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# The Memorandum of Understanding between NLH and Hydro-Québec: Summary, Analysis and Questions

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### Introduction

This document constitutes a preliminary analysis of the "MOU for a new long-term energy purchase and development initiative between NLH and Hydro-Quebec" (the "MOU").

The following table shows the main issues addressed in the MOU. For each one, key provisions of the MOU will be summarized, with commentary. Section 9 will present some concluding remarks.

ISSUE	Article	Schedule
1. Term and exclusivity	5.3	
2. Allocation from existing facilities	2.1, 2.4b	E, I, J
3. Pricing from existing facilities	2.1a(iii), 2.2b	F, G
4. Project Incentives	2.4	Н
5. Development Projects	2.3	A, B, C
6. Allocation from Development Projects	2.1a(ii) and (iv), 2.4b	E, I, J
7. Pricing from Development Projects	2.2c and d	
8. Development Studies	2.7	

The MOU is a complex document, which relies on many technical and financial concepts. One of key concepts underlying any discussion of electricity policy is the distinction between capacity and energy.

Simply put, capacity is an <u>instantaneous</u> measure of the amount of electricity being produced or consumed, and energy is a measure of the amount of electricity consumed <u>over time</u>. Capacity is measured in watts (W), and its multiples (kW, MW, GW). Energy is the product of capacity used over time, and so is measured in watt-hours (Wh), and its multiples (kWh, MWh, GWh, TWh).

In a hydro system, both are important: capacity to ensure that all demand can be met during peak hours (usually during the coldest days in the winter), and energy to ensure that there is enough water in the reservoirs to meet demand all year-round.

Surprisingly, the MOU makes no distinction between energy and capacity. Electricity is described throughout in megawatts (MW). Reading the document as a whole, it seems clear that it is referring primarily to energy, not capacity. It is to be expected that the Definitive Agreements will be explicit about energy and capacity allocations and prices.

Another important distinction is between real and current (or nominal) dollars. Current dollars refer to the actual dollars that will be spent in any given year. However, their value generally diminishes over time, due to inflation, so a current dollar in 2041 will be worth less than a

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current dollar in 2025. "Real" dollars (which are always expressed with a reference year) remove inflation, so that a "2025 (real) dollar" in 2041 has the same value as it does in 2025.

When comparing values over long periods of time, economists generally refer to real dollars, since future inflation rates cannot be known with certainty. However, important parts of the MOU are expressed in current dollars.

A related concept is that of Net Present Value (NPV). The Net Present Value of a multi-year stream of payments refers to the amount of money today that has the same value as that multi-year stream. Thus, it takes into account not only inflation, but also the time value of money — its ability to generate investment income. The NPV value always depends on the chosen discount rate — the rate at which the value of current dollars decreases year to year, due both to inflation and to lost investment income.

The MOU uses all three of these mesures of value, and in ways that do not facilitate comprehension. Thus, the future payments from Hydro-Québec for energy from the existing Churchill Falls assets are expressed in current dollars for each year through 2075 (Schedule G), as are the "incentive payments" (Schedule H).

However, S. 2.2(b)(ii) states that payments from HQ to CF(L)Co will have a forecasted **net present value** of \$33.8 billion, based on a discount rate of 5.822% (s. 5.9(b)). This is indeed the NPV of the revenue stream in Schedule G, based on the stated discount rate. However, it is not possible to fix both of these values. If the NPV value is fixed, then the current dollar amounts may change, if economic conditions vary (as they surely will). Or, if it is the current dollar payments that are fixed, then it is their NPV value that may vary, if inflation is higher or lower than the target level of 2%.

Because the MOU doesn't state clearly which of these amounts depends on the other, there is ambiguity as to what has actually been agreed to.

## 2. Term and Exclusivity

The parties have until April 30, 2026 to complete the Definitive Agreements. Otherwise, the MOU will terminate automatically on that date, or an earlier date by mutual agreement of the parties. During that period, NLH agrees not to discuss or enter into any agreement with any other party regarding the possibility of developments at Churchill Falls or Gull Island.

The MOU is "non-binding" in that, if no Definitive Agreements are signed, it will have no effect. But it does represent commitments, which each side can reasonably assume will be respected by the other in negotiating those Definitive Agreements.

It is important to note that the MOU is in effect, and has been since its signature between the CEOs of Hydro-Québec and NLH. While it is to be presumed that each side obtained the

agreement of its government and shareholder before signing, the MOU is not conditional on the subsequent approval of anyone.

As further discussed in section 9, below, it is in the public interest that the Definitive Agreements in fact be conditional on some kind of public review, in each province — preferably carried out by their respective energy regulators (the *Régie de l'énergie*, in Québec, and the Board of Commissioners of Public Utilities, in Newfoundland and Labrador).

