# Day 8 - September 19, 2012 - Edmonton

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**Features for enhanced use:**
- Link to the day's transcript
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## Examination by Hana Boye for the Haisla Nation (continued) 23154

**Insurance**

Ms. Boye set the stage by reiterating that Northern Gateway Pipelines (NGP) has decided that it will hold the insurance coverage for both the construction and operational phases of the Project on a standalone basis, that Mr. Carruthers had agreed that they could get a preliminary indication of a coverage package at this time, and that NGP would consider a level of liability insurance no less than $250 million.

Mr. Carruthers confirmed that it was within the last quarter that NGP made the standalone determination. "We recognized that in the event an incident happened within the broader Enbridge company there may not be funds available for Northern Gateway."

Ms. Boye questioned whether mandatory coverage would provide the greatest assurance to the Canadian public. Mr. Carruthers said, "not necessarily," that there is no interest to have a mandatory versus elective insurance coverage be any different.

Asked what the premiums would be for coverage of $500 million, $1, $1.5 and $2 billion, Mr. Carruthers said he would undertake to obtain an answer for $250 million, the coverage which has had some preliminary discussion.

Ms. Boye asked if NGP's lenders expect to have precedence for repayment for their loans ahead of pollution liability claims. Mr. Roth replied that it is a function of the NEB's legislation that cleaning up a spill takes precedence over everything.

Ms. Boye stated that the Haisla want to know that all costs related to spills will be guaranteed. Will Enbridge guarantee as a last resort that it will cover any outstanding costs that are not previously covered by insurance or through other mechanisms? Specifically, would Enbridge guarantee Enbridge's share in the partnership?" Mr. Carruthers undertook to obtain an answer. 23246

Mr. Carruthers stated that the pro forma financial statements include $10.4 million in annual insurance premiums for the operational phase of the pipelines to cover all risk property, general liability, auto and ancillary coverage. The interest rate for "debt financing" is 6.8%.

**Increase in tolling rates, project cost & return on equity**

Ms. Boye sought an explanation for the increase in tolling rates to $3.68 and $5.23 on the oil and condensate pipelines. 23270

Later in the day, the reply to JRP IR9.5 was referenced [B58-2] in which the above-noted tolling rates are related to Enbridge taking on capital cost risk in which case its return on equity would be 12%, or not taking on that risk in which case RoE would be 11% (and tolling rates would be $3.58 and $5.07.

In the 2012 updated Wright Mansell report (B83-4) capital costs had increased from $5.5 billion to $6.4 billion. Dr. Mansell explained the increase as mainly because of $200 million for the construction of new large tugs; $250 million for marine-based emergency equipment; $80 million for upgrading navigation aids and radar on the North Coast, and the recalculation to reflect increased costs in 2012 (“2012 dollars from 2009 dollars”). 23315

Mr. Carruthers was asked if the recently announced increased spending on pipeline design and ongoing safety monitoring of between $400 million and $500 million has been incorporated in the capital and operating budgets, or toll rates. He agreed that they had not. He also confirmed that other commitments may also affect capital and operating costs and tolls, and that those costs would not be incorporated until and if approval is obtained for this project. 23447

Ms. Boye asked about cleanup and environmental damage cost expectations. Dr. Ruitenbeek referred her to Figure 4.5 in Wright Mansell 2012 where it is shown that “About 68 percent of the costs are for tanker spill, 28 percent for pipeline spill and 4 percent for terminal spill.”

Referring to Table B5, Ms. Boye confirmed that it sets out oil spill cost expectations with the project at $12.43 million per year. It is derived from assigning a clean-up cost and a damage cost to a spill volume and applying a probability factor based on the annual likelihood of the spill. Dr. Ruitenbeek added that it captures the probabilities of different types of threats. 23395.

