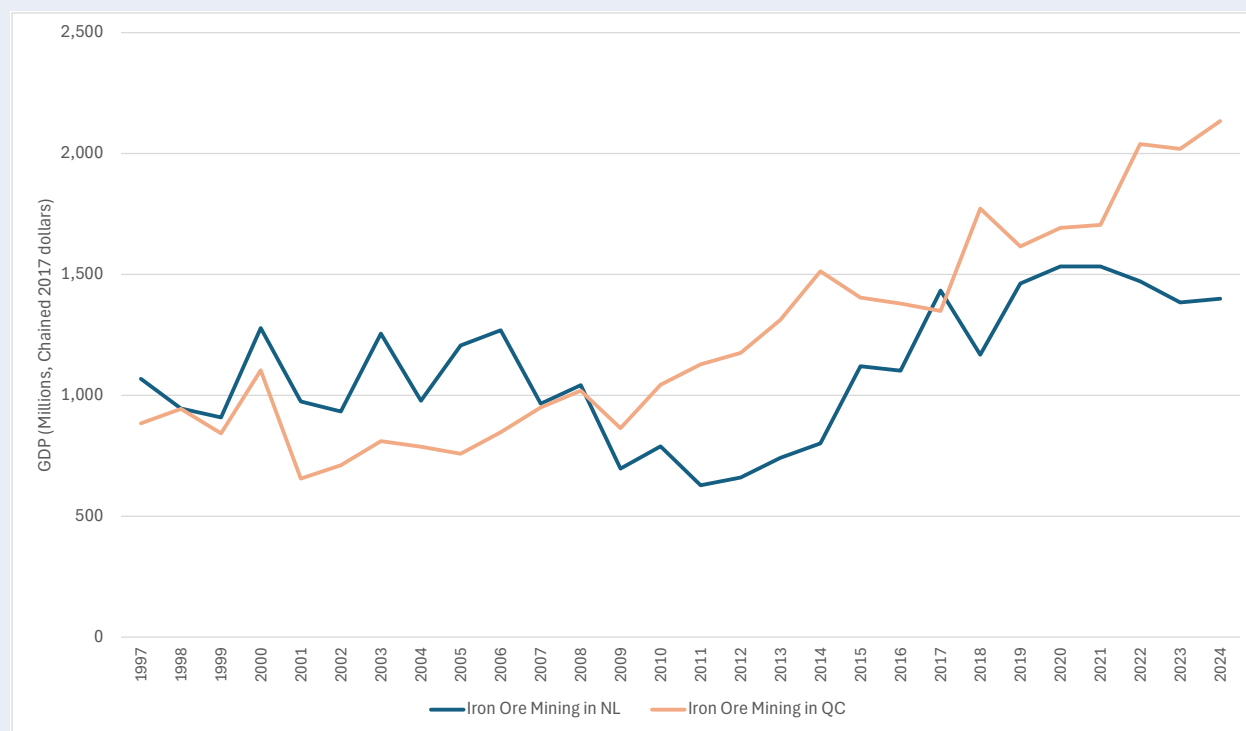
9 Energy transition infrastructure is any physical or systemic infrastructure required to help shift away from fossil fuels.

10 <https://natural-resources.canada.ca/minerals-mining/mining-data-statistics-analysis/minerals-metals-facts/iron-ore-facts>

11 This calculation assumes a capacity factor of 70% for Churchill Falls.

mining GDP has fallen from a peak of 61% in 2005 to 35% in 2024, due to more rapid growth in Québec, notably from development of the Bloom Lake mine, which has the potential to double its production.

**Figure 1: Iron Ore Mining Sector GDP in NL and QC (1997–2024)**



Source: Statistics Canada, IRC

## Economic Impact of Mining Sector Expansion in Labrador

The MOU acknowledges the economic benefits of increasing the power supply for industrial customers in Labrador through the negotiated rights enabling NLH to access additional Churchill Falls capacity beyond the existing 525 MW block. The MOU expands NLH’s access to existing CF supply by 1,105 MW in stages over 30 years, beginning with an additional 305 MW in 2031, 300 MW between 2032 and 2035, a 250 MW expiring block in 2051, and a final additional 250 MW expiring block in 2061. The MOU also includes 360 MW for NLH from the new development projects before 2035, including 225 MW from the Gull Island plant. The prices NLH will pay to CFLCo for all volumes it buys are to be finalized in Definitive Agreements, but they have already been indicated by GNL on the OurChapter.ca website.

A key benefit for NL of the MOU is providing access to an additional 605 MW of CF capacity before 2041 (the year in which, in the absence of the MOU, the current PPA expires). This can enable the mining sector in Labrador to potentially double in size more than a decade earlier than under the existing Churchill Falls PPA. The mining sector is well established in Labrador, but other high-value-added, energy-intensive industries could potentially also be future users of additional CF power, such as hydrogen, ammonia, and methanol producers, as well as technology companies. The low cost of that power would give NL a key competitive advantage in attracting investment to the province.

A limitation of the MOU, however, is the upper limit on the amount of CF capacity NLH can access over the entire 51-year term of the PPA: up to 1,630 MW in total (comprised of 525 MW existing plus 1,105 MW new capacity), which is approximately a 210% increase from the current amount. NLH anticipates, based on conversations with mining companies, that the additional 605 MW will be fully utilized before 2041. The growth in CF capacity available to NLH from 2025 to 2041 (from 525 MW to 1,130 MW) is equivalent to a 4.9% increase each year.<sup>12</sup> Including the additional 360 MW from the development projects, the growth rate in total capacity available to NLH from 2025 to 2041 is equivalent to a 6.7% increase each year. But after 2041, further industrial sector expansion over the next 34 years will be constrained to a much lower growth rate, because only an additional 500 MW of CF capacity will become available in this period—equivalent to a 0.9% increase each year. In other words, the MOU limit on NLH's access to additional CF power after 2041 could severely constrain the potential for continued industrial sector expansion in Labrador over the three-decade period after 2041.

Although NLH sought access to additional CF capacity in its MOU negotiations, the full economic impact benefits had not been quantified, making the true opportunity cost of yielding marginal CF supply to HQ an unknown value.

The economic impact of mining expansion consists of direct and spinoff contributions to the province's GDP that are created by both the initial construction of new mining projects and by future production and operations of the projects during their lifespans.<sup>13</sup> In March 2024, the GNL Department of Finance estimated the economic impact of MOU-enabled construction of mining sector projects in Labrador. It used a standard economic model, incorporating data from Statistics Canada and basic concept information from mining companies and NLH about potential specific future mining projects. The economic impact model assumed that future project investments totalling \$29 billion (\$21 billion, 2025 dollars) would occur between 2025 and 2061, facilitated by the additional 1,465 MW of new capacity that the MOU would make

12 This is the compound annual growth rate over the 16-year period from 2025 to 2041.

13 'Direct economic impacts' reflect the GDP and jobs created directly by a project's initial construction or operation during the project lifespan. 'Spinoff economic impacts' are the combination of 'indirect economic impacts' (GDP and jobs created by a project's purchasing and contracting with suppliers) and 'induced economic impacts' (GDP and jobs that result from household spending of labour income earned directly or indirectly from a project). For further discussion of economic impacts, see <https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/analyzing-health-social-economic-effects-impact-assessment-act.html>

available to NLH.<sup>14</sup> The economic contribution to GDP (direct and spinoff) from construction of these mining projects was estimated to be \$17 billion in 2025 dollars (see Table 2).

In March 2025, the GNL Department of Finance updated the economic impact analysis to include preliminary rough estimates of GDP created during the production periods for the mining projects. Such estimates are subject to greater uncertainty than estimates of construction impacts given the need to make assumptions about model parameters over a multi-decade time period. GDP contribution from the production phases of these projects over their lifespans was estimated to total almost ten times larger—\$161 billion (2025 dollars), giving an overall total GDP impact from construction and production of \$178 billion from 2025 to 2075. The annual average incremental GDP impact (direct and spinoff) from these additional mining projects was estimated at \$3.5 billion (2025 dollars). In other words, mining sector expansion, enabled by access to an additional 1,465 MW of power capacity, could approximately double the current annual contribution of the mining sector to provincial GDP (to approximately \$5 billion direct GDP per year in 2075).

**Table 2 – Estimated Economic Impact of Iron Ore Mining Projects Enabled by MOU (GDP Millions, 2025 dollars, and Employment, person-years)**

	GDP (\$ Million 2025 )			Employment (Person-Years)		
	Total 2025–2075	Total 2025–2041	Average 2025–2075	Total 2025–2075	Total 2025–2041	Average 2025–2075
Construction Impact (Direct)	9,774	5,715	192	56,901	32,130	1,116
Construction Impact (Spinoff)	7,290	4,206	143	55,170	31,458	1,082
Production Impact (Direct)	109,780	25,659	2,153	115,380	22,177	2,262
Production Impact (Spinoff)	50,713	12,223	994	261,299	43,912	5,124
<b>Total</b>	<b>177,557</b>	<b>47,804</b>	<b>3,482</b>	<b>488,750</b>	<b>129,678</b>	<b>9,583</b>

Source: IRC analysis, Department of Finance

As a comparison, the total GDP impact from the MOU’s hydro generation construction projects (Gull Island, CFX, CFU, and new transmission lines) was estimated by the Department of Finance to be \$15.2 billion (2025 dollars).

It is notable that the Department of Finance’s estimates of construction and production economic impacts reveal stark differences in forecast iron ore mining sector growth rates over the course of the MOU period. From 2025 to 2041, iron ore mining sector incremental real GDP growth (resulting from MOU-enabled additional CF and new development power supply) is estimated by the IRC to be approximately 4.5% per annum on average, but from 2042 to

14 The assumed iron ore mining projects included potential investments by existing companies active in the region and two new greenfield projects equivalent in value to the Kami project that would be developed to utilize the two 250 MW expiring blocks available to NLH in 2051 and 2061.

2075 it is close to zero, reflecting the smaller amount of new power capacity available over this longer period compared to the earlier period.

The provincial government would directly benefit financially from the mining sector's additional contribution to GDP through higher corporate income taxes, mining and mineral rights taxes, provincial income taxes on labour income, payroll taxes, and the provincial portion of HST. These contributions are estimated to total \$22.8 billion until 2075 (equivalent to 13% of the total GDP impact), an average of approximately \$450 million per year from 2025 to 2075. The amount of government tax revenues would increase proportionately if a greater amount of CF capacity were used in province.

In sum, the potential economic benefits from retaining and utilizing power in the province for industrial development purposes are likely to be substantially greater than the financial benefits from exporting power. Achieving economic benefits, however, is a more complex, uncertain, and lengthier process than achieving the financial benefits that derive from exports, an issue that the next section discusses.

### **An Economic Development Strategy for Industrial Sector Growth**

While timely availability of a supply of new power is cited by mining companies as one of the top critical factors in corporate investment decisions for Labrador projects, other factors play an important role as well. The IRC's conversations with mining company executives highlighted several that are regarded as salient in NL:

- **Transmission Infrastructure:** Additional power supply from Churchill Falls will require complementary expansion of existing transmission line infrastructure, which is currently at maximum capacity. A consortium of mining companies has explored joint investment in a new 735 kilovolt (kV) line at an estimated cost of \$2.5 billion, though the shifting priorities and needs of consortium members have made progress challenging. One executive described a chicken-and-egg problem: the need for additional transmission capacity depends on forecast power availability, but the demand for additional power also depends on expected transmission availability. In some other provinces, governments have taken the lead in designating new transmission lines as strategic priorities, directing regulatory approval of project need, in order to stimulate economic development.<sup>15</sup>
- **Cost of Power:** Overall iron ore mining production costs in Labrador are high relative to some other jurisdictions—such as Australia, the global largest producer of iron ore—due

<sup>15</sup> The Government of Ontario has been particularly active in approving new transmission lines ahead of industrial demand. See <https://news.ontario.ca/en/release/1006009/ontario-building-new-transmission-lines-to-power-growth-across-the-province>: "For Ontario's energy-intensive industries—from greenhouses to auto manufacturing—access to affordable, secure and reliable electricity isn't optional, it's essential. . . . By advancing these lines, we're leveraging Ontario's energy advantage to unleash the full potential of our economy and ensure the energy system can power investment, support increased production and protect jobs."

to the nature of the geology, the extraction process, climate conditions, and distance to export markets, making the low cost of CF power for industrial customers in Labrador an offsetting advantage. If industrial power rates were to increase significantly in the future, the government would likely need to implement a rate mitigation strategy in order to sustain industrial investment. The MOU will require GNL to clarify rate mitigation policy.

- **Social Infrastructure:** Mining investment and workforce expansion generate the need for expanded social infrastructure in nearby communities—housing, healthcare services, schools, recreational amenities, commercial services, and so forth—much of which is controlled and funded at the municipal and provincial levels of government. The availability of social infrastructure is critical for attracting private-sector employees to mining project communities. A clearly articulated government plan for investing in new social infrastructure is thus an important element of an overall industrial development strategy.
- **Critical Mineral Market Conditions:** Corporate investment decisions in new mining projects are sensitive to global market conditions and commodity prices, which are cyclical and variable, and which lead in turn to periods of capital abundance and capital scarcity. Global iron ore prices, around US \$100/tonne in early March 2026, are less than half their recent peak (in mid-2021), which has caused some iron ore mining companies to pause their capital investment plans. When market conditions improve, jurisdictions that can offer sufficient energy and infrastructure capacity will be in a stronger position to compete for globally mobile investment. There is thus a benefit for jurisdictions that develop their infrastructure ahead of anticipated demand: they will be ready to attract investment when demand does materialize.

Hence, realizing the economic growth potential in western Labrador from an improved power supply—in the form of private investment by the mining sector—depends on the state of key market and policy factors. GNL can play an important role in attracting new mining and industrial investment by formulating and implementing policies in the context of an integrated, long-term, industrial development and energy strategy that addresses physical and social infrastructure needs. For instance, supporting and sanctioning a new transmission line in western Labrador, clarifying future rate mitigation policy, and developing new social infrastructure would all contribute to a more favourable investment environment.

