From: Alastair O'Rielly <alastairorielly[redacted]
Sent: Thursday, August 15, 2019 9:32 PM
To: Admin <admin@MuskratFallsInquiry.ca>
Subject: Share Your Comments Form

Name

Alastair O'Rielly

E-mail

alastairorielly[redacted]

Message

The Commission of Inquiry appears to have carefully and exhaustively reviewed the process and decisions related to the commissioning and construction of Muskrat Falls. The project's cost overruns, which the Province of Newfoundland and Labrador can ill afford, will impose a crippling financial impact on residents in energy cost increases and debt servicing expenses for the foreseeable future.

Should the project have been sanctioned given the risk and province's capacity to absorb such risk? Many, even project champions, with the clarity of hindsight, have concluded that the province should not have proceeded with the project, given the potential for cost overruns and reduced market demand for electricity, both of which are now painfully evident.

Appropriately, significant effort has been expended by the Inquiry into project management and execution, particularly related to the timing, causes and mitigative efforts to contain spiralling costs.

A key issue that warrants consideration is the cost overruns of Exxon's Hebron project and Vale's Long Harbour projects. Both projects were executed in comparable timeframes within the same economy and both projects are similar in scale to Muskrat Falls and are largely concrete and steel structures. The world's largest oil company, Exxon, appears to have incurred cost overruns in the order of 70% by last public count in 2011 and very likely, seriously understated by the time the project was completed in late 2016/early 2017. The public information for Vale's Long Harbour project indicates that this initiative exceeded sanction cost by well over 100%. Muskrat Falls is currently expected to incur final costs of $10.1 B, about 63% above sanction. (Note that this would be 110% over budget if interest expense is considered; however, it isn't known if interest expenses are factored into the cost overruns for Hebron and Long Harbour projects.) While the final costs of Hebron and Vale's Long Harbour projects have not been published, the information that has been provided, as contained in the attached media references, can be used as a proxy of the final cost performance of these projects relative to sanction estimates. Also, of note and relevance are the protracted timelines for completion of both the Hebron and Long Harbour projects.

Notwithstanding the decision-making deficiencies associated with Muskrat Falls sanctioning and monitoring, it appears probable that Nalcor, its contractors and workers, may have outperformed the world's largest oil company and one of the world's largest mining companies in the development and execution of similar projects in the same economy. The Inquiry should consider the possibility that Nalcor's performance in the design and construction of megaprojects actually compares favourably to that of two of the world's largest resource firms. Performance measurement and evaluation are often challenging from an analytical perspective. Generally, performance metrics are applied to program or project objectives, together with projected timelines and costs. However, context is important and it is appropriate to compare performance indicators of other firms/projects of similar scope and scale.

Arguably, Exxon and Vale have the capacity to absorb the risks of cost overruns and negative market shifts relative to the respective Hebron and Long Harbour projects. Clearly, the Province of Newfoundland and Labrador did and does not have the financial capacity to cope with the consequences of significant cost overruns. The evidence seems to show that the project should not have proceeded as financed, given the risks involved and the province's limited fiscal capacity and high debt burden. However, it isn't clear that the project's execution was seriously deficient relative to the two multi-nationals that are in the business of executing projects of similar size as a normal and ongoing part of their business models.

The Commission ought to consider that the flaws in the Muskrat Falls project may not be in the execution, but rather in the sanctioning process and the apparent high tolerance for risk exhibited by Nalcor and the Province, either by commission or omission.

Thank you for considering this 'sidebar' perspective. Please note that I have had no involvement with the project, that I have no friends or family engaged in the project, nor do I have any personal or professional connection that I am aware of to the project's contractors.

Alastair O'Rielly

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https://www.cbc.ca/news/canada/newfoundland-labrador/2b-hydromet-plant-to-be-built-in-long-harbour-1.695105
https://en.wikipedia.org/wiki/Long_Harbour_Nickel_Processing_Plant