On September 7th Dr. Ruitenbeek stated that, “we’re looking at an exposure of about $60 million in immediate potential clean-up costs once every 250 years or so.” Asked by Ms. Boye why Kalamazoo was not factored into spill estimates, Dr. Ruitenbeek confirmed that it is an outlier in terms of its high cost and they “are not looking at outlier spill costs to define [their] cost envelope.” 23429

**Significance of large events in liability markets**

Ms. Boye used an article in the April 2012 “Energy Market Review” to aid in an exchange about the significance of recent large events – Macondo, Marshall (Kalamazoo)– to the liability market. 23441 She highlighted a quote which begins, “The reasonably quick succession of events at Macondo and Enbridge (Kalamazoo) had the effect of generating debate regarding the limits purchased.” She asked Dr. Ruitenbeek, “Don’t these quotes indicate that the insurance industry does not see the Marshall, Michigan event as an outlier but a benchmark?” Dr. Ruitenbeek did not agree and provides a lengthy list of reasons why not. 23464 Ms. Boye introduced an excerpt from the NTSB findings which is harshly critical of Enbridge. Dr. Ruitenbeek continued his list of reasons why the characterization is reflective of the company. 23469

Ms. Boye posited a spill in Haisla territory and asked if it is NGP to whom claims should be presented for non-market losses. The conversation ranged through what traditional use information NGP had received from the Haisla, whether there are examples of claims for non-market losses, and legal liability regimes and what is already in IR responses. Mr. Roth says these are legal questions, the Chairperson asked Ms. Boye to reframe her question. Ms. Boye replied that the “question was to identify where these costs are calculated within the liability context,” that she would end that line of questioning and also her questions. 23512

Ms. Boye was referred to NGP reply to Haisla IR 2 at [B45-8] with respect to some of these questions, including an example of non-market losses.

## Examination by Brenda Gaertner for Coastal First Nations 23570

### Introduction to Coastal First Nations

Ms. Gaertner began by introducing the Coastal First Nations (CFN) and her team at the Edmonton hearings: Guujaaw (President of the Great Bear Initiative Society and CFN), Terri-Lynn Williams-Davidson, Art Sterritt (Executive Director), Martin Glassman, Dr. Tom Gunton.

I am Brenda Gaertner from Mandell Pinder, and with me is Kennedy Bear Robe, who is an articling student with us from Siksika.

Coastal First Nations is an alliance of the First Nations of British Columbia's North and Central Coast and Haida Gwaii. The members of the Coastal First Nations are the Wuikinuxv, the Heiltsuk, the Kitasoo, the Nuxalk, the Gitga'at, the Haisla, the Metlakatla, Old Massett, Skidegate, and the Council of the Haida Nation.

### Preliminary matters

Ms. Gaertner stated that CFN has made a number of motions to adjourn this process, most recently in August of 2012. That motion came shortly after the Applicant filed voluminous new materials in the name of reply, and the recent revisions to the National Energy Board, and the subsequent revisions to your Terms of Reference. These events, coupled with the Panel's clarification of your Terms of Reference in your September 10th letter raises continuing concerns for Coastal First Nations around these proceedings, including these oral hearings.As a result of that, “I have to put three preliminary matters to you on the record and, particularly, as part of the oral tradition, these will be heard and witnessed.

First, for the Panel, for the Project Applicant, for the witnesses and other participants, you must be reminded that the First Nations of Coastal First Nations have never ceded their territories, nor their laws, nor the governance and stewardship rights and responsibilities over the lands and waters of the resources. They continually continue to actively govern and protect these territories according to their own laws, customs, and traditions. Our participation here does not in any way concede that the federal or the provincial governments have exclusive jurisdiction to make a decision about whether this project will proceed. 23586

Mr. Roth for NGP and the Chairperson both interject, and after discussion, Ms. Gaertner continues. She said, “The CFN has to expressly reserve their right to challenge the validity of these processes, including your Terms of Reference.” 23603

Ms. Gaertner asked Mr. Carruthers if NGP has “concluded that it’s in your best interest to engage with First Nations … and that … your policy [says] you recognize their legal and Constitutional rights. With that confirmed by Mr. Carruthers, Ms. Gaertner then asks if “Enbridge also commits or interprets [the] corporate policy as a goal of aligning [its] business interests and economic interests with the interests of First Nations?” Mr. Carruthers confirms this. Ms. Gaertner: “So you see the benefit of conducting studies to specifically address the First Nations’ concerns on the ground?” Also confirmed.

Ms. Gaertner then said, “So I find it odd, when Mr. Anielski said yesterday that for some of the economic environmental costs that … we don’t have key bits of information around the implications associated with this project to salmon, we don’t have key information as it relates to specific geographical locations here or cumulative impacts, we don’t have any of that type of information, and he suggested that was the government's fault. I would see that as a corporate responsibility to make sure that the studies that were necessary were before the Panel. And so I just wonder why it is that it’s somebody else’s responsibility.”