In addition to the mining sector, other energy-intensive industries could potentially benefit from new CF power capacity, including technology companies with rapidly growing, AI-based power needs. Microsoft announced in late 2024 that it had agreed to a 20-year PPA with Constellation Energy to restart part of Pennsylvania’s Three Mile Island nuclear plant, which will provide 825 MW of capacity.<sup>16</sup> In October 2025, NextEra Energy announced a 25-year PPA with Google

16 <https://www.constellationenergy.com/news/2024/Constellation-to-Launch-Crane-Clean-Energy-Center-Restoring-Jobs-and-Carbon-Free-Power-to-The-Grid.html>

to supply 615 MW of nuclear power.<sup>17</sup> Amazon is partnering with two U.S. utilities, Dominion Energy and X-energy, to develop and procure 5 gigawatts (GW) of nuclear energy over the next 15 years.<sup>18</sup> These announcements point to a major new type of industrial power demand, driven by recent technological innovation, that is creating new economic growth opportunities for jurisdictions that have available power capacity.

### **Future Potential for Labrador's Industrial Sector**

NLH's negotiated access to an additional 605 MW of existing capacity from Churchill Falls and 360 MW from the new developments before 2041, and up to an additional 500 MW after 2041, was based on its negotiations with HQ and its discussions with several mining companies about their potential power needs in the medium term. However, the government-approved negotiating mandate that NLH was given was not informed by a quantified analysis of the full economic benefits to the province of mining or energy-intensive industry expansion in Labrador. Had these benefits been fully estimated before negotiations commenced, even if they were preliminary and uncertain, it is possible that the government would have placed greater importance on securing a larger amount of existing Churchill Falls supply for use within the province.

There are many possible alternative long-run growth scenarios for Labrador's industrial sector. One simple scenario builds on the IRC's estimate, using Department of Finance data, that, under the MOU, iron ore mining sector-related incremental real GDP growth averages approximately 4.5% per annum during the 2025 to 2041 period and approximately zero in the 2042 to 2075 period. Suppose instead that the incremental real GDP growth rate during the 2042 to 2075 period was a modest 2% per annum, just under half the previous period's rate.<sup>19</sup> Iron ore mining or industrial sector real GDP, growing at 2% per annum, would reach approximately \$11 billion (2025 dollars) by 2075, four times its 2025 level of contribution to GDP. To enable this degree of mining or industrial sector expansion, NLH may need to utilize 3,000 MW of CF capacity by 2065. In this scenario, the estimated incremental cumulative contribution to provincial GDP, including both direct and indirect impacts, from iron ore mining or industrial sector growth during the period 2025 to 2075 could be approximately 65% (\$115 billion) greater than the \$178 billion estimate of the GDP benefit from the MOU scenario.

It should be stressed that this is a hypothetical scenario for illustrative purposes and is not a prediction or forecast of what would likely happen in the future.

17 <https://www.investor.nexteraenergy.com/news-and-events/news-releases/2025/10-27-2025-203948689>

18 <https://www.ans.org/news/article-6480/amazon-investing-in-smrs-to-deploy-5gw-by-2039/>

19 This scenario assumes that the available power supply will increase by 3% per annum in order to enable industrial growth in real terms.

Although more comprehensive modelling and scenario analyses are needed—especially considering the growth prospects in different energy-intensive industries—this preliminary scenario indicates the potential significant economic benefit of securing greater Churchill Falls capacity after 2041 beyond the MOU amounts and of fostering vigorous industrial sector expansion. It also highlights a major risk for NLH, contained in the MOU: access to additional CF power is contingent on NLH’s timely completion of milestones relating to the Gull Island and CF Expansion projects. In the opinion of the IRC, this is not an acceptable risk for NLH given the potential detrimental consequences for the NL economy.

The IRC is not able to conclude that NLH should necessarily target a greater share of CF power beyond the MOU allocation. However, given the magnitude of the economic implications, the IRC recommends that careful analysis of achievable economic benefits is needed before engaging in further discussions with HQ.

## 6. Conclusions

The Memorandum of Understanding (MOU) has several important aspects that are beneficial for the province of Newfoundland and Labrador. Despite these benefits, however, the IRC finds, based on the evidence it has reviewed, that the MOU as currently configured is not in the overall best long-term interest of the people of the province.

We conclude this, in part, because of limitations in the MOU that were also a feature of the 1969 Churchill Falls Power Contract (as renewed in 2016). Specifically, these are limited rights to use Churchill Falls power in the province over an extended period, problematic power pricing models, governance control by a minority shareholder who is in a conflict of interest position as a major customer, and restricted access to transmission infrastructure that would enable power generated in Labrador to reach export markets. In our view, the government of Newfoundland and Labrador has several significant decisions to make that could ultimately make the MOU serve the public interest.

As it now exists, the MOU does offer improved financial and economic benefits to the province. It increases the price of Churchill Falls power that the Churchill Falls (Labrador) Company sells above the current contracted price before 2041, and the forecast price for Churchill Falls power after 2041 is reasonable (subject to improvements in timing of payments) compared to HQ's forecast cost of alternative sources of supply. Newfoundland and Labrador Hydro (NLH) and the province will benefit directly from the resulting improved financial performance of CFLCo. The MOU provides NLH with access to additional power from Churchill Falls before 2041, which is expected to bring economic growth benefits to the province through expansion of the mining sector and other energy-intensive industries. The province will also gain from the development and equity ownership (through NLH) of a major new generation asset (Gull Island)—and achieve that without bearing full construction-cost risk. Building a new power generating facility at Gull Island, new transmission lines, and the Churchill Falls Upgrades and CF Expansion projects will all bring short-term economic benefits and jobs to the province.

These benefits, and the related risks, of the MOU to the province have not been clearly or completely communicated to the public, contributing to confusion about its true financial and economic value. The total financial benefit to the provincial treasury of the overall MOU is best represented by the net present value amount, which is estimated at approximately \$31 billion (including estimated rate mitigation costs) rather than by the \$227 billion nominal amount presented in government documents. Of the \$31 billion total, \$9.2 billion will be received prior to 2042. The new NLH CF PPA will provide forecast benefits of \$1.3 billion NPV (net of rate mitigation) while the new HQ CF PPA is forecast to provide \$7.3 billion NPV of financial benefits to the province. This \$7.3 billion NPV amount is effectively the financial benefits at risk to the province before 2042 if the MOU is not implemented.

The majority of the MOU's financial benefit is attributable to the proposed new Churchill Falls PPA, which has a present value of payments to the provincial treasury of approximately \$26 billion (after estimated rate mitigation) over 51 years. The amount of HQ's total payments that ultimately flow through to the province in the form of CFLCo dividends, water rentals, and royalties, is forecast to be \$23 billion (NPV). The development projects contribute much less in terms of financial benefits to the province. The present value of financial benefits to the treasury relating to the Churchill Falls Upgrades and CF Expansion projects is close to zero dollars over the PPA terms. The present values of financial benefits relating to the Gull Island and NLH transmission projects are \$4.1 billion and \$0.8 billion, respectively.

The economic benefits of GDP growth and job creation resulting from the MOU were also not fully communicated to the public, in part because the full economic impact of industrial and mining sector expansion that improved power access would enable was not estimated during preparation for the MOU negotiations. Subsequent estimates indicate a significant uplift to GDP— amounting to an estimated \$178 billion (in 2025 dollars)—from the direct and spinoff economic stimulus of new mining project investments and operations during the period from 2025 to 2075. Approximately \$48 billion (in 2025 dollars) of these GDP benefits are forecast to occur from 2025 to 2041. In addition, the GDP impact associated with the construction of Gull Island, the CF Expansion and CF Upgrades projects, and NLH's new transmission line is estimated to be approximately \$15 billion (2025 dollars). The absence of comprehensive information on potential economic benefits to the province, even though they are harder to estimate than financial benefits, may have resulted in their being under-weighted during MOU negotiations and public discussion.

Against these financial and economic benefits, however, significant limitations of the MOU should be considered, and they arise from several fundamental issues.

The first and most important issue is identifying how value for the province should be created from the low-cost, dispatchable, clean power produced at Churchill Falls. There are two ways to generate value from such a resource: it can be exported at the highest price available— providing financial value—or it can be retained in the province for use by energy-intensive industries, and thereby also create broader economic value (as industrial companies invest, operate, and grow). A fundamental challenge of the renewed 1969 Churchill Falls Power Contract with Hydro-Québec was that NL gained little financial or economic benefit from Churchill Falls in the decades that followed. This was a consequence of the low fixed-price contract and, importantly, NLH's limited, inflexible access to CF power, which has constrained natural resource sector development in Labrador. Mining companies located in Labrador reported to the IRC that the lack of available power supply is a core constraint on their businesses and one of the main factors affecting corporate investment decisions. Since 2007, Labrador's iron ore mining sector, which contributed \$2.6 billion to the province's GDP in 2025 (in 2025 dollars), has grown at half the rate (in real GDP growth terms) of Québec's iron ore mining sector, yet it is mainly located in the same geographic region.

The MOU improves on the 1969 Churchill Falls Power Contract by increasing NLH's access to existing CF facility power by 605 MW before 2041 and up to a maximum of 30% of total CF capacity by 2061 (up from 10% in 2024). However, a significant limitation of the MOU is that it provides up to only an additional 500 MW of capacity from CF and the new development projects to NLH in the 33-year period from 2042 to 2075, which is likely to constrain further industrial growth and economic development. The IRC estimates that if the mining sector, or other energy-intensive industries, had access to more CF capacity after 2041 than proposed in the MOU—and thus were able to grow at a modestly higher rate than projected—the incremental contribution to GDP could be \$115 billion (2025 dollars) more in the 2025 to 2075 period, or 65% greater, than the economic benefit forecast under the MOU. More detailed modelling is required, but these preliminary estimates indicate the potential magnitude of future economic growth benefits associated with in-province use of CF power. In sum, although the MOU increases the financial value for this province (achieved from exporting CF power to Québec), there is at the same time a significant lost opportunity of potential economic benefits that would accrue from retaining more power in the province.

Hence, a key decision for GNL is defining the optimal balance of financial versus economic value that GNL wishes to achieve from Churchill Falls over the coming decades. We believe that future economic development strategy and planning should be led by the government and integrated into NLH's long-term infrastructure plans, a key step that was not performed prior to negotiating the MOU.

From a financial perspective, there are important limitations and risks of the MOU. Risks arise from problematic pricing and payment structures. The price of CF power after 2041 is largely determined by HQ's avoided replacement cost rather than by external market prices, which could be achieved if NLH secured transmission access through Québec or alternate routes. And under the CF PPA, the back-weighted schedule of nominal payments toward the later years of the term exposes GNL to future inflation risk, which could reduce the real value of payments. The CFU and CFX projects provide little financial benefit to the province. Finally, the atypical pricing model and other commercial arrangements for Gull Island lead to a significant nominal revenue shortfall and outstanding debt, dividend, and equity balances at the end of the PPA period, a financial risk for both NLH and the province.

The second key issue regarding the Churchill River projects is the question of whether it is in the best long-term public interest for NLH to expand a joint ownership relationship with HQ through a new, 60/40 joint venture for the Gull Island project.

Establishing a joint venture between NLH and HQ for the development of Gull Island is a major, long-term, and likely permanent decision that has important risks. Joint ventures are often challenging to sustain in the long run: owners' interests tend to diverge over time as their circumstances change, even if they were aligned initially. Conflicts between joint venture shareholders are especially likely to arise when there is an inherent conflict of interest, as when a shareholder is also a major customer of the corporation. Once a joint venture is established

it can be difficult to change ownership or control, since shareholders cannot be forced to relinquish their rights, making initial decisions about ownership and governance arrangements especially critical.

The IRC finds that alternative ownership arrangements for developing Gull Island that are commonly used in the energy sector – such as Participation Agreements, Public-Private Partnerships, and Build-Operate-Transfer models – were not sufficiently considered before negotiations commenced between NLH and HQ, and that it would be in the public interest to do so.

The third key issue with the MOU relates to how the negotiation process between NLH and HQ was overseen. GNL, which appointed the three-person negotiating team, initially sought to establish a balance between government and NLH board oversight, but the practical effect over time was greater government control over the team and key negotiation decisions. The IRC's view is that the NLH board did not exercise its full governance authority over negotiations, and that government intervention over-reached in a way that was harmful to negotiated outcomes.

In the absence of detailed commercial and policy negotiation targets, the government actively directed certain negotiation outcomes and required the negotiating team to obtain its approval for key decisions. At various stages of the negotiations, GNL required that several specific commercial outcomes be included in the MOU. The full financial and economic implications of these requirements were not comprehensively evaluated, and they likely reduced the commercial value of the final deal and introduced risks.

In the opinion of the IRC, governance of the MOU negotiation process did not meet the high standards demanded by a project of this scale, complexity, and importance. The governance and oversight arrangements used for these kinds of negotiations can have a fundamental effect on their outcome—choosing which to apply is thus another central decision for GNL to make as it considers the best approach for future negotiations.

The fourth key issue with the MOU concerns the short-term financial benefits to NL that could be obtained from Churchill Falls under a new power purchase agreement. Currently, the CF plant has no long-term debt, which creates a significant yet unrealized financing opportunity for CFLCo. NLH's expert advisors estimated the CF balance sheet could support approximately \$8 billion of new long-term debt under the MOU's proposed new Churchill Falls PPA. If the CF Upgrades and CF Expansion projects were financed on a stand-alone basis—not on the basis of the CF balance sheet as proposed in the MOU—this debt, supported by a renewed PPA, could provide NLH and HQ with an immediate enhanced dividend payment of up to the \$8 billion. This opportunity, which is directly associated with the MOU, has not been completely investigated, primarily because of how the 2% escalating revenue model affected financing of the Churchill Falls Upgrades and Expansion projects. Any new PPA that features a higher price for CF power than the current price and a medium duration would support improved dividend capacity and provide a one-time financial benefit for the province.

## 7. Recommendations

**Recommendation 1: GNL should determine, based on a comprehensive analysis of long-run economic development options, the extent to which power generation from the Churchill River should provide financial versus economic value to the province over time.**

New strategic work should be undertaken to identify and understand opportunities for Churchill River power to stimulate growth of the NL economy and to develop an economic development vision and strategy for the province. The key decision for GNL is: how much power from the Churchill River should NLH retain within the province for economic growth purposes (economic value) and how much should be exported and under what type of commercial arrangements (financial value).

**Recommendation 2: GNL should sanction and support NLH construction of new transmission line capacity between Churchill Falls and Labrador West in order to enable economic growth of the province's energy-intensive industries.**

This recommendation is independent of the outcome of negotiations between NLH and HQ, given the urgent need to address critical power supply shortages in Labrador West that are constraining economic development in that region.