CBC

Nfld. & Labrador

Hebron oil project gets OK as costs balloon by billions

Newfoundland expects 1st oil from new offshore field in 2017

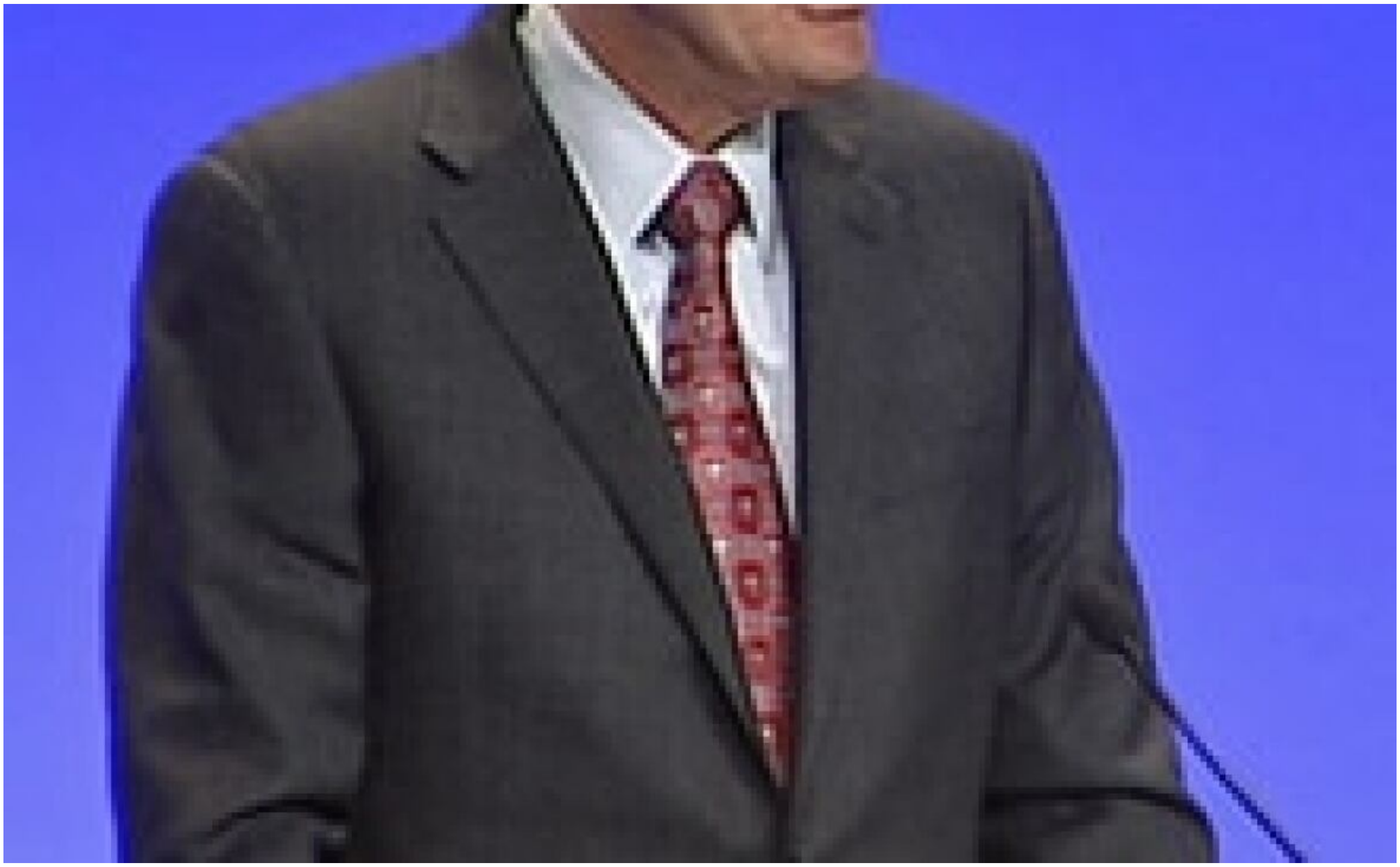
Rob Antle · CBC News · Posted: Jan 04, 2013 4:08 PM NT | Last Updated: January 8, 2013

ExxonMobil and its partners have announced they will go ahead with the Hebron oil project, despite sharply rising costs, creating Newfoundland's fourth producing offshore field and giving a big boost to an industry key to the province's recent prosperity.

The decision, reached New Year's Eve, means construction and fabrication of the Hebron platform will proceed. Peak employment levels exceeding 3,000 are expected in 2014, according to the Hebron website. There are roughly 1,200 people currently working on the project in Newfoundland and Labrador.

The first oil is expected to be produced by the end of 2017.

"Project sanction marks a significant milestone for the Hebron project," Geoff Parker, Hebron's senior project manager and vice president of ExxonMobil Canada Properties, said in a release Friday.



ExxonMobil's Geoff Parker says the Hebron project was sanctioned on New Year's Eve. (CBC)

ExxonMobil, which holds a 36 per cent share of Hebron, is the operator of the project.

The sanction decision comes despite ballooning costs of billions more than estimates from less than two years ago.

In 2011, ExxonMobil indicated that it would cost $8.3 billion to build Hebron, plus another $5.8 billion to operate it until the oil runs out in three decades. Total: just over $14 billion.

On Friday, the oil giant said capital costs alone now account for $14 billion.

Company officials told CBC News there are some additional capital costs thrown into the mix, related to tying a separate pool of oil back to the Hebron platform. They could not break out those specific numbers.

But much of the increase of billions relates to increased construction and drilling costs, plus current market and foreign exchange rates.

ExxonMobil confirmed that operating costs are not included in that total, driving the total cost up into the $20-billion range over the life of the project.