**Unlocking “consult”**

The transcript continues for some time, primarily with Ms. Gaertner, Mr. Roth, and Mr. Carruthers. Eventually, Mr. Carruthers said “We are prepared to make all reasonable efforts to consult…” to which Ms. Gaertner responded, “That word is very loaded, “consult”. So I want to unlock that.” 23671

Ms. Gaertner asked, “Are you prepared to do the studies that they require?” Mr. Carruthers responded, “I think we have tabled significant information, sufficient that a determination could be made whether the project should proceed, we would continue to inform that as we go forward.”

This discussion went back and forth until the Chairperson stopped it, suggesting that Ms. Gaertner wasn’t sticking to issues appropriate for Edmonton, and this may belong in Prince George or Prince Rupert. Ms. Gaertner disagreed, but said she was almost done, “if it helps.” 23715

**Marine planning**

Ms. Gaertner asked, “Why was it that Enbridge lobbied the federal government to cancel the marine use planning processes through the PNCIMA Initiative?” Mr. Carruthers replied, “I don’t believe that happened. 23737

Ms. Gaertner asked, ”So are you denying that Enbridge lobbied the federal government to have the PNCIMA funding withdrawn and their participation in the PNCIMA Project slowed down?” Mr. Carruthers: “I don’t believe we lobbied the federal government to do that. We would have raised concerns about the funding in terms of who it was coming from, in terms of an organization that was funding it and might have had some additional influence because of the funding."

The Chairperson stopped the discussion again, and directed Ms. Gaertner to move to another line of questions. 23741 Ms. Gaertner made some comments, and Mr. Roth made some comments.

**Section 35 of the Constitution Act**

During Ms. O'Driscoll's questioning on September 6, she asked Dr. Mansell about Section 35 of the Constitution Act and how it factored into his work. He replied, "It's something that's simply excluded from our report." He elaborated that at his level of analysis, he was first looking at whether the project "expands the pie". If it does, then the next question is the distribution of costs and benefits. At that point, it would typically be a case where governments would be involved. Ms. Gaertner confirmed with Dr. Mansell that he did not consider outstanding claims as they relate to Section 35. 23754

Ms. Gaertner then asked Mr. Carruthers, "Do you agree that Dr. Mansell's assumption that there will be no liabilities as it relates to section 35 for this project, if it were to proceed?" This ends up with the Chairperson and Mr. Roth, again, and Ms. Gaertner reframes the question again.

"Mr. Carruthers, is it your position that the issues as it relates to Section 35 liabilities are really matters for the governments but not matters for Enbridge to deal with?" Mr. Carruthers replied, "I would not be able to speak from a legal perspective as to what liability might be the outcome of that decision [to approve the project]." 23802

**Enbridge's environmental policy**

Ms. Gaertner asked about Enbridge's environmental policy (Vol 1, Sec 9, of the Application), and confirmed that Enbridge has had spills since the policy has been in place. 23814

She then turned to (Exhibit B110-2) which is a table of Enbridge's spill statistics: 1998, 13,632 kilometres of pipelines and 39 reportable spills; 2010, 24,613 km and 80 spills.. "How is it that we're learning? Those spills reflect a pretty well consistent spill record." 23838

Mr. Carruthers replied, "In the 91 reportable spills in 2010, 78 had a volume of less than 10 barrels. So 91 reportable spills, 10 barrels -- or 78 had a volume of less than 10 barrels. If we look at 2009, we had 103 reportable spills. Eighty-six (86) had a volume of less than 10 barrels. The vast majority, 92, occurred at Enbridge facilities and were completely contained and recovered quickly, cleaned up with minimal or no environmental impact. (The transcript or Mr. Carruthers does not explain where he obtained this information as it is not available on or does not agree with B110-2.)