**Recommendation 3: GNL and NLH should remain committed to the objective of building respectful relationships with and consulting Indigenous communities in connection with future developments on the Churchill River and in Labrador.**

The IRC received submissions from several Indigenous groups and affirms the importance of the parties respectfully engaging and consulting with Indigenous groups.

**Recommendation 4: GNL should rigorously evaluate alternative ownership, operating, and right-of-use models for new hydroelectric generation at Gull Island that are consistent with the province being the primary beneficiary of the financial and economic value created.**

Participation Agreements, Public-Private Partnerships, and Build-Operate-Transfer are alternative models for power generation projects that offer different arrangements for their ownership and use while still allowing the province to maintain long-term control and to maximize value. A comprehensive analysis of all strategic alternatives for Gull Island will inform GNL on how best to achieve its financial, economic, and strategic objectives.

**Recommendation 5: GNL and NLH should prepare for future negotiations with HQ by preparing a fully articulated negotiation strategy and best-practice governance process.**

Future negotiation strategy should include detailed commercial and policy goals, alternative options, and measurable outcome targets. The importance or value of each goal and alternative should be carefully evaluated and quantified in advance, and trade-offs between policy goals should be identified and clarified.

GNL should establish an independent governing body composed of industry experts that is appropriately resourced and compensated to oversee negotiations. The governing body should agree on a specific mandate and negotiation objectives with GNL, and it should retain its own independent, industry expert support. The governing body should be responsible for reporting to GNL on the progress of negotiations.

GNL should be aware of the risks of actively intervening in commercial negotiations once objectives are defined and the negotiation mandate agreed on. GNL should also consider retaining its own industry experts to provide impartial, informed advice independent of the governing body.

## 8. IRC Responses to the Order’s Suggested Considerations

The IRC was asked to evaluate whether the MOU was “in the best long-term interest of the people of NL” and to consider 15 specific questions that were posed in the IRC’s terms of reference (see Appendix 1). The IRC considers the “best long-term interest of the people of NL” (shortened to ‘public interest’ for brevity) to mean maximizing the economic and financial benefits of the province’s natural resources in order to create long-term prosperity for the people of the province.

**In conducting the inquiry, the inquiry committee is encouraged to consider the following:**

- (a) whether the negotiators representing Newfoundland and Labrador Hydro and the government of the province were given an appropriate mandate before beginning the negotiations with Hydro-Québec that resulted in the Memorandum of Understanding, and whether any such mandate was consistent with the final report of the Commission of Inquiry Respecting the Muskrat Falls Project, advice from the 2041 Churchill River Management Expert Panel and any other reports the inquiry committee considers relevant**

Newfoundland and Labrador Hydro created a principles-based mandate for the Churchill Falls negotiations in early 2023. It was approved by both the NLH board and the provincial government. The mandate’s five principles were designed to guide negotiations. Five additional objectives were stated in the mandate presentation to government by NLH. Together, the principles and the objectives were consistent with the final report of the Commission of Inquiry Respecting the Muskrat Falls Project and with advice from the 2041 Churchill River Management Expert Panel (2041 Panel).

The mandate was, however, very high level. It gave the MOU negotiators no detailed commercial or public policy objectives, which made it difficult to objectively evaluate whether or not negotiations were progressing toward the specific desired outcomes. Documents made available to the IRC referenced the need to produce a detailed negotiation mandate, but this did not occur. Although the negotiating team arguably achieved several of the Churchill Falls mandate’s principles and objectives in the final MOU, others were not achieved.

Additionally, the relative importance of each of the mandate principles was not comprehensively established or quantified before negotiations commenced, nor was there a

full analysis of the impact of trade-offs (such as between financial or economic objectives) that could be made in relation to each principle. For example, the economic impact of increasing the power supply to NLH from Churchill Falls was not assessed, making it difficult to understand the comparative merit of retaining power in the province versus exporting it to Québec.

In mid-2024, NLH drafted a second principles-based mandate for the negotiations around developing a power facility at Gull Island. It, too, was approved by the government and by the NLH board. This mandate resembled the Churchill Falls mandate in structure, and it led to a similar negotiation path.

In the absence of prescribed, detailed targets for the Churchill Falls and Gull Island negotiations, GNL assumed a more active oversight role during negotiations. GNL introduced specific commercial outcomes the negotiating team was to achieve at various stages during the process. For example, early in negotiations, the government required that benefits to the province be increased by \$17 billion by 2041, arising from HQ's payments to CFLCo. After the Gull Island mandate was approved, GNL required that the pricing model for the development projects incorporate a 2% annual revenue escalation clause. GNL decision-makers regarded such directions to the negotiating team as an evolution of the mandate principles and of the negotiations. However, it is not clear that GNL fully appreciated the trade-off between the financial and economic impacts of such requirements nor their consequences for other aspects of the negotiations.

These interventions also created new interdependences between the Churchill Falls and Gull Island negotiations, [REDACTED] Commingling the MOU components meant some value originally achieved within the Churchill Falls negotiation was traded away to get results in the negotiations concerning the development projects. [REDACTED]

Following industry practice, negotiators would have a detailed mandate and the ability to make decisions in synchronization with the flow of negotiations. During the MOU negotiations, however, the negotiating team stated that they did not have authority to make major decisions. Instead, they had to seek approval from GNL, a situation that introduced time delays and uncertainty for both negotiating parties. It is notable, too, that key negotiation decisions did not require formal approval by the NLH board, further emphasizing the direct influence GNL had on negotiation outcomes. This practice and structure was harmful to the results of the negotiation—they likely reduced the value of the Churchill Falls PPA and created costs for the Gull Island Joint Venture that make it harder to finance.

In the opinion of the IRC, the mandate principles approved for the MOU negotiating team were appropriate and also consistent with previous expert report recommendations. However, because the mandates were not accompanied by detailed commercial or policy negotiation

targets or by a comprehensive analysis of the financial and economic value of each principle, they consequently deviated from the 2041 Report recommendations.

**(b) whether claims made about revenue the Memorandum of Understanding would generate, and the resultant forecasted benefits to the provincial treasury, were accurate and reasonable, including a review of how the total value of \$33.8 billion (on a net present value basis) in Schedule F of the Memorandum of Understanding, total forecasted payments to be made to Churchill Falls (Labrador) Corporation Limited by Hydro-Québec and how the annual schedule of forecasted payment amounts in Schedule G of the Memorandum of Understanding were determined and why**

In its review, the IRC determined that some of GNL's statements about the forecast revenues and financial benefits expected to be generated by the MOU components were accurate. Some others, however, were understated, overstated, or incomplete, which can misrepresent the ultimate results of the completed deal and cause public confusion. In addition, the body of the MOU presented the agreed financial value of target payments in present value terms (in 2024 dollars), while the government mainly presented financial benefits as forecast nominal dollar amounts (absolute figures that do not adjust for future inflation), making the real revenues and benefits of each project difficult to understand.

For example, the government:

- Understated the forecast payments by NLH to CFLCo due to the exclusion of payments for the expiring blocks of power allocated to NLH in 2051 and 2061. Forecast payments were stated to be \$65 billion but the amount is \$83 billion (nominal).<sup>20</sup>
- Overstated forecast benefits from CF by not including rate mitigation, which the IRC estimates to be \$48 billion (nominal, \$5.4 billion present value).
- Omitted the estimated economic and job creation benefits from increased production and operations by the industrial sector in Labrador during the period 2025 to 2075 as a result of increased access to power. The IRC estimates the GDP benefit to be \$160 billion (2025 dollars).

In the IRC's opinion, a more appropriate presentation of the MOU's revenues and benefits—all of which will be realized in the future—should be stated in present value (today's dollar) terms, a standard approach in financial analyses. Due to the impact of inflation and rising prices of goods and services over time, a dollar received 20 years from now has much lower purchasing

20 See [https://www.ourchapter.ca/files/OurChapter\\_WebResource\\_RevenuesExpensesDividends\\_3.pdf](https://www.ourchapter.ca/files/OurChapter_WebResource_RevenuesExpensesDividends_3.pdf)

power and is less valuable than a dollar received today. Thus, expressing future forecast revenues and benefits in present value terms gives a more appropriate basis of presentation of the financial value of a project than does a nominal dollar amount.

At the time of the MOU's announcement, GNL published four documents that included statements about the expected financial benefits to the province: a presentation titled "A New Chapter for Hydroelectric Generation in Labrador,"<sup>21</sup> a fact sheet titled "The Churchill's New Chapter,"<sup>22</sup> a table titled "Breakdown of Energy Allocation from Churchill Falls Plant to Hydro-Québec and Newfoundland and Labrador Hydro,"<sup>23</sup> and a document titled "Financial Benefit to Newfoundland & Labrador Treasury."<sup>24</sup> The majority of the financial numbers they contain are stated in nominal dollar terms.

The documents reference two amounts that are explicitly stated in the MOU in present value (today's dollar) terms: \$33.8 billion is the target present value (2024 dollars) of HQ's payments to CFLCo over the term of the new Churchill Falls PPA, and \$3.5 billion is the present value (2024 dollars) of HQ's payment for the right to co-develop new projects in Labrador (the development fee).

The challenge with presenting nominal dollar sums of forecast financial payments and benefits over many years is that the value of a nominal dollar changes over time due to price inflation. For example, a standard cup of coffee that cost \$1 in 1990 now costs \$2.15 today thanks to inflation. Nominal payment schedules over multiple year periods can be structured in multiple ways that will yield the same present value over time. For example, a CF PPA price set at \$5.9 ¢/kWh in 2025 and escalating at 2% each year thereafter, as described by NLH executives in the House of Assembly on January 7<sup>th</sup>, 2025, will lead to a present value of \$33.8 billion, when discounted at 5.822%. However, this pricing model results in a total nominal payment amount of \$125 billion over the period 2025 to 2075 (which is \$70 billion less than Schedule G payments stated in the MOU). Similarly, a higher nominal value does not necessarily imply a higher present value, as this depends on the timing of payments over the relevant time period. In fact, a project with a lower nominal total payment could have a higher present value if the annual payments are weighted more heavily toward the earlier years.

In order to evaluate the financial benefits of the MOU to the provincial treasury, the IRC used the net present value of each of the projects provided by NLH and its expert advisors (see Table 1, reproduced below). In doing so, the IRC made various assumptions and simplifications that are documented in the Table's footnote. The IRC received, reviewed, and assessed information provided by NLH, its expert advisors, and GNL. The IRC did not audit or

21 <https://www.ourchapter.ca/files/NewfoundlandLabrador-Quebec-MOU-Briefing-Deck-Dec-12-2024.pdf>

22 [https://www.ourchapter.ca/files/Churchill-Falls\\_FactSheet\\_Print.pdf](https://www.ourchapter.ca/files/Churchill-Falls_FactSheet_Print.pdf)

23 [https://www.ourchapter.ca/files/OurChapter\\_WebResource\\_EnergyAllocationBreakdown.pdf](https://www.ourchapter.ca/files/OurChapter_WebResource_EnergyAllocationBreakdown.pdf)

24 [https://www.ourchapter.ca/files/OurChapter\\_WebResource\\_RevenuesExpensesDividends\\_3.pdf](https://www.ourchapter.ca/files/OurChapter_WebResource_RevenuesExpensesDividends_3.pdf)

independently confirm the numbers provided. The only independent calculations performed for Table 1 were an estimate of rate mitigation and an estimate of the provincial benefits of expiring block revenues. The IRC completed these calculations as it believed rate mitigation to be material to the financial assessment of the MOU, and NLH had not completed it for the post-2041 period.

**Table 1 – Summary of Financial Benefits to the Provincial Treasury from the MOU<sup>25</sup>**

<b>Financial Benefits of the MOU</b>	<b>2025–2041 NPV</b> (\$ million 2024 dollars)	<b>2042–2075 NPV</b> (\$ million 2024 dollars)	<b>TOTAL NPV</b> (\$ million 2024 dollars)
<b>Dividends, rents and royalties from:</b>			
HQ flowing through CFLCo	\$7,347	\$15,693	\$23,040
NLH flowing through CFLCo	1,818	5,236	7,054
NLH expired blocks flowing through CFLCo	0	1,173	1,173
<b>Total flow-through benefits from CFLCo</b>	<b>9,165</b>	<b>22,102</b>	<b>31,267</b>
CF Upgrade	0	0	0
CF Expansion	0	68	68
<b>Total CF/CFU/CFX</b>	<b>9,165</b>	<b>22,170</b>	<b>31,335</b>
Less estimated rate mitigation	(515)	(4,860)	(5,375)
<b>Net Benefits to Treasury from CF/CFU/CFX</b>	<b>8,650</b>	<b>17,310</b>	<b>25,960</b>
Gull Island Joint Venture (2025–2085)	394	3,731	4,125
NL Transmission	128	692	820
<b>NPV of Benefits from MOU</b>	<b>9,172</b>	<b>21,733</b>	<b>30,905</b>

25 The IRC has included forecast revenue related to NLH’s anticipated payments for the two CF expired blocks, which was not included in the GNL information. Since the pricing for expired blocks is still to be determined, the IRC assumed NLH will pay the same price for power as Schedule G forecasts for HQ. The NPV of the flow-through benefit payments to GNL is \$1.1 billion (2025 dollars). The IRC did not include an estimate of NLH’s forecast net profit between 2025 and 2041 under the current CF PPA, which should be considered when assessing the “increase” in benefits provided by the MOU to the provincial treasury. Estimated rate mitigation costs were not calculated for NLH’s potential recall of 360 MW of Gull Island power. The table excludes the amount of unpaid dividends owing to NLH by the Gull Island Joint Venture corporation at the end of the PPA period. Further analysis should also consider the potential impact of MOU financial benefits on federal equalization payments to Newfoundland and Labrador.

The IRC estimated that the overall financial benefit to the provincial treasury of the MOU is approximately \$30.9 billion dollars in net present value terms (2024 dollars) after rate mitigation costs, which were excluded from the GNL-published nominal benefits of the MOU. Rate mitigation occurs when government provides subsidies to consumers to help offset the impact of steep increases in electricity prices and bills. The government stated that it would implement rate mitigation for residential and general customers, and industrial customers would see no immediate rise in rates.<sup>26</sup>

The vast majority of the financial benefit is attributable to the new Churchill Falls PPAs (\$26 billion after rate mitigation), with payments arising from HQ accounting for \$23 billion (2024 dollars). Gull Island and the NLH transmission projects have net present values of \$4.1 billion and \$0.8 billion, respectively. The CF Upgrades and CF Expansion projects have minimal NPVs.