Parker said construction of the gravity-based structure has already begun at the Bull Arm fabrication site, one hour west of St. John's. He said fabrication work on the topsides module is expected to start this year.

"Co-venturer sanction confirms we will continue with this significant project for the province," Parker said.

Sanction called welcome news

The Newfoundland and Labrador government welcomed the announcement.

"Hebron will support jobs, the economy and strengthens our province's position as an energy warehouse," Premier Kathy Dunderdale said in a statement.

Natural Resources Minister Jerome Kennedy noted that the project will add new major infrastructure to the Jeanne D'Arc Basin, which is also home to Newfoundland's three current producing fields.

Hebron will become the fourth field off eastern Newfoundland to go into production. (Hebron Project)

"We are optimistic that the development of Hebron will lead to further offshore opportunities and additional developments in the future," Kennedy said.

Last fall, the province and ExxonMobil reached a deal to end a dispute over construction of a major Hebron component.

While two modules will be built in the province, a third, the drilling equipment set, will now be constructed outside Newfoundland and Labrador.

ExxonMobil agreed to pay $150 million in compensation to move the work.

Meanwhile, Ottawa also lauded the sanction decision.

"Today's announcement is welcome news for jobs and economic growth in Newfoundland," said Chris McCluskey, a spokesman for Natural Resources Minister Joe Oliver.

"Our government is supporting resource projects that increase jobs and prosperity across Canada."

Estimate of 700 million barrels

The Hebron field, located 350 kilometres southeast of St. John’s, is estimated to hold more than 700 million barrels of recoverable resources.

The platform is being designed for an oil production rate of 150,000 barrels of oil per day.

In addition to ExxonMobil, the other Hebron co-venturers are Chevron Canada Resources (26.7 per cent), Suncor Energy Inc. (22.7 per cent), Statoil Canada (9.7 per cent) and Nalcor Energy (4.9 per cent).

CBC

Nfld. & Labrador

$2B hydromet plant to be built in Long Harbour

CBC News · Posted: Nov 12, 2008 12:14 PM NT | Last Updated: November 12, 2008

(CBC)

Vale Inco will build a cutting-edge plant at Long Harbour in southern Newfoundland to process nickel extracted from Labrador's gigantic Voisey's Bay mine, the provincial government said Wednesday.

In a statement, the government said Inco planned to use water-based hydromet technology at the plant.

Inco had tested the hydromet technology, which it said had never been used on the type of ore present at Voisey's Bay, at a demonstration plant in Argentia that closed earlier in 2008.

Inco had committed to building a more conventional refinery if it found the hydromet technology would not work.

Natural Resources Minister Kathy Dunderdale called the announcement another benchmark that has been met and said she was delighted with the news.

By the numbers

$2.17 billion: Capital costs of hydromet project.

1,630: Average number of people working each year on three-year construction of hydromet plant.

450: Anticipated permanent workforce of hydromet plant, starting in 2012.

$20.7 billion: GDP value of Voisey's Bay mine and mill and Long Harbour hydromet plant to Newfoundland and Labrador.

$4.3 billion: Purchase price Inco Ltd. paid for Voisey's Bay rights in 1996.

28.9 million: Number of tonnes of recoverable ore in Voisey's Bay ovoid. The site also includes at least 38.5 million more tonnes of "indicated" resource and 6.3 million tonnes of "inferred" resource.

A nickel processing facility for Voisey's ore has been at the heart of political battles for more than a decade. When the development deal was finally signed in 2002, the Conservatives were in opposition and criticized the agreement as being full of holes.

The government still has very serious concerns about the agreement, according to Dunderdale. However, she said Vale Inco has met every major committment in the deal so far.

"The fact that we are dealing with Vale Inco, which is an ethical company and one that we have a good relationship with and that we work well with, makes all of that easier," she said.

The project is expected to cost about $2 billion. Inco expects to finish construction before 2012.

Vale Inco had committed to make a decision by Nov. 15 on which method it would use.

The question of how to process ore mined at Voisey's Bay — considered one of the world's highest-quality discoveries of nickel and cobalt — has been a pointed issue in Newfoundland and Labrador for more than a decade.

Indeed, former Liberal premier Brian Tobin fought a provincial election in 1999 largely over how the Voisey's Bay bonanza would be developed. Tobin had insisted that every bit of ore at the mine be milled and refined within the province.

Inco's stalemate with the provincial government lasted until a 2002 development deal, in which the company pledged to build a processing plant within the province.

In return, the government allowed the province to ship concentrate for processing elsewhere, on the condition that an equivalent amount would later be processed within Newfoundland and Labrador.

Natural Resources Minister Kathy Dunderdale, shown earlier in the year, said Wednesday she is delighted with Vale Inco's decision. ((CBC))

At the time, Danny Williams — then the leader of the Opposition, and not yet premier of the province — had criticized the deal, saying that one could "drive a Mac truck" through loopholes.