## 3. Energy and capacity allocation from existing facilities

The basic allocations from the CF existing plant are shown in the left-hand columns of Schedule E (reproduced in Appendix I).

They are referred to as "volumes", without distinguishing between energy and capacity. Since capacity is not a "volume", and since capacity and energy rights are very different, our working assumption is that the allocations in the MOU are of energy, not capacity. Our understanding of the capacity value and the energy production of each (and hence their capacity factors) is as follows:

Table 1. Capacity and energy values of each component of the MOU

	MW	TWh	CF
CF	5,290	34	73.4%
CF Upgrade	550	1	20.8%
CF Expansion	1100	0.4	4.2%
Gull Island	2250	12	60.9%

That said, it is not clear why only 5,290 MW are allocated from Churchill Falls in Schedule E, since the rated capacity of the plant is 5,438 MW.<sup>1</sup> It is also not clear how the allocations will take into consideration the significant hydrological variability from one year to another.

Unused Recapture rights: HQ "has access to and will purchase" any volumes subject to recapture rights that are not actually recaptured by NLH. For the existing plant, the price will be determined in the Definitive Agreements, at levels equivalent to those available to NLH (s. 2.1(b)). Thus, NLH will not be able to export volumes that are assigned to it but unused. They will instead be purchased by HQ.

**New Recapture Rights:** Schedule E shows a "New Recapture Right", starting at 305 MW in 2031 and increasing to 605 MW in 2035. This does not appear to be explicitly referenced in the

<sup>&</sup>lt;sup>1</sup> https://nlhydro.com/about-us/our-electricity-system/our-generation-assets/

MOU. It is not clear if it is conditional on anything other than the signing of the Definitive Agreements.

These New Recapture Rights would only have effect if loads in Labrador increase substantially. If not, the power will be sold to HQ, as it is today.

**Expiring blocks:** The "expiring blocks" are described in s. 2.1(d) of the MOU, which defines these two 250-MW blocks for which, at the end of 2050 and 2060, NLH will have the option to purchase them (in whole or in part) at a price to be determined at that time. Insofar as NLH does not exercise that option, HQ will again have the option to purchase said energy, at a price to be set in the Definitive Agreements.

No justification is provided in the MOU for these two different pricing arrangements. Conceivably, this could create a situation where HQ could have the option to purchase these expiring blocks at a price lower than that which NLH would have to pay for them.

## 4. Pricing from existing facilities

**Average pricing:** The MOU provides information about the pricing for energy from the existing CF facilities, but analysis is required to fully understand it.

S. 2.2(b)(ii) states that payments from HQ to CF(L)Co will have a forecasted net present value of \$33.8 billion, based on a discount rate of 5.822% (s. 5.9(b)).

Schedule G (reproduced below in Appendix II) indicates the forecasted payments each year, shown in Figure 1. These amounts, discounted at 5.822% per year, equal the \$33.8 billion total mentioned in Schedule F.

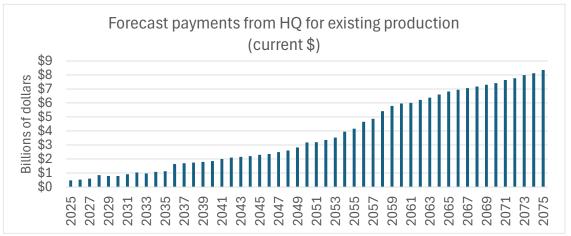


Figure 1. Forecast payments from HQ for existing production.

<sup>&</sup>lt;sup>2</sup> "... at a price determined at the time of the exercise of such option based on pricing terms using commercially reasonable market principles to be agreed in the Definitive Agreements". S. 2.1(d)(i).

According to Schedule E, HQ's allocation from the existing plant is now 4765 MW, but this is diminished first by NLH's "New Recapture Rights", mentioned above, and then by the two "expiring blocks" of 250 MW each. The resulting HQ allocation from existing plant (assuming that NLH is able to use these additional allocations) is shown in Figure 2, in MW (on the left axis) and in TWh (on the right axis).<sup>3</sup>

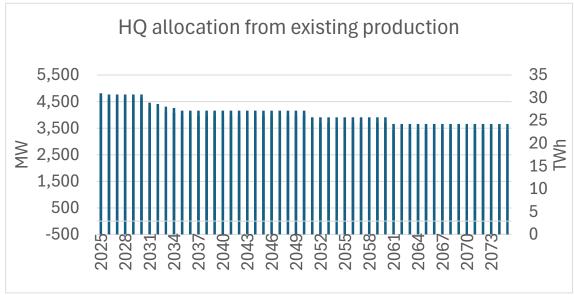


Figure 2. HQ allocation from existing production

Combining these two data series, we can determine the average price for power from the existing facilities, shown in nominal dollars in Figure 3.