The IRC also estimated the net present value of the MOU for two distinct periods, from 2025 to 2041 (that is, up until the year in which the current Churchill Falls PPA will expire) and from 2042 to 2075 (and 2025 to 2085 for the Gull Island project). Between 2025 and 2041, the MOU has an estimated net present value (2024 dollars) of \$9.2 billion (after rate mitigation) for the provincial treasury. Most of this amount (\$7.3 billion NPV in 2024 dollars) derives from HQ's payments to CFLCo. Hence, \$7.3 billion NPV is the estimated financial benefit at risk to the treasury before 2042 if the CF PPA for HQ contemplated in the MOU is not finalized in Definitive Agreements.

### **How the \$33.8 Billion Value in Schedule F and the Schedule G Payments Were Determined and Why**

Schedule F's \$33.8 billion (2024 dollars) is the negotiated target present value of the volumes of energy allocated to HQ during the term of the CF PPA. In addition, NLH will make revenue payments to CFLCo for the power it purchases, which are forecast to total \$12.1 billion (PV, 2024 dollars) over 51 years.<sup>27</sup> The present value of CFLCo's forecast revenues paid by HQ and NLH is thus \$45.9 billion.<sup>28</sup>

The IRC estimated that HQ's payments for Churchill Falls power are equivalent to a levelized cost of electricity of 3.8 ¢/kWh during the 2025 to 2041 period, and 16.7 ¢/kWh in the 2042 to 2075 period, which is close to HQ's estimated replacement cost of power. Details of this calculation are in Appendix 5. The lower cost of power in the 2025 to 2041 period reflects the

26 <https://www.ourchapter.ca/files/NewfoundlandLabrador-Quebec-MOU-Briefing-Deck-Dec-12-2024.pdf>

27 GNL stated that the amount of NLH payments for CF power would be \$12.1 billion (PV) at [https://www.ourchapter.ca/files/OurChapter\\_WebResource\\_EnergyAllocationBreakdown.pdf](https://www.ourchapter.ca/files/OurChapter_WebResource_EnergyAllocationBreakdown.pdf).

28 The nominal value of NLH's payments for Churchill Falls power under the MOU is estimated to be \$65 billion as presented in the GNL summary table "Financial Benefit to Newfoundland & Labrador Treasury," which is published on OurChapter.ca, plus \$17.6 billion in revenue payments for the two 250 MW expiring block volumes. This latter amount was omitted from the GNL summary table and calculation of the nominal \$260 billion overall total forecast payments (\$195 billion from HQ, \$65 billion from NLH).

negotiated weights on each of the CF pricing blocks described in Schedule F, three of which relate to regulated electricity rates or replacement costs in Québec, and one of which relates to an external energy market price. Before 2041, most of the negotiated weights are on Québec-regulated electricity rate and replacement costs, which has one block at very low energy prices in the first 17 years, with only a relatively small weight placed on the external energy market block. The reason this weighting was agreed was in part to mitigate the impact of sharp rate increases on customers in Québec and NL.

In the 2025 to 2041 period, the financial benefit to the GNL treasury from HQ's Churchill Falls payments (see Table 1, above) is \$7.3 billion net present value (2024 dollars). This amount can be interpreted as NLH's share of the total residual value for HQ of the existing PPA (in which the price HQ pays for power is significantly lower) over the remaining 17 years of its term (2025 to 2041). HQ retains the majority of the total residual value associated with the existing CF PPA.

Schedule G is the agreed schedule of nominal annual payments by HQ to CFLCo which, when discounted at the negotiated 5.822% rate, equals \$33.8 billion (PV, see Appendix 4). There are many possible permutations of nominal payments over the 51-year PPA term that would also give a net present value of \$33.8 billion. Schedule G was negotiated as a sequence of payments in each year, with the desire by HQ to gradually phase in power prices and for NLH to target an increase of \$17 billion (nominal) in benefits to the provincial treasury prior to 2042.

The majority of HQ's total nominal payment amount occurs in the last 15 years of its new PPA, after 2061. Less than a quarter of the nominal total is scheduled to be paid in the first half of the PPA term (before 2052). This delays the financial benefits of the new PPA to the province and exposes the value of the payments to inflation risk in comparison to a schedule where payments are distributed earlier within the PPA term. In the opinion of the IRC, all else being equal, bringing the payments in Schedule G forward in time, and reducing the total nominal amount while retaining the \$33.8 billion present value, would be in the public interest. Notably, by the end of the proposed new PPA term, the CF facility will be over 100 years old, which could result in operational risk. In the opinion of the IRC, the profile of HQ's Schedule G nominal payment amounts is not reasonable and creates financial risks for GNL.

### **Revenues and Benefits of the New Development Projects**

Revenues and benefits for the new development projects were presented by the government in purely nominal terms. The IRC finds that the government's claims about the nominal revenues for the new development projects were reasonably stated. However, annual revenues for the GIJV project are not sufficient to cover true costs for the first 45 years of the PPA.

The IRC was provided the nominal payments and the present value amounts (2024 dollars) of the forecast revenue payments and financial benefits to GNL for the new development projects (see Table 3).

**Table 3 – Financial Payments and Benefits of the New Development Projects (\$millions)**

<b>Nominal and Net Present Values of Payments and Benefits</b>	<b>Gull Island</b>	<b>CFX</b>	<b>CFU</b>	<b>NLH Transmission</b>	<b>Total</b>
Nominal revenue payments by HQ and NLH	106,814	13,452	5,823	13,074	139,163
NPV of payments (2024 dollars)	15,766	2,308	1,157	2,155	21,386
NPV of financial benefits to GNL	4,125	68	0	820	5,013

Nominal revenues of the new development projects are affected by the MOU stipulation that pricing terms deliver a 2% per annum escalation of revenue over the term of the PPAs. To accomplish this, prices during much of the PPA term are artificially low such that revenues do not fully cover total costs. The IRC finds that the revenue shortfall results in earned but unremitted dividends and outstanding debt and equity balances at the end of the PPAs. Consequently, the forecast financial benefits to the province from the new development projects are not reasonable because revenues do not fully cover true costs for 45 years, and therefore the earned dividends will not have been remitted to the province prior to the end of the PPAs.

**(c) whether the sufficiency of water rental or royalties, or both, were or should have been considered**

The MOU leaves water management and water rental issues to the yet-to-be negotiated Definitive Agreements, so the sufficiency of these matters is not known. NLH has performed an assessment of the existing water rental and royalty regime and of alternatives for both Churchill Falls and Gull Island. In the opinion of the IRC, it provides appropriate guidance for the settlement of these issues.

- (d) whether claims about how many full-time jobs would be created for the residents of the province were based upon reasonable current cost estimates and how this number compares to the estimated total number of jobs that would be created in the province**

In 2024, the GNL Department of Finance estimated the jobs that would be created by the development projects using current preliminary construction cost estimates provided to it by NLH. Job and GDP impact estimates were provided for both the construction periods of these projects and for construction of identified potential new mining projects in Labrador.

NLH and HQ have begun to develop together the supplier procurement policies that will result in the local benefits described.

The 2024 GNL Department of Finance estimates did not include employment and GDP impacts from ongoing production and operations of the identified new mining projects. The overall provincial job and GDP benefits arising from the MOU are thus likely to be significantly greater than initially estimated. The section on Economic Growth Benefits in this report provides more information on this topic.

- (e) whether alternative markets for power were considered, including pursuing opportunities with entities other than Hydro-Québec, concerning both existing and potential hydropower assets on the Churchill River**

One of the expert advisors for NLH studied export markets that Churchill Falls power could potentially reach for direct sale of electricity outside of and through Québec. There is significant demand in external markets for the clean, capacity-based power that Churchill Falls provides, and large customers can make long-term energy supply plans extending up to 25 years. Gaining transmission access to external customers and markets through Québec, however, is an uncertain prospect for NLH because of existing firm bookings on transmission lines and a high level of capacity utilization. One way to resolve such uncertainty is for a power generator to submit a firm transmission booking request based on a contract with a U.S.-based customer for future delivery of power that previously flowed into Québec but that would no longer be serving HQ customers. This matches the approach used by NLH to secure its current 265 MW of transmission access to U.S. markets.

██████████ recognized the complexities of gaining transmission access through Québec for large amounts of CF power, but it recommended investigating export sales in order to be fully informed and up to date. The IRC did not receive evidence that NLH has sought agreements with specific potential major customers in the United States or other markets for power delivery after 2041, although 2041 is within the planning time horizons of large customers requiring long-term energy security.

Another important market for Churchill River power is within NL, notably the demand from energy-intensive industrial customers. NLH identified probable short-term to medium-term power demand in Labrador based on its discussions with mining and industrial customers about their projected power needs over the next decade. However, the IRC did not find evidence that GNL had assessed long-run industrial economic development scenarios, which would determine long-run power needs, before the MOU negotiations commenced. Such assessments could have informed NLH's negotiations with HQ over long-term allocations of Churchill Falls power volumes in the new CF PPA.

In the absence of extensive evaluation of these alternative markets, the IRC finds that NLH under-valued the scenario in which a new PPA with HQ is not reached – which could have made NLH more willing to accept a new deal – and under-valued the importance of obtaining greater long-term access to Churchill Falls power beyond 2041.

**(f) whether the economic opportunities and social benefits related to the proposed development projects for Churchill Falls and Gull Island were considered independently and whether more benefits could be achieved by developing them separately**

The economic opportunities and social benefits associated with the development projects at Churchill Falls and Gull Island were assessed independently in terms of their contributions to employment, labour income and GDP from the construction of each project. The evaluation of these economic benefits was conducted by the GNL Department of Finance. Gull Island, being a significantly larger project than the CF Upgrades and CF Expansion, has larger estimated economic benefits.

NLH considers that the total economic benefits from the development projects would be greater if they were developed in a co-ordinated manner rather than separately. Transmission system planning, sizing, and routing can be more efficiently achieved when considering the developments as a whole. Isolated project development increases the risk of inefficiencies, capacity constraints, and sub-optimal investments. Coordinating the overlapping timelines for construction of each project can also reduce potential labour and supply-chain resource constraints.

**(g) whether there are any barriers to maximizing export opportunities**

The existing transmission infrastructure from Churchill Falls through Québec is owned by Hydro-Québec. It is the most direct and developed route connecting Churchill Falls to export markets in Canada and the United States. The transmission lines in Québec are currently used near capacity by HQ for energy consumption in the province and for power exported to

the United States and other markets (36 TWh of net exports in 2025).<sup>29</sup> This situation limits transmission availability for other power producers.

NLH, through its Power Marketing Division, exports a small amount of power through Québec (265 MW to the United States), which demonstrates that obtaining some access is feasible. NLH reports, however, that expanding power export opportunities via transmission through the province of Québec is currently limited because of the absence of additional transmission capacity.

NLH's expert advisors have indicated that gaining wheeling rights for additional large amounts of power through the province on the existing infrastructure could be possible in the future – but challenging. Because Hydro-Québec participates in energy markets in the United States, it is subject to that country's Federal Energy Regulatory Commission transmission market rules—including the requirement that HQ provide access on a non-discriminatory basis to market participants. If NLH had a firm power delivery agreement with a customer in the United States and an identified existing transmission route to deliver it (which included routing it through Québec), it could submit a transmission booking request to HQ that would be governed by these open access rules. In addition, the transmission service associated with HQ's two 250 MW blocks (which expire in 2050 and 2060) will become available in those years and be subject to open access transmission rules. This would enable NLH to request the transmission rights if it elected to export a portion of the Churchill Falls power supply to markets in the United States.

The IRC finds that future opportunities for NLH to export Churchill Falls power through Hydro-Québec's transmission system after 2041 are significant but complex and that they may be catalyzed through commercial discussions with potential customers who are seeking long-term power security.

The Labrador-Island Link (LIL) transmission line currently exports power from Muskrat Falls to the island of Newfoundland and on to eastern Canada. Its capacity of 900 MW is not sufficient to also accommodate significant power from Churchill Falls and the cost of constructing a second LIL could be prohibitively costly (the final cost of the LIL was \$5.8 billion).

29 Hydro-Québec states the amount of its exports on its website at <https://www.hydroquebec.com/clean-energy-provider/>

- (h) whether the proposed governance structures and agreements, ownership, equity participation and control mechanisms of hydropower assets on the Churchill River and Gull Island and related transmission projects ensure the province has control and is clearly the principal beneficiary of the energy resources of the Churchill River**

The IRC has interpreted the “principal beneficiary” of the energy resources of the Churchill River to mean that the province has access to sufficient amounts of power when needed in order to create optimal economic and financial benefits.

NLH will remain the majority owner of CFLCo with 65.8% of equity, and the province will thus obtain the majority of financial dividends resulting from the commercial operations of CFLCo. Corporate governance arrangements for CFLCo are specified in the Shareholders’ Agreement which, absent a new agreement, will expire in 2041. Under the Shareholders’ Agreement, NLH appoints the majority of CFLCo’s board members, giving it majority control through board decision-making. However, the CFLCo Shareholders’ Agreement provides HQ, the minority shareholder, with special decision rights, giving HQ effective control over certain major business matters of CFLCo, as discussed in the CF PPA section of this report. NLH and HQ agreed in the MOU to “modernize” governance arrangements for CFLCo, leaving specific terms to be determined in the Definitive Agreements. The IRC considers decisions about future governance arrangements of CFLCo to be a critical consideration in future negotiations.

NLH will be the majority (60%) owner of the proposed Gull Island joint venture (GIJV) corporation and thus will receive the majority of the financial dividends resulting from the commercial operation of the GIJV. The MOU does not specify a corporate governance structure for the GIJV but indicates that it will be based on the same principles as the agreed modernized CFLCo governance structure. As discussed in the Gull Island section of this report, the IRC considers that alternative ownership and control arrangements – besides the joint venture model – for developing and operating Gull Island should be comprehensively evaluated to ensure the province will be the long-run beneficiary.

NLH will be the 100% owner of the proposed transmission line within the province that connects Gull Island to Québec’s transmission system and will be the sole beneficiary of the financial returns on this asset.

The commercial terms of the PPAs in the MOU, which include proposed pricing mechanisms for power and related payment terms and agreed volume allocations for NLH and HQ, fundamentally determine the magnitudes of the forecast financial and economic benefits that the province is forecast to attain. These are discussed in previous sections of the report.