Ms. Gaertner asked if NGP would develop environmental standard for employees and contractors, and would it review those standards with CFN? Mr. Carruthers: We would welcome discussion with CFN. 23858

**Tankers**

Ms. Gaertner noted that the Application describes two business models for tanker vessel ownership. Mr. Carruthers said there has been no discussion with potential ship owners, and Enbridge has not considered owning tankers itself. 23864

Ms. Gaertner then said, “From a liability perspective, since … you're extending your pipeline routes off the land and into the water now, would you agree with me, from a liability perspective, it would be a lot simpler for the Canadian public and for my clients if Enbridge [was] simply owner those tankers also?” Mr. Carruthers: “No, I do not agree with that.” Ms. Gaertner: “So relying on somebody else's insurance and relying on other people's approaches is easier?” Mr.Carruthers disagreed.

Ms. Gaertner replied, “So relying on somebody else's insurance and relying on other people's approaches is easier? In his reply, Mr. Carruthers said that the “polluter pay” principle works well, and he repeated that Enbridge will not own a tanker. 23893

Mr. Carruthers accepted an undertaking to find out how long a claim can remain active before it must be paid out or completed under Enbridge’s current policy. 23918

**Baseline studies**

Ms. Gaertner asked Mr. Carruthers if he agreed with her that baseline studies to study impacts of a project should really be done before the project begins.” Mr. Carruthers replied, “Certainly we would look to do the required studies based on the Terms of Reference set down by the Joint Review Panel and that information has been submitted.”

Ms. Gaertner asked about base studies for salmon and salmon habitat, and Mr. Carruthers stated that he believed there is sufficient information available for the Panel to make a decision. 23938

**Public interest**

Asked if the definition of the public interest included a balance of costs and benefits, a balancing of economic, environmental, and social interests that the Panel would need to consider, Mr. Carruthers agreed.

Ms. Gaertner then turned to the Application and asked Mr. Carruthers if “generally all of your original material was a consideration of the benefits and there was little to nothing … on the costs?? He replied that the application was structured to address a number of issues, but it was a very extensive review of both the benefits and the potential impacts.

Ms. Gaertner then asked whether it is correct that it wasn't until the reply evidence "that you began to do a cost benefit analysis and put that before the Panel. Dr. Mansell said that is correct. 23951

She asked how long Mr. Earnest and Dr. Mansell have been working on Enbridge projects. Dr. Mansell said maybe five or six years, on a relatively few projects. Mr. Earnest said the Clipper project was the first. She also asked Dr. Ruitenbeek and he replied March 2012. Mr. Anielski was also March 2012.

**Theme of not considering First Nations**

"Throughout the cost benefit analysis there's a theme of not considering the unique contributions and concerns and risks with this project as it relates to First Nations. Was that an instruction from you, Mr. Carruthers?" asked Ms. Gaertner.

Dr. Mansell replied, "It is correct that our analysis assumes equal standing of all Canadians. We have not segmented analysis into any groups smaller than government versus private sector in the cost benefit analysis." 23975

**Economic impacts in the public interest study**

Ms. Gaertner asked, "Are we correct that Enbridge has concluded that the economic impacts are the major public interest benefit of the project, and on that basis you're relying on the economic impacts in both the Muse Stancil and the Wright Mansell report, correct? That the economic impacts are the major public interest benefit of this project?" Mr. Carruthers replied, Yes, we're using both the Mansell and Muse studies as a basis for that determination." 23997

Dr. Mansell answered the question saying "we addressed that issue in a number of ways" and provided a list, summing up that "we have not distinguished between gross and net impacts as we have between gross and net benefits in the cost benefit analysis, but implicitly those impacts should be read as net, not gross." 24000

Ms. Gaertner focused on total employment, as given in the 2010 and 2012 Wright Mansell reports. She said, "In your first report, you estimate that the Northern Gateway Project would create about 558,000 person years of employment, and that's increased now to over 907,067 person years of employment." She contrasts this to the Enbridge website which claims 1,150 permanent jobs and 62,700 person years of employment. "How many jobs have we got?"

Mr. Carruthers confirmed that 62,700 person years of employment during the construction phase. Dr. Mansell said the 907,000 figure includes direct, indirect and induced employment out to 2048.