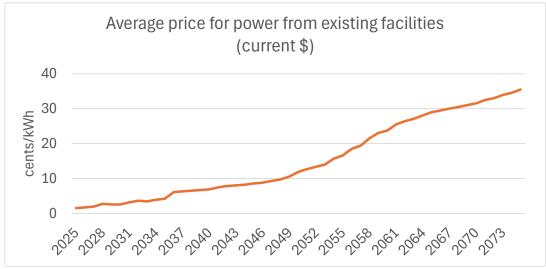


Figure 3. Average price for power from existing facilities (current \$)

<sup>&</sup>lt;sup>3</sup> Annual volumes taken from information provided NL Hydro in response to a request made on behalf of the PC Caucus during a technical briefing on January 4, 2025.

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#### Labrador rates

Since it is stated in Schedule F that the equivalent pricing terms would apply to HQ and NLH, it appears that these prices would apply to NLH as well.

Residential and general service rates in the Labrador Interconnected System (LIS) are based on a revenue requirement, that includes costs for generation, transmission and distribution. As Labrador's generation comes almost exclusively from Churchill Falls, increasing the prices for that generation from today's levels to those shown above would obviously have a significant rate impact. The major transmission investments required in Labrador to serve new loads would also have significant rate impacts, in the absence of new government subsidies to maintain Labrador rates at their current levels.

#### **Churchill Falls rates in constant dollars**

According to Figure 3 – which, it should be emphasized, is not included in the MOU, though it is derived from figures presented therein — the price for power from the existing Churchill Falls facilities would increase from 2 cents/kWh in 2025 to 4 cents in 2035. It would then jump to 6 cents and increase gradually to 35 cents/kWh in 2075 (all in nominal dollars).

While it is desirable to describe long-term monetary flows in constant dollars, the payments from HQ to CF(L)Co set out in Schedule G are described in nominal dollars, so Figure 3 is the only possible direct reflection of the MOU.

The constant-dollar equivalent of this pricing profile depends on the expected inflation. The equivalent profile in constant 2025 dollars, based on a 2% inflation, would reach about 13 cents/kWh, as shown in Figure 4.

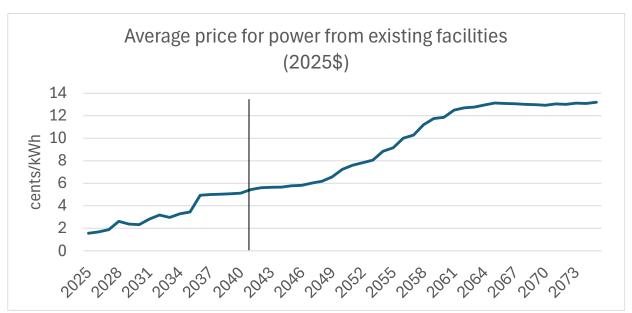


Figure 4. Constant-dollar pricing based on an inflation rate of 2%/yr

However, if inflation were to average 3% over the next 50 years, the constant-dollar pricing profile would be considerably lower, reaching a peak of just 9 cents/kWh, as shown in Figure 5.

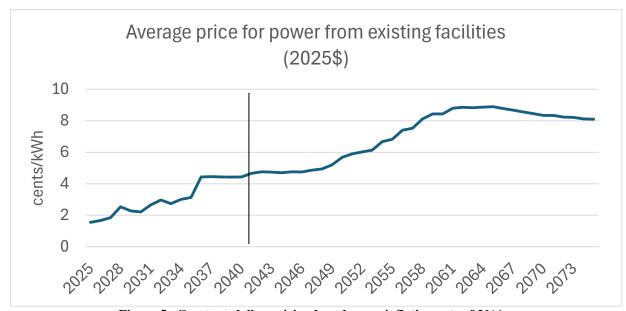


Figure 5. Constant-dollar pricing based on an inflation rate of 3%/yr

And if inflation were to average 4%/yr over the next 50 years, the average price in constant 2025 dollars would be even lower, as shown in Figure 6.