- (i) whether the pricing structures for both Churchill Falls (Labrador) Corporation Limited and the Gull Island Joint Venture power and the allocation of energy and capacity are consistent with the province being the principal beneficiary of the energy resources of the Churchill River**

As the majority shareholder of CFLCo, NLH will receive 65.8% of the forecast financial dividends arising from the new CF and CFX PPAs. Similarly, NLH as the majority shareholder of the GIJV will receive 60% of dividend payments to shareholders arising from the GI PPA.

As discussed in previous sections of this report, there are significant limitations to the proposed pricing and payment structures and other commercial arrangements for both the Churchill Falls and Gull Island PPAs that reduce the financial benefits to the province and that create financial risks.

Based upon the IRC's research and analysis, the province will not be the main beneficiary of the economic benefits stemming from Churchill River energy since most of the power under the MOU will be exported outside the province rather than retained in-province for usage by industrial customers. 70% or more of CF power and 90% or more of GI power will be sold to HQ, so Québec has the opportunity to leverage this power for industrial development and to gain the associated provincial economic benefits. This is likely to continue the constraint in NL on industrial development under the 1969 CF PPA power allocations. As discussed in the Economic Growth Benefits of Churchill River Power section in this report, economic benefits are less predictable and certain than financial benefits and they require co-ordinated government support. Whether the province wishes to become the principal beneficiary of the economic benefits of the energy resources of the Churchill River is a strategic decision for the government to consider in the context of a long-term economic development strategy.

- (j) whether the balance between capacity and energy production was properly considered to ensure a reliable and cost-effective energy system for the benefit of the people of the province**

CFU and CFX are considered by NLH and HQ to be capacity projects that will be used primarily to provide power on demand during periods when more power is needed rather than a way to deliver a more continuous supply of baseload energy, which is the case for the existing Churchill Falls plant and the proposed Gull Island plant. As such, CFU and CFX contribute toward improved energy-system reliability. As the primary off-taker of power from Churchill Falls, Hydro-Québec will be the main beneficiary of the new capacity and enhanced system reliability that CFU and CFX provide. Additional capacity is particularly valuable to Hydro-Québec during the winter season when power demand peaks in Québec.

The actual costs of CFX and the budgeted costs of CFU will be recovered through an annual toll paid (per MW-year) by the off-takers that will be independent of the incremental energy produced by these projects. Costs of Gull Island will be recovered from off-takers through long-term power purchase agreements that specify the pricing model. Hydro-Québec will be the main off-taker, committing to purchase at least 90% of Gull Island energy production. As noted by the IRC, the financial benefits to the province of the CFU and CFX projects are minimal, and if financed on CFLCo's balance sheet, will burden the company with debt.

From a reliability perspective, NLH and HQ have jointly studied potential hydraulic interactions and operational impacts on the Churchill River and downstream facilities that would be associated with CFU and CFX. An early hydraulic study identified that CFU and CFX would not materially affect annual energy production at Muskrat Falls but that there could be seasonal and operational impacts that require further detailed evaluation. Construction of the CFX project, which is in close proximity to the existing CF facility (250 metres), involves complex engineering and planning and exposes the CF plant to operational risks. NLH has reported to the IRC that it is aware of the need to comprehensively identify and mitigate CFX risks, and that the cost of mitigation could affect the economic viability of the project.

**(k) whether appropriate consideration was given to how changes to the Churchill River water management agreement will impact Muskrat Falls operations and whether the compensation for any such impact is fair and reasonable**

NLH and HQ completed a joint study in 2022 to assess potential hydraulic interactions and operational impacts on both the Churchill River and downstream facilities that would be associated with the upgrade and expansion of the Churchill Falls facility. The study identified key uncertainties and the need for further analysis of potential impacts—including how the construction and operation of a facility at Gull Island would affect power production at Muskrat Falls—and of mitigation options.

NLH identified through previous study work a significant reduction of flows at Muskrat Falls during the impoundment of the Gull Island reservoir. This will limit Muskrat Falls' ability to generate energy during this period.

The MOU contains provisions to protect Muskrat Falls perpetually. Section (c) of the MOU's Schedule K ("Water Management Principles") is intended to ensure that Muskrat Falls will have sufficient water to reliably meet customer commitments and to comply with environmental regulations. As well, in section 2.6 of the MOU, the parties agree to take into consideration "customary provisions in the Definitive Agreements to account for such impacts on CF and Muskrat Falls."

The specific water management and compensation details required to achieve these provisions remain to be negotiated by NLH and HQ.

The contemplated changes to and construction of the facilities operating upstream on the Churchill River will affect the operation of Muskrat Falls. Until the Definitive Agreements are complete, the IRC cannot determine if any compensation resulting from them will be fair and reasonable, given that there will be some long-term impact on the downstream facilities.

- (l) whether the proposed contract duration specified for each of the new Churchill Falls Power Purchase Agreements, the Churchill Falls Expansion Power Purchase Agreements and the Gull Island Power Purchase Agreements, and the duration of the Exclusivity Agreement, are in the best long-term interest of the people of the province, and in the alternative, what contract duration would be appropriate given the current energy market dynamics**

The proposed new Churchill Falls PPAs' term (51 years) effectively extends the current arrangements by about 34 years. Within the electricity sector, however, it is not uncommon for PPAs to be shorter than 25 years (unless driven by financing needs). Given the difficulty of making accurate long-term energy demand forecasts—particularly in light of uncertainties around AI and data centres, electrification pathways, geopolitics/national security policy, and emerging energy technologies—the IRC finds that a shorter contract term than what is contemplated in the MOU would offer meaningful advantages.

Expert advisors for NLH have recommended aligning the PPA and amortization periods for the CFX and GI projects. The IRC does not opine on whether 50-years or 65-years is the appropriate length. With a shorter duration generally being preferred, the pricing model and the amortization period should be aligned such that the asset has positive value in the market at the end of the PPA term.

In the opinion of the IRC, the 15-year exclusivity period for GI is long compared to standard industry practice, especially as it does not begin until 2029. A shorter period would be more appropriate.

**(m) whether sufficient contingency was included in the cost estimates for the new developments and transmission assets to reflect increasing costs of labour and materials**

NLH advised the IRC that cost estimates for the new developments are preliminary Class 5 estimates and have not been agreed to by HQ. Class 5 is the concept-stage cost-estimation classification with an accuracy probability (P-level) of between -50% and +100%. The final report of the Muskrat Falls Inquiry included a recommendation that the province should not undertake a large capital project with a P-level lower than 85% (which indicates a probability of a cost over-run of no more than 15%).

**The IRC concludes that until cost estimates for the new developments meet the required P85 level of confidence, it is not possible to determine whether contingencies will be sufficient.**

**(n) whether the proposed commercial terms and pricing mechanisms provide adequate compensation to the province, as principal beneficiary, and limit its exposure to acceptable levels of construction and financial risk**

As described before, the IRC has interpreted “the principal beneficiary” of provincial resources to mean that the province has access to sufficient amounts of power when needed in order to create optimal economic and financial benefits.

With respect to construction risk, Hydro-Québec will lead the design and construction of the Gull Island project, with full decision-making authority through to its completion, as stated in the MOU. If required, HQ will provide a completion guarantee. Current estimates for Gull Island construction costs are between \$15 billion and \$25 billion (nominal). The project is expected to be financed by 25% equity and 75% debt, amortized over 65 years. Total capital costs including over-runs will be amortized over 65 years and will be passed on to the off-takers through the cost-plus pricing mechanism. Approximately 23% of costs, including any over-runs, will need to be recovered from subsequent off-takers as those costs are not recovered in the term of the initial PPA. It is not certain that pricing in subsequent PPAs will allow for full cost recovery.

Hydro-Québec will lead the design and construction of the Churchill Falls Expansion project, with an estimated cost of \$4.6 billion (nominal), and have full decision-making authority. If required, HQ will provide a completion guarantee. The expansion is expected to be financed by CFLCo with 100% debt to be amortized over 65 years. The associated PPA has a term of 50 years, but the capital costs including over-runs will be amortized over 65 years. Approximately 23% of total project costs, including any over-runs, will not be paid by the off-takers through the proposed cost-plus pricing mechanism in the initial PPA. The IRC was informed that

geotechnical and other technical issues could arise with CFX that would result in risks to the existing CF plant. The technical and financial feasibility of CFX, including risk mitigation measures, will need to be carefully evaluated before the project is sanctioned.

NLH will lead in the development of the NL transmission lines from Gull Island to the new HQ delivery point, and from Gull Island to the existing Churchill Falls facility. The estimated project cost is \$3.6 billion (nominal), and NLH will wholly own the asset. NLH will be responsible for all construction and financing risk. NLH will receive a usage payment calculated by the regulated cost-of-service pricing model once Gull Island come into service, the terms of which are to be negotiated. Any cost over-runs will be passed onto the off-takers, subject to terms in the Definitive Agreements. In addition, to utilize the power allocated to NLH in the MOU, an additional transmission line will be required from Churchill Falls to Labrador West. There is a current proposal, not related to the MOU, involving NLH and a consortium of companies to make capital contributions toward the construction of this transmission line, which has an estimated construction cost of \$2.5 billion.

Construction of the Churchill Falls Upgrades project will be led by either CFLCo or NLH, estimated at \$1.9 billion (nominal), and will be financed 100% by CFLCo debt. Any cost over-runs will be shared by the shareholders based on their ownership percentages. If commissioning is delayed, volume shortfalls will be absorbed 50/50 by the two firms, however NLH will bear a disproportionate amount of construction risk (65.8% vs 34.2%).

In the IRC's opinion, the province does not have full protection from construction cost over-run risks for the Gull Island project, because of the mismatch in PPA and depreciation periods. While HQ will be responsible for arranging financing, the debt will be incurred by the Gull Island Joint Venture, the costs of which will be passed through to off-takers. Further, the province, through NLH, will have financial risk associated with raising the capital required to fund the construction costs of NL transmission assets and any over-runs for CFU, as the province will need to borrow before revenues are generated by the projects.

As discussed in previous sections of this report on individual projects, there are financial risks to the province arising from pricing complexities and deferred payments.

**(o) whether the financial, economic and social value to the province ensures current and future generations will be the principal beneficiaries of the Churchill River resource**

The Executive Summary and Conclusions sections of the report provide the IRC's views on whether the financial, economic and social value to the province of the MOU ensures current and future generations will be the principal beneficiaries of the Churchill River resource. In summary:

With respect to the proposed Churchill Falls PPAs, the province will realize new economic and financial benefits in the period leading up to 2041. After 2041, however, the limited availability for NLH of additional power from Churchill Falls or the new development projects is likely to restrict the province's longer-term economic growth. Financial benefits are constrained by complex and uncertain PPA pricing and by the deferral of payments under the contemplated revenue structure. In addition, if NLH is unable to obtain transmission access through Québec or alternative routes, the province's ability to capture fair market value for Churchill Falls power in external markets after 2041 will remain limited. Future governance arrangements for CFLCo should ensure that the majority shareholder has the appropriate level of control and that minority shareholder rights are protected.

The Churchill Falls Upgrades project is not expected to deliver meaningful direct financial benefits to the province due to the proposed financing structure. It will, however, provide modest economic benefits during construction. If the project places additional debt on CFLCo, it introduces risk to the corporation and creates a lost opportunity for the province in the form of reduced ability to extract additional dividends.

Similarly, the Churchill Falls Expansion project offers limited direct financial benefit to the province, while generating economic benefits through construction activity. The project could place a significant debt burden on CFLCo, increasing corporate risk and reducing dividend capacity. In addition, the project features a mismatch between the amortization period and the PPA term, such that full costs cannot be recovered within the PPA period. Construction activity may introduce geotechnical risk to the existing Churchill Falls facility.

The Gull Island project will provide significant economic benefits through construction activity and by expanding access to power that could support industrial development. However, the financial benefits relative to the scale of the investment are modest. As structured, the project raises several concerns, including the mismatch between amortization and PPA terms, the inability to recover full costs over the initial PPA period, a development fee that appears low relative to value, and structural issues related to ownership and governance.

Finally, the NLH transmission line project offers limited direct financial benefits but meaningful economic benefits through construction. Relative to the amount of total new generation contemplated in the development projects, there is a risk of transmission congestion that could constrain NLH's ability to move power beyond Québec into other external markets.

The IRC concludes that, despite providing financial and economic benefits, the MOU in its current form is not in the best long-term interest of the people of the province. The Government of Newfoundland and Labrador has the opportunity to work toward a revised agreement with HQ that would serve the public interest.

# Appendix 1 – Order Establishing the Inquiry



## The Newfoundland and Labrador Gazette Extraordinary

PART II  
PUBLISHED BY AUTHORITY

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ST. JOHN'S, MONDAY, DECEMBER 15, 2025

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NEWFOUNDLAND AND LABRADOR  
REGULATION

NLR 110/25



**NEWFOUNDLAND AND LABRADOR  
REGULATION 110/25**

*Inquiry Respecting the Memorandum of Understanding for a New  
Long-Term Energy Purchase and Development Initiative Between  
Newfoundland and Labrador Hydro and Hydro-Québec Order  
under the  
Public Inquiries Act, 2006  
(O.C. 2025-360)*

*(Filed December 15, 2025)*

Under the authority of section 16 of the *Public Inquiries Act, 2006*, the Lieutenant-Governor in Council makes the following Order.

Dated at St. John's, December 15, 2025.