The discussion about employment goes on for some time, and includes a review of employment impacts in Alberta. Dr. Mansell said that the 2012 Alberta labour force would be 2,253,100 and the employment number associated with NGP over the period to 2048 would be 11,798. 24100

Ms. Gaertner asked “Are you assuming that all of the people that would be employed on the Northern Gateway Pipeline would otherwise be unemployed for the next 30 years? The numbers that you put forward as an impact here requires the assumption that they would otherwise be unemployed for the next 30 years; is that correct?”
Dr. Mansell: “Yes.” 24173
Ms. Gaertner said she will be referring frequently to Table 5.1 of the cost benefit analysis (B83-4) 24182

**Table 5.1: Summary of Cost Benefit Results for Base Case and Sensitivity Cases**

| Components of Cost Benefit Analysis, Net Present Values at 8% (million 2012 Cdn$) | Base Case | Sens # 1 | Sens # 2 | Sens # 3 | Sens # 4 | Sens # 5 |
|---|---|---|---|---|---|---|
| **Direct Cash Flows from Project** | | | | | | |
| Revenues less Investment & Operating Costs before interest payments & after taxes | (527) | (527) | (527) | (1,053) | (1,053) | (527) |
| Property Taxes | 427 | 427 | 427 | 427 | 427 | 427 |
| Income Taxes | 387 | 387 | 387 | 387 | 387 | 387 |
| **Adjustment for reducing unemployment** | 41 | 41 | 41 | 37 | 37 | 41 |
| **Cost from reduced volume on Mainlines** | (416) | (416) | (416) | (831) | (831) | (416) |
| **NGP "Needed" or not** | 0 | 0 | 0 | 0 | (2,611) | 0 |
| **Canadian Oil Price Uplift** | | | | | | |
| to Private Sector | 17,851 | 0 | 3,090 | 3,090 | 3,090 | 17,851 |
| to Governments | 9,367 | 0 | 1,622 | 1,622 | 1,622 | 9,367 |
| Cost to Cdn refineries | (3,476) | 0 | (851) | (851) | (851) | (3,476) |
| **Environmental Impacts: possible Cleanup and Damages** | | | | | | |
| Other | (9) | (9) | (9) | (18) | (18) | (9) |
| GHG | (32) | (32) | (32) | (63) | (63) | (32) |
| **Oil Spills: possible Cleanup & Damages** | | | | | | |
| Onshore | (22) | (22) | (22) | (45) | (45) | (6,485) |
| Marine Terminal | (3) | (3) | (3) | (7) | (7) | (981) |
| Offshore | (56) | (56) | (56) | (112) | (112) | (16,149) |
| **TOTAL NET BENEFIT** | 23,533 | (209) | 3,651 | 2,582 | (29) | (0) |
| **Overall Social Rate of Return (IRR)** | 32.8% | 7.6% | 17.6% | 11.4% | 8.0% | 8.0% |

Base Case
Sensitivity Case # 1 Without Oil Price Uplift
Sensitivity Case # 2: Oil Price Uplift halved & only for 5 Years
Sensitivity Case # 3: Double Costs and Halve Benefits, & only 5 years of Oil Price Uplift
Sensitivity Case # 4: Double Costs and Halve Benefits, & only 5 years of Oil Price Uplift & NGP not Needed for Oil Transport until 2024
Sensitivity Case # 5: Oil Spill Costs set high enough to offset all other benefits in Base Case (NPV8=0)

Ms. Gaertner looked first at the sensitivity cases with questions for Dr. Mansell. At one point Dr. Ruitenbeek added a comment about Sensitivity Case #5, with an oil spill. He said, That's a simulation, “a break-even analysis because we increased the environmental costs across the board until the net project benefit was driven to zero. So it's called a break-even analysis.”

“And as we said on the first day when we slightly updated some of the numbers, this sensitivity is now to the point where you could increase all environmental costs, including oil spill costs, by a factor of approximately 284, I believe, before you end up with a total net benefit of zero. And that's what sensitivity No. 5 says.” 24206

Dr. Ruitenbeek adds an informative explanation to the cost-benefit work beginning at paragraph 24242.

Ms. Gaertner questioned the "common-sense" of oil spill costs, using the $45 million indicated in Sensitivity Case #2. Dr. Ruitenbeek suggested that "the missing link in your calculation is in fact the probability of spill occurrence. And in that respect, all of these expected costs represent also the costs after an adjustment for their probability of occurrence." 24256

**Alternatives in the cost benefit analysis**

Ms. Gaertner stated she wished to," talk about … alternatives when doing a cost benefit analysis. Dr. Mansell and Dr. Ruitenbeek, would you agree that it's best practice and actually quite typical in a benefit cost analysis to compare and evaluate alternatives to see which one would meet a public interest objective or any other of the objectives that might be used in a cost benefit analysis?"