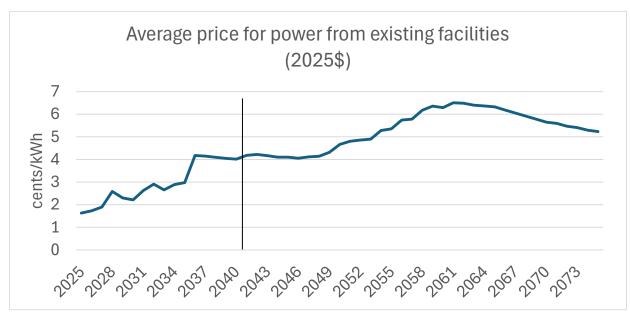


Figure 5. Constant-dollar pricing based on an inflation rate of 4%/yr

These surprising results are due to the fact that the forecast payments (Schedule G) are denominated in <u>current</u> (or nominal) dollars, rather than in constant dollars. Thus, the greater the inflation rate, the more the value of the preset current-dollar prices will be eroded. It is important to note that these values are also very dependent on the actual energy output of Churchill Falls, which varies significantly from year to year and which may be subject to unknown changes in future decades due to climate change. Since the allocations in Schedule E are given in MW, they are essentially defining the proportion of the CF output to be delivered by HQ and to NLH, for a fixed revenue (expressed as an NPV of \$33.8 billion). If the plant's total output is higher than the historical average of 34 TWh, the price per kWh should go down. If the output is lower, it should go up. However, assuming that the actual prices are to be set in the Definitive Agreements, CF(L)Co's actual revenues will vary, depending on inflows.

Comparison to current contract. To think clearly about the implications of the MOU, in relation to the status quo, it is useful to distinguish between the periods 2025-2041, and 2041 to 2075. Under the MOU, the NPV value of electricity sales 2025-2041 increases from \$0.6 billion, under the current contract, to \$11 billion. If we attribute the remaining \$22.8 billion to the period 2042-2075 and assume that the current dollar prices will increase with inflation, the implied rate is 13.7 cents/kWh (in 2025 dollars), as shown in Figure 6.

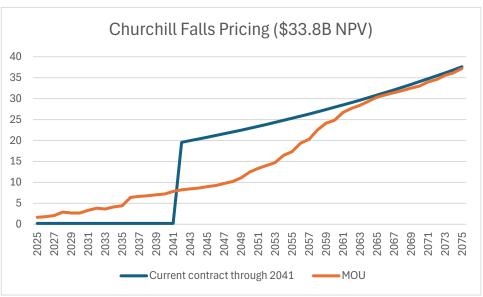


Figure 6. MOU pricing compared to current contract

**Actual pricing:** Schedule F makes clear that the actual pricing of energy from the existing CF facilities will be complex, using "a block pricing structure with a combination of pricing mechanisms", to be agreed upon in the coming months. While it will "target the agreed upon annual schedule of forecasted payments", it will not guarantee them. The agreed-upon principles guiding the development of this block pricing mechanism are:

- blocks with a range of different quantities, pricing and durations;
- pricing methodology either based on separate energy and capacity pricings or blended energy and capacity pricing;
- predictable, transparent and verifiable pricing mechanisms;
- reflective of wholesale electricity market value in Québec; replacement costs in Québec; and wholesale electricity market value in northeast export markets;
- the block pricing methodologies are intended to provide pricing flexibility, capture changes in the market value and fairness over the term of the New CF PPAs.

These principles are very broad, and leave open a wide range of possibilities for pricing mechanisms, which will in reality determine the amounts to be paid for this power in the future by HQ and by NLH.

There is clearly a tension between the two parts of the third paragraph of Schedule F. On the one hand, it states that the total of the forecasted payments to CF(L)Co <u>is</u> \$33.8 billion (NPV). On the other hand, it says that pricing will respect the principles listed above. Does that mean that, depending for example on the actual wholesale electricity market value in northeast export markets, the NPV value may be more or less than \$33.8 billion? Or does it mean that the block pricing will be designed to reflect these constraints, to the extent possible, while maintaining the agreed-upon value of \$33.8 billion?

In her comments at the House of Assembly sessions, NLH CEO Jennifer Williams made it clear that she understands Schedule F in the first way – the principles are fixed, and the total value may vary. However, it is far from clear that HQ sees it the same way. This may be one of the most important challenges in negotiating the Definitive Agreements.

## 5. Development Projects

The MOU foresees three Development Projects:

- 1. The CF Units Upgrade,
- 2. The CF Expansion Project, and
- 3. The Gull Island Project (Schedule C).

Each one will be subject to a separate PPA, to be negotiated in the Definitive Agreements.

#### 3.1 CF Units Upgrade

The CF Units Upgrade project consists of upgrades to each of the 11 turbine-generator units of the CF plant, which will increase its capacity by about 550 MW (Schedule A). All of this capacity is allocated to HQ (Schedule E).

It is unclear whether or to what extent it will also increase the annual energy output.

The commercial terms are set out in s. 2.2(b) of the MOU. The pricing for this additional generating capacity is on a cost-plus basis. The terms are not set out clearly in the MOU, nor is the markup (the "plus" value). The MOU suggests that the net present value of the capital and operating costs will first be calculated, and then spread out over the term of the agreement such that the revenues will increase (in nominal terms) by 2% per year.