Karen Stone KC  
Clerk of the Executive Council

**ORDER**

*Analysis*

- |                        |                         |
|------------------------|-------------------------|
| 1. Short title         | 5. Conduct of inquiry   |
| 2. Definitions         | 6. Powers               |
| 3. Inquiry established | 7. Minister responsible |
| 4. Terms of reference  | 8. Final report         |

*Inquiry Respecting the Memorandum of  
Understanding for a New Long-Term Energy  
Purchase and Development Initiative Between  
Newfoundland and Labrador Hydro and Hydro-  
Québec Order*

110/25

Short title	<p><b>1.</b> This Order may be cited as the <i>Inquiry Respecting the Memorandum of Understanding for a New Long-Term Energy Purchase and Development Initiative Between Newfoundland and Labrador Hydro and Hydro-Québec Order</i>.</p>
Definitions	<p><b>2.</b> In this Order</p> <p>(a) "Act" means the <i>Public Inquiries Act, 2006</i>;</p> <p>(b) "inquiry committee" means the persons appointed under section 3 to conduct the inquiry;</p> <p>(c) "minister" means the Minister of Energy and Mines; and</p> <p>(d) "Memorandum of Understanding" means the Memorandum of Understanding referred to in subsection 3(1).</p>
Inquiry established	<p><b>3.</b> (1) There is established an inquiry respecting the Memorandum of Understanding for a New Long-Term Energy Purchase and Development Initiative Between Newfoundland and Labrador Hydro and Hydro-Québec signed by Newfoundland and Labrador Hydro, Hydro-Québec, and Churchill Falls (Labrador) Corporation Limited.</p> <p>(2) The following individuals are appointed to conduct the inquiry:</p> <p>(a) Chris Huskilson, as chairperson;</p> <p>(b) Dr. Guy Holburn; and</p> <p>(c) Michael Wilson.</p>
Terms of reference	<p><b>4.</b> (1) The inquiry committee shall</p> <p>(a) obtain, review and analyze all relevant information and documentation, including the full text of the Memorandum of Understanding, related studies, draft term sheets and correspondence; and</p> <p>(b) determine whether the Memorandum of Understanding is in the best long-term interest of the people of the province.</p>

*Extraordinary Gazette*

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*December 15, 2025*

*Inquiry Respecting the Memorandum of  
Understanding for a New Long-Term Energy  
Purchase and Development Initiative Between  
Newfoundland and Labrador Hydro and Hydro-  
Québec Order*

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(2) In conducting the inquiry, the inquiry committee is encouraged to consider the following:

- (a) whether the negotiators representing Newfoundland and Labrador Hydro and the government of the province were given an appropriate mandate before beginning the negotiations with Hydro-Québec that resulted in the Memorandum of Understanding, and whether any such mandate was consistent with the final report of the Commission of Inquiry Respecting the Muskrat Falls Project, advice from the 2041 Churchill River Management Expert Panel and any other reports the inquiry committee considers relevant;
- (b) whether claims made about revenue the Memorandum of Understanding would generate, and the resultant forecasted benefits to the provincial treasury, were accurate and reasonable, including a review of how the total value of \$33.8 billion (on a net present value basis) in Schedule F of the Memorandum of Understanding, total forecasted payments to be made to Churchill Falls (Labrador) Corporation Limited by Hydro-Québec and how the annual schedule of forecasted payment amounts in Schedule G of the Memorandum of Understanding were determined and why;
- (c) whether the sufficiency of water rentals or royalties, or both, were or should have been considered;
- (d) whether claims about how many full-time jobs would be created for the residents of the province were based upon reasonable current cost estimates and how this number compares to the estimated total number of jobs that would be created in the province;
- (e) whether alternative markets for power were considered, including pursuing opportunities with entities other than Hydro-Québec, concerning both existing and potential hydropower assets on the Churchill River;

- (f) whether the economic opportunities and social benefits related to the proposed development projects for Churchill Falls and Gull Island were considered independently and whether more benefits could be achieved by developing them separately;
- (g) whether there are any barriers to maximizing export opportunities;
- (h) whether the proposed governance structures and agreements, ownership, equity participation and control mechanisms of hydropower assets on the Churchill River and Gull Island and related transmission projects ensure the province has control and is clearly the principal beneficiary of the energy resources of the Churchill River;
- (i) whether the pricing structures for both Churchill Falls (Labrador) Corporation Limited and the Gull Island Joint Venture power and the allocation of energy and capacity are consistent with the province being the principal beneficiary of the energy resources of the Churchill River;
- (j) whether the balance between capacity and energy production was properly considered to ensure a reliable and cost-effective energy system for the benefit of the people of the province;
- (k) whether appropriate consideration was given to how changes to the Churchill River water management agreement will impact Muskrat Falls operations and whether the compensation for any such impact is fair and reasonable;
- (l) whether the proposed contract duration specified for each of the new Churchill Falls Power Purchase Agreements, the Churchill Falls Expansion Power Purchase Agreements and the Gull Island Power Purchase Agreements, and the duration of the Exclusivity Agreement, are in the best long-term interest of the people of the province, and in the alternative, what contract duration would be appropriate given current energy market dynamics;

*Inquiry Respecting the Memorandum of Understanding for a New Long-Term Energy Purchase and Development Initiative Between Newfoundland and Labrador Hydro and Hydro-Québec Order*

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- (m) whether sufficient contingency was included in the cost estimates for the new developments and transmission assets to reflect increasing costs of labour and materials;
- (n) whether the proposed commercial terms and pricing mechanisms provide adequate compensation to the province, as principal beneficiary, and limit its exposure to acceptable levels of construction and financial risk; and
- (o) whether the financial, economic and social value to the province ensures current and future generations will be the principal beneficiaries of the Churchill River resource.

(3) In addition to the matters the inquiry committee is encouraged to consider under subsection (2), the inquiry committee may review, analyze and comment on any matter related to the Memorandum of Understanding it considers necessary to determine whether the Memorandum of Understanding is in the best long-term interest of the people of the province.

Conduct of inquiry

5. (1) The following mechanisms may be used in the conduct of the inquiry:

- (a) interviews and surveys;
- (b) research studies;
- (c) inspections and investigations; and
- (d) submissions.

(2) The inquiry committee may commission any assistance it determine necessary including technical, financial, legal and energy market assistance.

Powers

6. For the purpose of conducting the inquiry, the inquiry committee

- (a) may receive evidence;

*Inquiry Respecting the Memorandum of Understanding for a New Long-Term Energy Purchase and Development Initiative Between Newfoundland and Labrador Hydro and Hydro-Québec Order*

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- (b) shall have the powers of a commission under section 9 of the Act to compel the production of testimony and evidence;
- (c) shall have the powers of a commission under section 10 of the Act to conduct inspections, and subsection 10(2) of the Act shall apply; and
- (d) shall have the powers of a commission under section 11 of the Act to apply for a warrant to search, and subsection 11(2) of the Act shall apply.

Minister responsible

7. The minister shall be the minister responsible for the inquiry.

Final report

8. (1) The inquiry committee shall deliver a final report to the minister and the Premier on or before April 30, 2026.

(2) The final report shall include

- (a) an executive summary;
- (b) an outline of the inquiry process; and
- (c) conclusions of the inquiry committee.

(3) The minister shall release the final report to the public.

(4) The final report shall not

- (a) contain privileged, commercially sensitive or any other information that may interfere with the current or future negotiating position of, or result in financial loss or harm to the province, Newfoundland and Labrador Hydro and their subsidiaries or Churchill Falls (Labrador) Corporation Limited; or
- (b) express any conclusions or recommendations regarding the civil or criminal responsibility of any person or organization.

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**Extraordinary Gazette Index**

<b>Title of Act and Subordinate Legislation made thereunder</b>	<b>CNLR or NL Reg.</b>	<b>Amendment</b>	<b>NL Gazette Date &amp; Page No.</b>
<b>Public Inquiries Act, 2006</b>			
Inquiry Respecting the Memorandum of Understanding for a New Long-Term Energy Purchase and Development Initiative Between Newfoundland and Labrador Hydro and Hydro- Québec Order	NLR 110/25	New	Dec. 15/25 p. 3

## Appendix 2 – Biographies of IRC Members

### **Chris Huskilson, FCAE, President and CEO of 5-H Holdings Inc (Chair)**

An engineer by training, Mr. Huskilson was President and CEO of Algonquin Power and Utilities Corp. from August 2023 until March 2025, during which time the company sold its renewables business and transitioned into a fully regulated electricity, gas, and water utility.

Mr. Huskilson was President and CEO of Emera Inc for 14 years. During this period, the business grew from \$3 billion in assets to \$30 billion and developed the Maritime Link, which provides NLH with access to the maritime provinces' electricity market.

In recent years, Mr. Huskilson has been very active in the Atlantic Canadian startup ecosystem. He was a founding partner at CDL Atlantic, a founding member of Canada's Ocean Supercluster, a founding director of Endeavor Canada, and he has been a mentor and investor in startup companies.

A life member of the Association of Professional Engineers of Nova Scotia and a Fellow of the Canadian Academy of Engineering, Mr. Huskilson has served on many for-profit and not-for-profit boards of directors. He is past-chair of the Canadian Electricity Association, past-chair of the Greater Halifax Partnership, and past-chair of the Energy Council of Canada.

Among his honours are membership in the Nova Scotia Business Hall of Fame, being named the Energy Person of the Year, receiving the Catalyst Canada Award for advancement of women in the workplace and the F. H. Sexton Gold Medal for Engineering.

Mr. Huskilson holds a Bachelor of Science in Engineering, Master of Science in Engineering, and Doctor of Science, Honoris Causa, from the University of New Brunswick.

### **Guy Holburn, PhD**

Guy Holburn is Professor of Business, Economics and Public Policy at the Ivey Business School, University of Western Ontario. His areas of expertise are corporate governance, regulation, and business strategy, with a focus on the energy and utilities sectors. He has published widely in peer-reviewed academic journals, and he has authored numerous reports on provincial and federal energy policies.

Dr. Holburn is the founder and former Director of the Ivey Energy Policy and Management Centre, Canada's leading university-based centre for applied research on energy sector policy. He is also a director of the board of London Hydro, a Canadian utility, a board member of the Alliance for Research on Corporate Sustainability, and a member of the Council for Clean and Reliable Energy.

Dr. Holburn has served as an expert consultant to corporations and governments in Canada and the U.S. He has provided advice on corporate governance, merger strategy, economic

impact assessments, competition policy, electricity regulation, pipeline regulation, and regional economic development strategy. He testified as an expert witness on utility regulation and Crown corporation governance at the Muskrat Falls Inquiry in 2018 and 2019.

Holburn teaches both degree and executive development programs at Ivey Business School. He holds a PhD and MA from the University of California, Berkeley, and a BA Hons. (First Class) from Cambridge University. Previously, Holburn worked for several years as a management consultant for Bain and Company in England and in South Africa, and for the California Public Utilities Commission.

### **Michael Wilson, CA, FCA**

During a professional career spanning more than 40 years, Mr. Wilson has served in several leadership positions with the global professional services firm Ernst & Young, including managing partner in St. John's and senior partner in the Toronto office leadership group.

Mr. Wilson has prepared and/or reviewed a significant number of commercial contracts and agreements relating to the formation of partnerships, joint ventures, and public offerings, and/or related to the purchase and sale of specific assets, business units, commercial entities, as well as examined related capital investments and various financing structures. He negotiated and executed a significant number of complex, multi-jurisdictional, multi-entity contractual agreements. He also completed numerous consulting contracts that included program development and evaluation, capital budgeting, risk management, and forensic audits. He has significant experience designing and deploying effective oversight mechanisms focused on critical corporate functions and initiatives.

Mr. Wilson served clients from many economic sectors, including power and energy, oil and gas, mining, technology, insurance, financial services, construction, fisheries, healthcare, and transportation. In addition, he has provided consulting services to all three levels of government (federal, provincial, and municipal), as well as to sovereign wealth funds and trade unions.

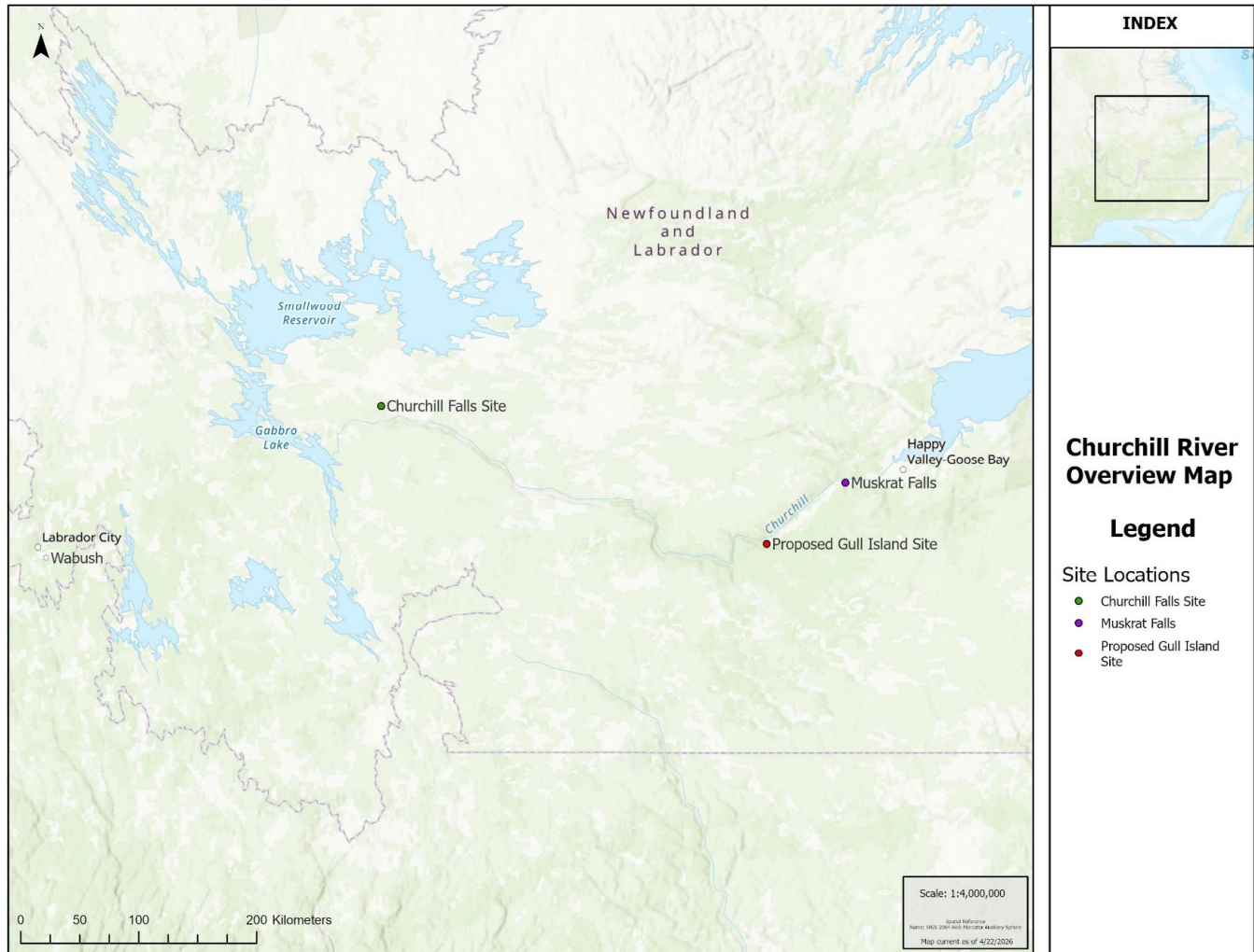
Mr. Wilson is also a veteran entrepreneur: he has owned and operated business ventures in professional services, as well as the outfitting, cable, service, construction, and entertainment industries.