Dr. Mansell replied that a cost benefit analysis can be used basically for four things:
- to evaluate a particular project and test its economic viability;
- to compare two projects which would produce the same outcome or same product;
- to evaluate two projects but for different objectives; and
- to evaluate optimal timing.

In the case of an application such as [Northern Gateway] where you've got a very specific project, one project that goes before regulatory tribunal and that tribunal has to make a decision on that project, you really only have the opportunity to use the first -- cost benefit for the first objective; that is, to evaluate that particular project that is before you. 24276

A series of questions and replies follow, with Ms. Gaertner examining alternatives, and why it might have been reasonable to include examinations of alternatives like the Kinder Morgan pipeline, the Enbridge Mainline Expansion to Eastern Canada and the proposed TransCanada conversion.

**Coastal First Nations need to assess alternatives**

Ms. Gaertner said, "In this regulatory setting, Coastal First Nations are being asked to look at a project that has quite a lot of implications to them and I think it's a quite natural question to say: What other ways could these benefits be achieved? What are the costs associated with those ways? It's not hypothetical at all. It's a quite reasonable assessment to look at different alternatives and whether they meet the public interest and what different -- and how to weigh them." 24306

Mr. Carruthers responded, "The purpose of the project was to provide access for Canadian oil to large and growing international markets comprising existing and future refiners in Asia and United States west coast. That was the primary objective of the project. The other ones that you described would not have achieved that objective."

Ms. Gaertner asked if the last $500 million increase is included in the analyses, to which Dr. Mansell stated that the increase was not included. 24312

**Taxes in the cost benefit analysis**

Ms. Gaertner asked Dr. Mansell, Would you agree that, generally, government taxes are only included as benefits in the cost benefit analysis when two basic requirements are met? The first one that they're incremental tax revenue, meaning revenue over and above what this project or its reasonable alternative would generate. And then second, that the tax revenue is not offset by higher cost to government of a particular project. Dr. Mansell replied, Yes, that is a general principle that one applies in cost benefit analysis."

After some discussion, it emerged that the cost-benefit analysis in Wright Mansell does not follow these general principles and instead shows gross revenues to governments.

Ms. Gaertner concluded that their report is incomplete and the cost benefit analysis doesn't meet standard practice. 24351 & 24367

**Employment in the cost benefit analysis**

Ms. Gaertner confirmed that in one of the sensitivity cases they assumed that 5% of the construction workers would otherwise be unemployed. Dr. Mansell stated that it was an assumption in one of the cases, and the only purpose of that sensitivity case is to show what a variation in that assumption would mean for the overall result.

He explained: "If most of the individuals would otherwise be unemployed, in a cost benefit analysis, what you do is then you put a very low value on that labour. In other words, rather than valuing the labour at the going wage, it's valued at zero. It doesn't have a significant alternative cost. What that does is increase the net benefit. So the more you assume that the labour would be otherwise unemployed, the larger the net benefit. 24376

Ms. Gaertner put up the NEB's Supply and Demand Forecast for 2011 and directs Dr. Mansell to a paragraph at the end, which is a quote from the Petroleum Human Resources Council of Canada to the effect that a developing shortage of skilled workers facing the oil and gas industry and predicting a requirement of 130,000 new hires by 2020. 24405

Dr. Mansell would not comment on the statement. Nor would Mr. Earnest.

**Displacement on other pipelines in NGP's early years**

Ms. Gaertner's last question for the day is to Dr. Mansell about costs for reduced volumes or surplus capacity on the NGP pipelines determined and other details. Dr. Mansell said, "I know we answered an IR just a few days ago on that. Mr. Roth said, I think it would the Coastal First Nations response. [Exhibit B110]. Dr. Mansell then reads part of the reply into the record. "Because Western Canadian crude production rises gradually rather than in large annual increments sufficient to fill Northern Gateway from the onset of operations, unless there was shut in production there would be some reductions in the movements of Western Canadian crude oil to the US market. The modeling shows that the majority of this displacement occurs in the years 2019 to 2021, with all displacement ending by 2026.” All displacement is assumed to be on Enbridge lines, and the reduced tolls will be borne by Enbridge.