The MOU states only that "CF(L)Co or NLH will lead and be responsible for the execution" of the project, which will be financed through CF(L)Co debt (s. 2.3(b)).

## 3.2 CF Expansion Project

The CF Expansion project consists of construction of a new powerhouse adjacent to the existing facility (Schedule B). It is expected to increase the total installed capacity by about 1,100 MW.

The CF Expansion Project will provide additional capacity of 1100 MW, and will produce 0.4 TWh/yr of energy. However, since it will use water that would otherwise have been turbined at Churchill Falls, it must also result in a decrease in energy production from the existing CF plant.

The commercial terms for the CF Expansion project are set out in s. 2.2(c) of the MOU. The pricing for this additional generating capacity is on a cost-plus basis, defined in the same way as for the Unit Upgrade project.

The MOU states that HQ will lead and be responsible for design and construction of the project, which will be financed by CF(L)Co debt (s. 2.3(c)). However, according to s. 2.2(c)(iii), it is up to HQ to choose between two very distinct options:

- A) "The return of deemed equity for the CF Expansion Project will not be lower than the interest rate applicable to the CF Expansion Project debt", or
- B) The debt:equity ratio will be set at 75:25<sup>4</sup>, with the "incentive" payments set out in Schedule H being used by NLH to fund its equity portion.

If HQ elects option B), then s. 2.3(d), (e) and (f) — which apply to the Gull Island Project — will also apply to the CF Expansion project. The first of these paragraphs specifies a debt:equity ratio of 75:25, which would appear to contradict the statement in s, 2.3(c) that the project will be financed entirely by CF(L)Co debt.

It is surprising that NLH agreed that this important decision should be made solely by HQ.

#### 3.3 Gull Island Project

The Gull Island project consists of the construction of a new 2250 MW hydro project at Gull Island (Schedule C).

The commercial terms, similar to those for the CF Expansion project, are set out in s. 2.2(d)(ii) of the MOU. Most operational details remain to be negotiated in the Definitive Agreements.

HQ will lead and be responsible for the design and execution of the project. It will also be responsible for leading its financing, which will be 75% debt and 25% equity, shared between NLH and HQ in a new joint venture ("Gull Island JV Entity"). The MOU also specifies, surprisingly, that HQ (or its affiliate) will have "full decision-making authority" (s. 2.3(h)).

NLH is obliged to provide up to \$3.5 billion in equity (the "Committed NLH GI Equity Contribution", described in s. 2.4), which is funded by the Project Incentives described in the next section. This amount also covers equity in the CF Expansion Project (if HQ selects the second option, described above), and can also be used to fund the NL Transmission Assets, if all the funds are not required for Gull Island.

<sup>&</sup>lt;sup>4</sup> This was already set out, at s. 2.3(c)(ii)(C).

According to s. 2.4(c), NLH and CF(L)Co must execute an exclusivity agreement, preventing NLH or its subsidiaries from discussing any projects at the Gull Island and Churchill Falls site with any other party, until 2045. This exclusivity agreement would be terminated:

- Three years after the date when all regulatory approvals were in place, if commencement of construction has been delayed "solely and intentionally by HQ without any material legal, contractual or financial justification", or
- When HQ provides written notice to NLH that it has decided not to proceed with one or the other of these Development Projects for one or another of the circumstances described in Schedule J.

These provisions give NLH very little control over the future of these projects. If HQ does not formally notify NLH of its decision not to proceed with one or the other of the Development Projects, the burden would apparently be on NLH to demonstrate, three years after the obtention of all regulatory approvals, that HQ's failure to proceed was made "solely and intentionally by HQ without any material legal, contractual or financial justification".

Furthermore, it appears that, once HQ commences construction of either Development Project, NLH will have no way to oblige it to complete construction and proceed with commissioning. NLH will continue to be bound by the exclusivity agreement, until such time as HQ formally abandons the project(s).

# 4. NLH and HQ Transmission Assets

NLH will lead and be responsible for the development of the NLH Transmission Assets, required to transmit the additional power from CF and Gull Island to HQ (s. 2.3(i)). HQ will pay for service over these transmission assets at a regulated cost-of-service rate, to be negotiated in the Definitive Agreements.

The MOU is silent as to how the transmission rates over the NLH Transmission Assets are to be set. Are they to be set by the PUB on a cost-of-service basis, or are they to be negotiated?

Either way, it would appear that the annualized cost of the NLH Transmission Assets will become part of the revenue requirement of the Labrador Integrated System. This would clearly have a significant impact on rates in the Labrador Interconnected System (LIS), in the absence of new subsidies to offset them.