A former president of both the St. John's Board of Trade and Rotary Club of St. John's East (Paul Harris Fellow), Mr. Wilson is a former director of numerous not-for-profit and charity organizations. He obtained his Chartered Accountant designation in 1978; in 2003 he was awarded a Fellowship in recognition of his outstanding service to the profession and the community.

Mr. Wilson retired from public practice with Ernst & Young in 2013; he continues to operate his professional services firm.

## Appendix 3 – Brief History of Churchill Falls

The Churchill Falls power generation facility is located on the Churchill River, which flows through Labrador in a generally eastward direction from Ashuanipi Lake into Lake Melville, where it empties into the Labrador Sea.<sup>30</sup> At 856 kilometres, it is the longest river in Atlantic Canada. Two hydroelectric facilities have been built on the Churchill River, at Churchill Falls (fully operational in 1974) and Muskrat Falls (fully operational in 2023). Gull Island is the location of a proposed third facility.



Source: GNL Department of Forestry, Agriculture and Lands

The existing Churchill Falls facility has a rated capacity of 5,428 MW, making it the second largest underground hydroelectric facility in North America. Its 11-powerhouse turbine-generator units were commissioned for full commercial operation between 1971 and 1974.

<sup>30</sup> The sources for this section are the following court judgments involving CFLCo: Supreme Court of Canada, May 3, 1984, June 9, 1988 and November 2, 2018; Newfoundland Court of Appeal, March 5, 1982 and October 25, 1985; Québec Court of Appeal, August 1, 2016 and June 20, 2019; Québec Superior Court, July 24, 2014 and August 8, 2016.

The facility's assets also include transmission lines that take power to both Québec and parts of Labrador, including Labrador West, Labrador East, and the local Churchill Falls area.

Water to power the generators comes from the Smallwood Reservoir, which has a surface area of 6,527 km<sup>2</sup> and is contained by rock-filled dykes. The Smallwood Reservoir is the fifth largest in the world, when measured by surface area.

### **Milestones in the Development of Churchill Falls**

The initial steps in the development of Churchill Falls occurred during the first dozen years after 1949, when Newfoundland joined the Canadian Confederation:

April 17, 1953	The British Newfoundland Corporation Limited (Brinco) incorporates; the shareholders are a consortium of Canadian and British investors led by N.M. Rothschild & Sons
May 20, 1953	The NL legislature passes a law authorizing Brinco to explore and develop the hydroelectric resources of Labrador's Hamilton River (renamed the Churchill River in 1965)
June 30, 1958	Brinco assigns the rights granted to it in the May 1953 legislation to Hamilton Falls Power Corporation Limited, a wholly owned subsidiary of Brinco (later renamed Churchill Falls (Labrador) Corporation Limited)
March 13, 1961	The NL legislature passes a law approving the issuance of a lease to CFLCo
March 23, 1961	CFLCo makes a proposal to HQ for the development of the Churchill Falls site
May 15, 1961	HQ rejects this proposal, stating it intends to pursue the development of its own hydroelectric opportunities in Québec
May 16, 1961	A renewable 99-year lease is signed that gives CFLCo rights to the exclusive use of the watershed of the Churchill Falls site for the generation of hydroelectric power, as well as the right to transmit power throughout NL, and to export power from NL

In 1965, negotiations between CFLCo and Hydro-Québec resumed, and on October 13, 1966, the two parties signed a 21-page Letter of Intent to jointly develop the Churchill Falls site.

The Letter of Intent provided for a 40-year contract with an option to renew in favour of HQ, with terms to be mutually agreed upon. CFLCo would construct the facility, and HQ would build the transmission lines to Québec. The Letter of Intent also stipulated that HQ would

be required to purchase in excess of 85% of the power produced by the facility during the contract's first 40 years. This power would be bought on a take or pay basis at fixed prices that would decrease every five years, amounts to be calculated based on the cost of constructing the facility. The Letter of Intent contained no escalation or reopener clause that would allow for increasing HQ's purchase price if market prices changed.

CFLCo began work at the construction site within 15 days after the Letter of Intent was signed.

During construction, the project costs increased unexpectedly. CFLCo was unable to obtain necessary financing and, with Brinco unable to provide financial assistance, CFLCo edged close to bankruptcy.

Meanwhile, in the lead-up to signing the final "Power Contract," HQ required the addition of new terms and conditions; these included a renewal clause of 25 years at the end of the 40-year term at a reduced price of 2 mills per kilowatt hour (kWh)—lower than the price HQ would be paying in the final years of the initial term.

Because of its precarious financial position, CFLCo accepted these requirements. In exchange, HQ agreed to assume certain additional financial risks, including a guarantee of the payment of cost over-runs for the project. It also injected \$115 million into the project budget.

The HQ commissioners and the CFLCo board of directors approved the Power Contract in June 1968; it was signed almost a year later, on May 12, 1969. It stipulated that HQ would purchase in excess of 85% of the power produced at the facility for 40 years beginning in 1976, when construction was then scheduled to be completed, to be followed by an automatic renewal for an additional 25 years: 2016 to August 31, 2041.

The fixed base rates for the initial 40-year term as outlined in the Power Contract (article 8.1) were:

- First 5 years 2.7734 mills per kWh
- Next 5 years 2.7110 mills per kWh
- Next 5 years 2.6591 mills per kWh
- Next 10 years 2.5449 mills per kWh
- Thereafter 2.3787 mills per kWh

In addition, these rates were to be adjusted by applying a mathematical formula that would be based on the final capital cost of the project. That cost was eventually fixed at \$900 million by an agreement of the parties on December 21, 1987. HQ also agreed to provide additional

financial support for the project, including advancing funds to CFLCo to cover its loan payments.

CFLCo was entitled to recapture 300 MW of power for provincial requirements under the Power Contract, and an additional 225 MW to supply its subsidiary, Twin Falls Power Corporation.

Both the CFLCo board of directors and the government of NL were fully aware of all the negotiations and documents relating to the Power Contract before it was signed.

The nature of the Power Contract can be summarized simply: in exchange for the certainty provided by a long-term, reliable purchaser of power, together with employment and other economic benefits during the construction phase, CFLCo agreed to sell Churchill Falls power to HQ at fixed prices over a period of 65 years (1969 to 2041), with no adjustment to reflect inflation or operating cost increases.

### **The Guaranteed Winter Availability Contract**

By the mid-1990s, CFLCo was in financial distress because the fixed pricing structure of the power contract did not provide sufficient revenue to cover its operating expenses.

On June 18, 1999, CFLCo and HQ signed the “Guaranteed Winter Availability Contract” (GWAC), which took effect retroactively to November 1, 1998. The GWAC provided urgently required revenue to CFLCo for ongoing expenses, such as maintenance of the facility. Under this contract, CFLCo agreed to provide HQ with 682 MW of additional power between November and March every year until August 31, 2041, in exchange for substantial additional revenue that would assure the corporation’s financial stability and enable it to pay dividends to its shareholders.

The GWAC did not alter the terms of Power Contract. It was signed on June 18, 1999, the same day the Shareholders’ Agreement was signed. The Shareholders’ Agreement gave HQ, CFLCo’s minority shareholder, veto rights over certain important corporate decisions.

### **Early Initiatives to Develop Gull Island**

In 1998, NL Premier Brian Tobin announced a plan to enter negotiations with Québec for the development of a power generating plant at Gull Island, the expansion of the Churchill Falls facility, and the construction of transmission lines in both provinces. These negotiations did not result in an agreement.

In 2002, NL Premier Roger Grimes announced a non-binding agreement with Québec for a hydro development at Gull Island. This initiative also did not result in an agreement.

## **NL's Legal Initiatives to Obtain a Fair Price for Churchill Falls Power**

In the early 1970s, the price of electricity increased significantly, partly because of a sudden increase in crude oil prices following a 1973 oil embargo placed by some oil producing countries. The situation shone a bright light on the fundamental problem with the Churchill Falls Power Contract: the omission of any escalation or reopener clause through which the price for power that HQ paid to CFLCo could be increased to reflect cost increases or market pricing changes.

Beginning in 1976, the government of Newfoundland and Labrador mounted several initiatives in the Courts with the objective of obtaining a more equitable share of the significant profits (and other economic benefits) that HQ was receiving because of the terms in the Power Contract.

### **The Recall Case**

In August 1976, the NL government issued an Order in Council demanding that CFLCo supply the province with an additional 800 MW of power, starting on October 1, 1983. CFLCo refused, stating it could not comply because of the terms of the 1969 Power Contract and financing obligations. The impasse was then referred to the Courts of both NL and Québec.

Ultimately, CFLCo's right to refuse the government's demand was upheld by the Supreme Court of Canada in a judgment issued on June 9, 1988.

### **The Water Rights Reversion Case**

In December 1980, The Upper Churchill Water Rights Reversion Act received Royal Assent after passage by the NL legislature. The act's purpose was to provide for the reversion to NL of unencumbered ownership and control, in relation to the 1961 water rights lease to CFLCo.

In February 1981, Government referred the Reversion Act to the Court of Appeal of Newfoundland and Labrador for an opinion on its constitutional validity. The Court of Appeal decided that the Reversion Act was constitutionally valid legislation. The Supreme Court of Canada disagreed, ruling that the pith and substance of the Reversion Act was to interfere with the rights of HQ outside the territorial jurisdiction of NL and was, therefore, not constitutionally valid legislation.

### **The Good Faith Case**

On November 25, 2013, CFLCo filed a memorandum in the Québec Superior Court seeking an Order that the Power Contract be renegotiated, specifically in a way that replaced the fixed rate with a new and higher rate, on the basis that HQ had an ongoing duty to CFLCo to co-operate and act in good faith with respect to the Power Contract.

CFLCo's request was denied by the Québec Superior Court in 2014, by the Québec Court of Appeal in 2016, and by the Supreme Court of Canada in 2018.

### **The 2016 Contract Renewal Case**

The expiry date of the initial 40-year term of the Power Contract was August 31, 2016; the start date of the 25-year automatic renewal term began the next day, on September 1, 2016.

CFLCo and HQ disagreed on the interpretation of several important clauses in the 1969 Power Contract with respect to the 25-year renewal term. The CFLCo position was that there were material changes in its obligations to supply power to HQ in the 25-year term. HQ's position was that there were no material changes. In July 2013, HQ asked the Québec Superior Court for clarification, and the Superior Court accepted HQ's position.

CFLCo appealed to the Québec Court of Appeal with partial success. In a June 20, 2019, judgment, the Québec Court of Appeal decided that HQ was capped at an annual fixed amount of power during the 25-year renewal term. In addition, and subject to certain qualifications, CFLCo had the right to sell power in excess of the capped amount provided that it satisfied its commitments to HQ.

This case was not appealed to the Supreme Court of Canada.

### **Churchill Falls (Labrador) Corporation Limited: Corporate Structure and Governance**

Churchill Falls (Labrador) Corporation Limited owns the existing hydroelectric facility at Churchill Falls. Since November 7, 1975, CFLCo shares have been divided between two entities: Newfoundland and Labrador Hydro (65.8%) and Hydro-Québec (34.2%). CFLCo is governed by an eight-person board of directors, six of whom are appointed by NLH and two by HQ.

On June 18, 1999, NLH, HQ, and CFLCo signed a Shareholders' Agreement that identifies specific corporate decisions that require the approval of a "special majority" of the directors, including at least one director nominated by NLH and one by HQ. The Shareholders' Agreement also identifies specific corporate decisions that HQ has to approve in its capacity as shareholder. These requirements have the practical effect of giving HQ veto power over several kinds of important corporate decisions.

The Shareholders Agreement continues in force until whichever of the following occurs first:

- NLH or HQ becomes the owner of all the CFLCo shares
- HQ no longer owns any of the CFLCo shares
- August 31, 2041 (when the existing contracts governing the sale of Churchill Falls power expire)

Concurrent with the termination of the Shareholders' Agreement, CFLCo's By-Law 28 will automatically come into force, provided that HQ is a shareholder at that time. Under By-Law 28, the control that HQ is able to exercise under the Shareholders' Agreement will be substantially reduced. For example, HQ's rights to appoint two directors is removed, as is the "special majority" clause.

By-Law 28 will not restrict the ability of CFLCo to operate, maintain, improve, and sell power and energy from the Churchill Falls facility. However, as long as HQ remains the owner of more than 25% of the shares, certain important corporate decisions will continue to require its approval.

## Appendix 4 – Discount Rate

In financial analyses of major projects such as those contemplated in the MOU, a key consideration is the chosen discount rate. Briefly, the discount rate is analogous to the interest rate and is used to convert future cash flows to their present value. The discount rate is typically selected from within a range of reasonable values. NLH and HQ agreed to use a discount rate of 5.822% for calculating financial benefits and costs in the MOU. At discount rates higher than 5.822%, the price HQ pays for Churchill Falls power in the early years of the MOU’s PPA would need to increase significantly in order to achieve the target PV of the project (\$33.8 billion).

The agreed discount rate of 5.822% is the same as HQ’s weighted average cost of capital (WACC), which is a common basis for selecting a discount rate. Hydro-Québec is Canada’s largest electric utility—a provincially-owned public utility company that is a monopoly provider of electricity to consumers in the province of Québec. The financial risk involved in its own operations is covered by its regulated prices, which allows HQ access to low-cost debt and a modest equity component. The WACC for HQ is calculated as follows:

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

During negotiations, expert advisors for NLH advised that 5.822% was within an acceptable range based on a debt component of 10-year bond yields and an equity return of 9%. However, alternative discount rates, such as those that utilize longer-term debt issuance costs, could be considered to be reasonable; selecting a different discount rate can have significant impacts on NPV calculations. NLH’s expert advisors indicated to the IRC that there is a lower volume of transactions for longer-term debt issuances, making debt pricing more challenging, and that they relied on an internal policy to use 10-year debt costs for calculating acceptable discount rate ranges.