Liberal Leader Yvonne Jones welcomed the announcement, and pointed out that Vale Inco is living up to commitments that were made six years ago.

"There have been many critics over the years, including the current premier, who didn't believe that Vale Inco would construct a state-of-the-art hydromet facility in our province," Jones said in a statement Wednesday.

"Ever since the agreement was signed, I had tremendous faith that our business partners at Vale Inco were committed to this project and wanted to see significant benefits accrue to the people of Newfoundland and Labrador. I am pleased that the project can now proceed to the next stage as was intended."

The Newfoundland and Labrador government had advocated for a hydromet-based plant, as it would create more jobs and economic benefits for the province. A traditional smelter would have seen concentrate shipped out of Labrador for processing at Inco facilities in Ontario or Manitoba, and then sent back to Newfoundland and Labrador for final refinement.

Tailings from the hydromet plant will be buried in nearby Sandy Pond. Vale Inco said using an existing pond is far better for the environment than building a new disposal unit from scratch. Environmentalists, including the Sierra Club of Canada, have been strongly critical of the move.

WIKIPEDIA

Long Harbour Nickel Processing Plant

The **Long Harbour Nickel Processing Plant** is a Canadian nickel concentrate processing facility located in Long Harbour, Newfoundland and Labrador.

Operated by Vale Limited, construction on the plant started in April 2009 and operations began in 2014. Construction costs were in excess of CAD $4.25 billion.[1] Construction involved over 3,200 workers generating approximately 3,000 person-years of employment. Operation of the plant will require approximately 475 workers.[2]

Production began in July 2014, reported in November 2014.[3] Vale's nickel processing plant in Long Harbour received its first major shipment from its Labrador mine in Voisey's Bay in May 2015. As of that date, a small proportion of the plant's raw materials came from Voisey's Bay but the majority were imported from Indonesia. A spokesman for Vale said 100 per cent of the Long Harbour facility's production materials will come from Voisey's Bay by early 2016.[4]

Using the metal processing technology of hydrometallurgy, the plant is designed to produce 50,000 t (49,000 long tons; 55,000 short tons) per year of finished nickel product, together with associated cobalt and copper products. The hydrometallurgy technology was piloted at a demonstration plant that opened in Argentia, Newfoundland and Labrador in 2004. This demonstration plant operated until 2008 and was instrumental in helping Vale decide to use the hydrometallurgy process for the Long Harbour processing plant.

A processing plant on Newfoundland was one of the requirements established by the Government of Newfoundland and Labrador in order to exploit the nickel deposit at the Voisey's Bay Mine in Labrador. The bulk carrier MV *Umiak I* was one of several ice-strengthened bulk carriers built to transport nickel concentrate from Voisey's Bay to the Long Harbour Nickel Processing Plant.

The Long Harbour Nikel Processing Plant was built on a partially brownfield site near the port of Long Harbour. The facility consists of a wharf for offloading nickel ore concentrate from bulk carriers, crushing and grinding facilities, a main processing plant approximately 2 km (1.2 mi) south of the port, a pipeline to supply process water, an effluent discharge pipe and diffuser, and a residue pipeline to a nearby disposal area. The hydrometallurgical process in the plant will pressure-leach the nickel ore concentrate in acidic solutions to separate iron, sulfur and other impurities from nickel, copper and cobalt.[5]

Long Harbour Nickel Processing Plant

Location of the Long Harbour Nickel Processing Plant in Newfoundland and Labrador.

General information	
Type	nickel processing plant
Location	Long Harbour, Newfoundland and Labrador
Country	Canada
Coordinates	47°25′27″N 53°49′0″W
Construction started	April 2009
Completed	Fall 2013 (Phase One Construction)
Cost	4.75 billion CAD
Owner	Vale Limited

On June 11, 2018, Premier Dwight Ball announced Vale is moving forward with its underground mine at Voisey's Bay. Ball stated that the move will extend the mine's operating life by at least 15 years.[6] First ore is expected by April 2021 with processing to take place in Long Harbour.

References

1. "Long Harbour production should start in 2013" (http://www.cbc.ca/news/canada/newfoundland-labrador/story/2013/03/30/nl-long-harbour-production-330.html). CBC. Retrieved 15 August 2013.
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5. "Vale Long Harbour Nickel Processing Plant - EPCM" (http://www.fluor.com/canada/projects/projectinfopage.aspx?prjid=258#projectTitle). Fluor Corporation. Retrieved 15 August 2013.
6. [1] (http://www.cbc.ca/news/canada/newfoundland-labrador/voiseys-bay-mining-announcement-1.4700644)

External links

- Vale Ltd: Voiseys Bay Development - Processing (http://vinl.valeinco.com/OperationsProcessing.asp)