# 5. Project Incentives

Section 2.4 of the MOU concerns "project incentives". These appear to be direct payments from HQ to NLH to reward it for a) completing the Definitive Agreements, along with the exclusivity agreement described above, preventing NLH or its subsidiaries from discussing any

projects at the Gull Island and Churchill Falls site with any other party, until 2045, and b) accomplishing defined milestones with regard to the development projects.

The payment structure, set out in Schedule H, is shown in Figure 5. It amounts to \$3.5 billion in 2025 dollars.

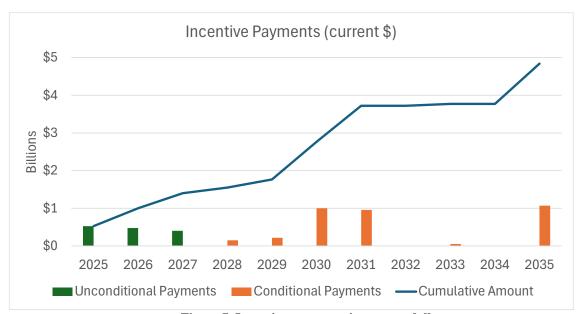


Figure 7. Incentive payments in current dollars

However, according to s. 2.4(a), this same amount constitutes the "Committed NLH GI Equity Contribution". This appears to be the amount that NLH must contribute as equity to the Gull Island project (and also the CF Expansion project, if HQ chooses the second option). Thus, the incentive payments appear in reality to be simply funding NLH's equity obligations for the various development projects — except in the event that HQ decides not to proceed with them, in which case the Unconditional Payments in 2025-2027 would be the final incentive payments.

# 6. Allocation from Development Projects

Schedule E makes clear the allocation of power from the Development Projects, as follows:

- CF Upgrades: 100% to HQ
- CF Expansion Project: 87.7% (965 MW) to HQ; 12.3% (135 MW) to NLH
- Gull Island: 16% to NLH<sup>5</sup>, 84% to HQ

<sup>&</sup>lt;sup>5</sup> 10% to be sourced directly from Gull Island; the remainder from the other development projects (the Churchill Expansion Project).

**NLH Recapture:** HQ "has access to and will purchase" any volumes allocated to NLH that it does not actually use, under the cost-plus pricing formulas to be negotiated for each Development Project (Schedule E).

**Downward adjustments:** a complex set of potential downward adjustments to the allocations to NLH, in the event that the Development Projects are not completed as planned, are presented in s. 2.4(b) and in Schedule I, and exemptions to these adjustments are presented in Schedule J.

The following table summarizes the adjustments to NLH volume allocations presented in Schedule I.

Table 2. Schedule I.

	ехра	oth GI and CF ansion not to be built or ommissioned		expansion not to be built or ommissioned	GI not to be built or commissioned		
		if GI Build Conditions Satisfied		if GI Build Conditions Satisfied		if GI Build Conditions Satisfied	
2031	150	225	150	225	150	225	
2035			400	325	150	75	
2041	50	0					
2051	50	25	50	50	50	50	
2051	50	50	50	50	50	50	
Total	300	300	650	650	400	400	

However, there is confusion as to the meaning of these figures. The title of Schedule I refers to "downward adjustments to volume allocations", and the description of each scenario refers to "Application of downward adjustments". 2.4(b) also describes "downward adjustments to the volume allocations to NLH" under various conditions.

However, each one of the items a) through d) for each scenario states that "NLH receives an additional" number of MW.

Furthermore, it is hard to reconcile the values in Schedule I with the text of s. 2.4(b), which refers to NLH receiving an "addition 75 MW" if the GI Build Conditions are satisfied by the Target Date (12/31/2029). Furthermore, s. 2.4(b) concludes by stating:

"... it being understood that the additional volumes provided for in subsequent years in either of the scenarios described in Schedule I would be adjusted downward so that the total aggregate additional MW received by NLH by 2061 remains the same, the whole as illustrated in Schedule I;"

It is not at all clear how to reconcile these statements with each other, or with the right-hand columns of Schedule E, which show an allocation to NLH of 360 MW from the three Development Projects.

## 7. Pricing from Development Projects

The new Power Purchase Agreements (PPAs) to be negotiated are described in s. 2.2. Each Development Project will be the subject of a separate PPA.

The general structure is similar for the CF Expansion PPA (s. 2.2(c)) and the GI PPA (s. 2.2(d)):

- 50-year term, starting at commissioning, with no automatic renewal rights;
- Cost-plus pricing to deliver a 2%/yr revenue escalation (see s. 3.1, above);
- Capital cost amortized over 65 years;
- 75:25 debt:deemed equity ratio;
- Return on deemed equity between 8% and 9%;
- Cost variations borne by offtakers.