One of NLH's expert advisors provided a response to the following question from the IRC about the amount and cost of debt that CFLCo could obtain: "Assuming the Churchill Falls expansion and upgrades were not financed using the CFLCo balance sheet, what is your estimate for the quantity of debt that could be financed using a 5.822% cost of capital?" Their response stated that they had explored alternative financing through 144a/RegS bond issuances throughout the term of the PPA, and concluded:

Indicative debt issuances may exceed the funding capacity in a single capital market, with the most likely financing strategy to involve a mix of debt issuances in both the Canadian and U.S. debt markets. As such, for modelling purposes, [we] assumed issuances of debt across 10, 15, and 20-year tenors. Given the tenure of the [Churchill Falls] PPA, 10-, 15-, and 20-year issuances are appropriate as they don't face near-term recontracting risk and deliver attractive pricing. Cost of debt for Churchill Falls, based on the outlined debt financing strategy is currently estimated to be 5.50% on a blended cost.

[The] indicative debt financing case assumes debt issuances based on new CF PPA cash flows, with debt issuance based on a 1.50 [times] debt service coverage ratio (DSCR) and all debt assumed to be amortized by end of the CF PPA term in 2075. Total quantum of debt to be issued between 2025 and 2030 is estimated to be approximately \$8 billion. These figures are based on the current PPA framework we understand today.

[Expert's] estimate for the quantity of debt that could be financed at Churchill Falls (assuming CF Expansion and CF Upgrades are not financed using CF(L)Co balance sheet) is a preliminary analysis based on the current PPA framework to [the expert's] understanding and is subject to change based on market conditions at the time of debt issuances and credit rating, amongst other factors.

The response above concludes: "Cost of debt for Churchill Falls, based on the outlined debt financing strategy, is currently estimated to be 5.50% on a blended cost."

Unlike HQ and NLH, CFLCo is not a regulated public utility— it is an independent power producer (IPP), with geographically distant markets for its power that require transmission access from third parties, including HQ. Normally an IPP is required to have sufficient equity capital in order to reduce risk for debt providers and thus reduce the cost of debt. There is an inverse relationship between the equity percentage of capital and the interest rate on the debt.

At the end of 2025, CFLCo had 100% retained earnings (equity) on its balance sheet and no long-term debt, which should make its current discount rate 9% (as per the formula above).

In the situation where CFLCo issues debt up to 70% of its balance sheet capacity, the WACC for CFLCo is calculated to be 6.55%:

$$\text{WACC} = (\text{Debt}\% \times \text{Debt Rate}) + (\text{Equity}\% \times \text{Equity Rate})$$

<b>Debt %</b>	70%
<b>Debt Rate</b>	5.50%
<b>Equity%</b>	30%
<b>Equity Rate</b>	9%
<b>Calculated WACC</b>	<b>6.55%</b>

Additionally, if the debt component were reduced to 60%, and the equity component increased to 40%, which is not uncommon for an IPP, the calculated discount rate becomes 6.9%.

Both of these higher discount rates are within the range that an IPP in the current North American market would use for financing purposes. In fact, the discount rate for an IPP in the current market for private investors would typically be 7% to 8% for a contracted plant.

Applying a higher discount rate than 5.822% leads to a lower present value of the forecast annual payments from HQ for CF power than \$33.8 billion. For example, at a discount rate of 6.9%, the present value would be \$7.6 billion lower (\$26.2 billion).

## Appendix 5 – Levelized Cost of Electricity

The value of HQ’s payments for Churchill Falls power under the MOU’s proposed PPA (\$33.8 billion in net present value 2024 dollars, \$195 billion in nominal dollars as specified in Schedule G) can be evaluated in terms of the levelized cost of energy (LCOE), which yields an average cents per kWh amount.

The LCOE, a commonly used metric in the energy sector, is one way of comparing PPAs and the costs of generating power over the lifetime of an asset. Conceptually, the LCOE is the constant price per kWh at which a generating asset’s lifetime revenues would cover its lifetime costs, discounted to present value. In other words, it is the breakeven energy price (in cents per kWh) that a project would need to sell all its output at during its operating life to recover financing, capital, and operating costs at an assumed discount rate. The formula for calculating the LCOE is:

$$LCOE = \frac{\sum_{n=0}^N \frac{CF_n}{(1+d)^n}}{\sum_{n=0}^N \frac{Q_n}{(1+d)^n}}$$

Variable	Meaning
N	Term of the PPA (in years)
n	A given year within the term
CF <sub>n</sub>	Cost of electricity in a given year (n) in ¢
Q <sub>n</sub>	Quantity of electricity in a given year (n) in kWh
d	Discount rate

Source: National Renewable Energy Laboratory, U.S. Department of Energy. 2013. Power Purchase Agreement Financial Models in SAM.

The IRC calculated the LCOE for HQ’s purchases of CF power as specified in the MOU and also for several related variations in the pricing model, each using the MOU discount factor of 5.822%. Annual CF volumes for HQ and NLH were obtained from the GNL OurChapter.ca website. The results of the analysis are presented below in Table 4.

The first row of the table shows that the price at which HQ purchases CF power is equivalent to an LCOE of 7.9 ¢/kWh across the entire 51-years of its PPA. The nominal price ranges from 1.6 ¢/kWh in 2025 to 37.2 ¢/kWh in 2075. Applying the same analysis to the 2025-2041 period gives an LCOE of 3.8 ¢/kWh and for the 2042 to 2075 period, 16.7 ¢/kWh (rows 2 and 3).

The fourth row calculates the LCOE for NLH's purchases of CF power. The LCOE is 10.5 ¢/kWh, which is higher than HQ's average LCOE because NLH's volumes are increasing over the term of the PPA (and HQ's are decreasing) and because nominal prices are higher in the later years.

The fifth row provides the LCOE for an alternative "5.9 ¢/kWh effective price" model which was used by NLH after the MOU was signed to publicly explain the new CF PPA pricing. In this model, the price of CF power is hypothetically set at 5.9 ¢/kWh in 2025 and then increases by 2% each year thereafter. The NPV (in 2024 dollars) is \$33.8 billion and hence is equivalent in real NPV terms to the Schedule G model. However, total nominal payments would be approximately \$70 billion lower than those generated by Schedule G. The LCOE for this "5.9 ¢/kWh effective price" model is 7.9 ¢/kWh, identical to the MOU Schedule G pricing model LCOE.

The sixth row of the table calculates the LCOE if the effective price in 2025 is instead set at 4.1 ¢/kWh and escalated at 4.1% each year thereafter. This percentage is the average rate of electricity price inflation in Canada over the last 50 years. This model also yields a net present value of \$33.8 billion and an LCOE of 7.9 ¢/kWh. Nominal prices range from 4.1 ¢/kWh in 2025 to 30.3 ¢/kWh in 2075.

**Table 4 – Levelized Cost of Energy Analysis of New Churchill Falls PPA**

<b>Pricing Model</b>	<b>Energy (GWh from 2025 -2075)</b>	<b>Nominal Energy Price Range (cents per kWh, 2025- 2075)</b>	<b>Total Nominal Payments (Revenue) (\$ billion)</b>	<b>Present Value of Payments (\$ billion, 2024)</b>	<b>Levelized Cost of Energy (cents per kWh)</b>
MOU Schedule G (HQ, 2025-2075)*	1,267,587	1.6 to 37.2	\$194.7	\$33.8	7.9¢
MOU Schedule G (HQ, 2025-2041)	460,955	1.6 to 7.8	\$19.8	\$11.0	3.8¢
MOU Schedule G (HQ, 2042-2075)	806,632	8.2 to 37.2	\$174.9	\$22.8	16.7¢
MOU Schedule G equivalent (NLH)	442,953	1.6 to 37.2	\$83.3	\$12.1	10.5¢
“5.9 ¢/kWh Effective Price” (HQ)**	1,267,587	5.9 to 15.9	\$125.1	\$33.8	7.9¢
“4.1 ¢/kWh Effective Price” (HQ)***	1,267,587	4.1 to 30.3	\$159.4	\$33.8	7.9¢

\* The nominal value of HQ and NLH new CF PPA payments is \$278 billion (\$194.7 + \$83.3).

\*\* The nominal value of HQ and NLH new CF PPA payments is \$208.4 billion (\$125.1 + \$83.3).

\*\*\* The nominal value of HQ and NLH new CF PPA payments is \$242.7 billion (\$159.4 + \$83.3).

Note: the value of the denominator in the LCOE formula is 428,773 in each of the 51-year models in Table 4 except for the NLH pricing model where the value is 115,173.

## Appendix 6 – Estimated Rate Mitigation Costs

The IRC concluded that rate mitigation costs could have a material impact on the forecast benefits of the MOU to the provincial treasury and, in the opinion of the IRC, should be included in the evaluation of financial benefits. NLH excluded estimates of rate mitigation costs post-2041 from their analyses due to uncertainty over future government rate mitigation policy. The IRC made the following assumptions in its calculations:

### Key Assumptions

1. All industrial, residential, and general customer rates are mitigated.<sup>31</sup>
2. To be conservative, the IRC calculated rate mitigation to a forecast rate of 4.5 ¢/kWh in 2025, escalating at 2% per annum, for all customers.
3. Rate mitigation costs are calculated for the period from 2036 to 2075.
4. For simplicity, rate mitigation costs are not included for 360 MW of power from Gull Island and new developments.

In these calculations, the IRC is not recommending an industrial rate policy but estimating a potential cost of rate mitigation for the NLH PPAs, which the IRC considers to be conservative. Estimated rate mitigation costs have been identified transparently throughout the report.

Under these assumptions, the total cost of rate mitigation from 2036-2075 is estimated to be \$5.4 billion (2024 dollars).

31 <https://www.ourchapter.ca/files/NewfoundlandLabrador-Quebec-MOU-Briefing-Deck-Dec-12-2024.pdf>

# Glossary of Terms

## **Amortization**

An accounting method for recovering the costs of an intangible asset over a number of years.

## **Back-Loading**

A financial structure where debt repayments or cash flows are moved towards the end of the term of a contract.

## **Build-Operate-Transfer (BOT)**

A BOT is a specific form of commercial arrangement where an entity builds and operates an infrastructure project until the end of a defined period of time and then transfers full ownership to another entity at the end of the contract term.

## **Capacity**

The maximum power that a generating unit, generating plant, or other electrical apparatus can supply. Common units for measuring capacity include kilowatt (kW) and megawatt (MW).

## **Capacity Factor**

A ratio of an electrical generating plant's actual output over a period of time compared to its potential output if it were possible for it to continuously operate at full capacity over the same period of time.

## **Cost-of-Service Pricing Model**

A regulatory framework in utility pricing that determines rates charged to customers on the basis of the utility recovering the total costs of providing a service, including depreciation, infrastructure, operation, maintenance and administrative costs, and a reasonable return of and on equity.

## **Depreciation**

An accounting method for recovering the costs of a tangible asset over a number of years.

## **Discount Rate**

The percentage rate used to convert future cash flows to their present value.

## **Dispatchable Power Generation**

Sources of electricity that can be used on demand at the request of power grid operators, according to market needs. Dispatchable power generators can be turned on or off within specific time frames, or can adjust their output according to an order.

## **Energy**

The amount of electricity an electrical generating plant produces over a specified period of time.

## **Equity**

Equity represents the value of shareholders' investment in a corporation.

## **Fair Value**

The price that an asset, product, or service that is agreed in an orderly transaction between a knowledgeable buyer and seller at arm's length.

## **Fair Market Value**

The price that an asset, product, or service sells for in an open, unrestricted market between a knowledgeable buyer and seller at arm's length.

## **Generator**

A device that converts rotational energy to electrical energy.

## **Generating Plant**

An industrial plant for the generation of electric power.

## **Gigawatt Hour (GWh)**

One million kilowatt hours.

## **Kilowatt (kW)**

One thousand watts. The commercial unit of measurement of electric power. A kilowatt is the flow of electricity required to light ten 100-watt light bulbs.

## **Kilowatt Hour (kWh)**

One thousand watts used for a period of one hour. The basic unit of measurement of electric energy. The average electrically heated home on the island of Newfoundland consumes about 18,200 kWh per year.

## **Levelized Cost of Energy (LCOE)**

A calculation for measuring the average cost of electrical generation over the lifetime of an energy-producing asset or power purchase agreement.

## **Megawatt**

One million watts, or one thousand kilowatts. A unit commonly used to measure both the capacity of a generation plant.

## **Nominal Payments**

The actual dollar amount of a payment received in a year.

## **Net Present Value (NPV)**

The value today of a future sum of all discounted cash flows (both incoming and outgoing) associated with a project or investment, given a specified discount rate.

## **Off-Taker**

A purchaser under a Power Purchase Agreement.

## **P-estimate**

The statistical confidence level of achieving specific cost and schedule forecasts for a project. For example, a cost estimate with a P-value of 85 (P85) has an 85% chance the predicted cost will be achieved.

## **Participation Agreement**

A contractual arrangement that establishes the terms and conditions under which parties agree to participate in a project, defining rights, obligations, governance, decision making, financing, risk allocation, and how the output of the project would be shared.

## **Powerhouse**

The structure that contains the turbines and generators of a power project.

## **Power Purchase Agreement (PPA)**

A contract between an electricity producer and a purchaser under which the purchaser agrees to buy electricity for a period of time.

## **Present Value (PV)**

The value today of a future sum of money or stream of payments, given a specified discount rate.

## **Principal Beneficiary**

In the context of the energy resources of the Churchill River, the IRC has interpreted “principal beneficiary” to mean that the province has access to sufficient amounts of power when needed in order to create optimal economic and financial benefits.

### **Public-Private Partnerships (PPP or P3)**

A co-operative agreement in which the private sector designs, finances, builds, operates, and/or maintains a public asset or service while the government or Crown corporation retains oversight, and ensures that public and commercial objectives are met.

### **Rate Mitigation**

A government policy to subsidize or financially restructure electricity rates for ratepayers.

### **Recapture Block (or Recall Block)**

The right for NLH to obtain additional power allocations from Churchill Falls at specified dates.

Under the 1969 Power Contract, CFLCo was entitled to recall 300 MW, and an additional 225 MW for its subsidiary, Twin Falls Power Corporation.

Under the MOU, NLH is entitled to recall an additional 605 MW before 2041, and an additional 500 MW after 2041.

### **Residual Value**

The remaining value, positive or negative, of an asset or agreement at a specified time.

### **Royalty**

A payment made by company to a resource owner for the right to extract, sell, or use resources.

### **Sanction**

A decision point at which a project's scope, budget and schedule are formally authorized.

### **Terawatt Hours (TWh)**

A unit of bulk energy; one billion kilowatt hours.

### **Volume Blocks**

A defined amount of capacity or energy to be sold.

### **Water Management**

A Water Management Agreement defines how the flow of water on a river with hydro-generation plants is to be managed and co-ordinated in order to maximize the production of electrical power on that river.