This would imply that the process of setting rates for the development projects would include the following steps:

- Estimate costs for each year of contract, including:
  - o Capital cost (including AFUDC) amortized over 65 years
  - o O&M costs
  - o Interest on non-amortized capital cost
  - o Return on equity;
- Determine net present value of this cost stream;
- Determine annual revenues increasing at 2%/yr that equal this net present value;
- Divide those annual revenues by annual energy generation to determine average revenue/kWh for each year;
- Design rate structure that produces this average revenue/kWh.

The MOU makes no mention of any estimates that may have been developed for the likely average revenue/kWh for each of the three Development Projects.

## 8. Development Studies

Following execution of the MOU, HQ and NLH undertake to carry out studies required for Development Projects (s. 2.7). Until execution of the Definitive Agreements, costs to be funded by HQ, and thereafter by the relevant project entity.

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All work product resulting from these development studies (including that carried out by NLH) is exclusively owned by HQ until such time as the Definitive Agreements are executed, with relevant rights licensed to CF(L)Co or the Gull Island JV Entity. These licences will terminate automatically if the projects are "ultimately not commissioned".

## 9. Concluding remarks

Most of this document has been devoted to understanding the MOU, and identifying the technical questions it leaves unanswered. In this closing section, we will mention the bigger picture choices embodied in it.

Seen as a whole, the MOU is an agreement that, together with the Definitive Agreements that it foresees, will:

- set the prices for power from the existing CF facilities for 50 years: The term could have been shorter or longer, or could have allowed for readjustment during the term, depending on the evolution of external circumstances;
- base those prices on a negotiated value of \$33.8 billion NPV: Schedule F indicates that the block pricing will in some way reflect market value and reflect changes in market value and fairness over time, but there is little margin to do so, since the total value is fixed.
- assign annual prices in a way that appears arbitrary, without any explicit formula or calculation. Annual prices are only shown indirectly (based on volumes and current dollar revenues), making the pricing logic even more impenetrable.
- **fix identical power prices for HQ and NLH.** Unless the NL government chooses to subsidize rates in Labrador, the result will be significant rate increases there.
- **result in considerable profits for CF(L)Co**, which will presumably be distributed to shareholders in the form of dividends,
- give HQ almost total control over whether or not to proceed with the Development Projects, and leaves little recourse for NLH to proceed with other partners if it does not.
- fix prices for power from the Development Projects on a cost-plus basis, without relation to energy markets.

Finally, it is important to note that this is an agreement between two electricity companies, both of which are unregulated, insofar as this agreement is concerned. The MOU has been signed, and it is not subject to review or approval by any entity, regulatory or governmental, on either side. The agreement is obviously of public interest in both provinces. Public entities, and the

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public in general, should have the opportunity to review the final agreements, before they become final commitments.

Given the nature of the MOU that has been signed, the best way forward is likely for the NL government, in its capacity as sole shareholder of NLH, to require that the Definitive Agreements include clauses making them subject to review by the NL Board of Commissioners of Public Utilities (the PUB) and approval by the House of Assembly.

Similarly, I would urge the government of Québec to require that Hydro-Québec ensure that the agreements include clauses making them subject to review by the *Régie de l'énergie*, before they come into force. Should one or the other of these regulators raise significant objections to the negotiated Definitive Agreements, it would be up to the respective governments to give instructions to their respective Crown Corporations, regarding the renegotiation of these agreements.

### APPENDIX I

#### **SCHEDULE E**

#### Overall Allocations of Volumes

	Total MW			CF Existing Plant MW Development Projects M					ojects MW				
Year	NLH	HQ	NLH (Existing)	NLH New Recapture Right	<b>Expiring Block</b>	но	Year	$\neg$	CF Upgrades	CF2	Gull Island	NUH	но
2025	525	4,765	525		0	4,765	21	125	0				0
2026	525	4,765	525		0	4,765	21	126	0				0
2027	525	4,765	525		0		21	127	0				0
2028	525	4,815	525		0	4,765	21	128	50				50
2029	525	4,865	525		0	_	21	129	100				100
2030	525	4,915	525		0	_		30	150				150
2031	830	4,660	525	305	0	4,460		31	200			$\vdash$	200
2032	880	4,660	525	355	0	4,410		032	250				250
2033	980	4,610	525	455	0	4,310		33	300			$\vdash$	300
2034	1,210	5,555	525	505	0	4,260	21	34	350		1,125	180	1,295
2035	1,490	7,550	525	605	0			35	400	1,100	2,250	360	3,390
2036	1,490	7,600	525	605	0	4,160	_	36	450	1,100	2,250	360	3,440
2037	1,490	7,650	525	605	0	4,160	20	37	500	1,100	2,250	360	3,490
2038	1,490	7,700	525	605	0	4,160	20	38	550	1,100	2,250	360	3,540
2039	1,490	7,700	525	605	0	4,160	21	139	550	1,100	2,250	360	3,540
2040	1,490	7,700	525	605	0	4,160	21	040	550	1,100	2,250	360	3,540
2041	1,490	7,700	525	605	0	4,160		141	550	1,100	2,250	360	3,540
2042	1,490	7,700	525	605	0	4,160	20	142	550	1,100	2,250	360	3,540
2043	1,490	7,700	525	605	0	4,160	20	)43	550	1,100	2,250	360	3,540
2044	1,490	7,700	525	605	0	4,160	20	)44	550	1,100	2,250	360	3,540
2045	1,490	7,700	525	605	0	4,160	20	)45	550	1,100	2,250	360	3,540
2046	1,490	7,700	525	605	0	4,160	21	146	550	1,100	2,250	360	3,540
2047	1,490	7,700	525	605	0	4,160	20	147	550	1,100	2,250	360	3,540
2048	1,490	7,700	525	605	0	4,160	20	)48	550	1,100	2,250	360	3,540
2049	1,490	7,700	525	605	0	4,160	21	149	550	1,100	2,250	360	3,540
2050	1,490	7,700	525	605	0	4,160		050	550	1,100	2,250	360	3,540
2051	1,740	7,450	525	605	250	3,910	20	)51	550	1,100	2,250	360	3,540
2052	1,740	7,450	525	605	250	3,910	21	)52	550	1,100	2,250	360	3,540
2053	1,740	7,450	525	605	250	3,910	21	)53	550	1,100	2,250	360	3,540
2054	1,740	7,450	525	605	250	3,910	20	)54	550	1,100	2,250	360	3,540
2055	1,740	7,450	525	605	250	3,910	21	)55	550	1,100	2,250	360	3,540
2056	1,740	7,450	525	605	250	3,910	21	)56	550	1,100	2,250	360	3,540
2057	1,740	7,450	525	605	250	3,910	21	)57	550	1,100	2,250	360	3,540
2058	1,740	7,450	525	605	250	3,910	21	)58	550	1,100	2,250	360	3,540
2059	1,740	7,450	525	605	250	3,910	21	)59	550	1,100	2,250	360	3,540
2060	1,740	7,450	525	605	250	3,910	20	060	550	1,100	2,250	360	3,540
2061	1,990	7,200	525	605	500	3,660	20	061	550	1,100	2,250	360	3,540
2062	1,990	7,200	525	605	500	3,660	21	062	550	1,100	2,250	360	3,540
2063	1,990	7,200	525	605	500	3,660	21	063	550	1,100	2,250	360	3,540
2064	1,990	7,200	525	605	500	3,660	20	)64	550	1,100	2,250	360	3,540
2065	1,990	7,200	525	605	500	3,660	20	)65	550	1,100	2,250	360	3,540
2066	1,990	7,200	525	605	500	3,660	21	066	550	1,100	2,250	360	3,540
2067	1,990	7,200	525	605	500	3,660	21	067	550	1,100	2,250	360	3,540
2068	1,990	7,200	525	605	500	3,660	21	)68	550	1,100	2,250	360	3,540
2069	1,990	7,200	525	605	500	3,660	21	069	550	1,100	2,250	360	3,540
2070	1,990	7,200	525	605	500	3,660	21	070	550	1,100	2,250	360	3,540
2071	1,990	7,200	525	605	500	3,660	21	071	550	1,100	2,250	360	3,540
2072	1,990	7,200	525	605	500	3,660	21	72	550	1,100	2,250	360	3,540
2073	1,990	7,200	525	605	500	3,660	21	073	550	1,100	2,250	360	3,540
2074	1,990	7,200	525	605	500	3,660	21	074	550	1,100	2,250	360	3,540
2075	1,990	7,200	525	605	500	3,660	21	)75	550	1,100	2,250	360	3,540

#### **APPENDIX II**

#### **SCHEDULE G**

Annual schedule of forecasted payments from HQ to CF(L)Co in the New CF PPAs for existing production (in \$B current year dollars)

B	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Payments by HQ to CF(L)Co	0.475	0.525	0.600	0.850	0.785	0.785	0.910	1.035	0.960	1.075	1.125	1.640
	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
	1.695	1.740	1.790	1.845	2.000	2.100	2.155	2.205	2.295	2.360	2.490	2.605
	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
	2.825	3.175	3.195	3.360	3.525	3.950	4.165	4.650	4.870	5.410	5.790	5.960
	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072
	6.000	6.220	6.380	6.600	6.820	6.940	7.060	7.175	7.300	7.415	7.640	7.765
	2073	2074	2075									
	7.985	8.125	8.355									