

Northern Gateway Pipelines Limited Partnership ("Northern Gateway ")  
 Section 52 of the *National Energy Board Act*  
 Application for Enbridge Northern Gateway Project  
 NEB File No.: OF-Fac-Oil-N304-2010-01 01

Northern Gateway Information Request No. 1  
 To: Coastal First Nations

<b>Composition of the Coastal First Nations</b>		
<b>1.1</b>	<b>Reference:</b>	Written Evidence of the Coastal First Nations (21 December 2011) at pages 5-6 (A2K0J7).
	<b>Preamble:</b>	<p>Northern Gateway requires further understanding of the basis of Coastal First Nations participation in the hearing. Members of the Coastal First Nations are listed at pages 5-6 of the Coastal First Nations evidence as follows:</p> <ul style="list-style-type: none"> <li>• Haida: Old Massett Village Council, Skidegate Band Council, and the Council of the Haida Nation</li> <li>• Haisla: Kitimaat Village</li> <li>• Tsimshian: Kitasoo/Xaixais, Gitga'at, Metlakatla</li> <li>• Nuxalk</li> <li>• Wuikinuxv</li> <li>• Heiltsuk</li> </ul>
	<b>Request:</b>	<p>(a) Please confirm that with the exception of the Wuikinuxv, each of the Coastal First Nations members has intervened in this proceeding in its own right, and each has provided submissions or evidence to the Panel in its own right.</p> <p>(b) Please advise as to the source(s) and amounts of funding accessed by the Coastal First Nations to prepare its evidence and experts reports, including funding from members, government, and third party foundations (e.g. Tides Canada; Gordon and Betty Moore Foundation; Rockefeller Foundation; Bullitt Foundation).</p>

<b>Risk Assessment</b>		
<b>1.2</b>	<b>Reference:</b>	<p>(i) Written Evidence of the Coastal First Nations (21 December 2011) at Part VIII (A2K0J7).</p> <p>(ii) Application, Volume 4, Sections 3.5.2 and 3.5.3 (A1S9Z8) and Volume 4 Update, Sections 3 and 5 (A1Y3Z1); Application Volume 5A, Section 3.5.4 (A1T0D3).</p>
	<b>Preamble:</b>	<p>In Reference (i), the Coastal First Nations assert that Northern Gateway's risk assessment evidence is inadequate.</p> <p>As described in Reference (ii), Northern Gateway's consultation program for the Project included the Quantitative Risk Assessment ("QRA") Working Group, comprised of Aboriginal, environmental and community organizations to oversee the completion of the Northern Gateway QRA.</p>
	<b>Request:</b>	<p>(a) Please confirm that members of the Coastal First Nations were invited to participate in the QRA working group for the Project.</p> <p>(b) Please confirm that representatives for the Haisla Nation and the Metlakatla First Nation participated as observers in the QRA working group.</p> <p>(c) Please confirm that representatives of the Haisla Nation participated as observers in the Marine Community Advisory Board ("CAB") meeting that was held in Kitimat in June 2009.</p> <p>(d) Please confirm that other than the above, Coastal First Nation members have declined to participate in the Northern Gateway Marine CABs and the QRA Working Group.</p>

<b>Risk Assessment</b>		
<b>1.3</b>	<b>Reference:</b>	Written Evidence of the Coastal First Nations (21 December 2011) at page 56 (A2K0J7).
	<b>Preamble:</b>	In the Reference, the Coastal First Nations state: "in 2002, the Pacific States-BC Oil Spill Task Force study found that the risk of vessel collisions increases with traffic density such as will be experienced at Kitimat if the Northern Gateway Project and the proposed LNG projects were to go ahead."
	<b>Request:</b>	<p>(a) Please indicate where the Northern Gateway Project and proposed LNG projects are cited in the Pacific States-BC Oil Spill Task Force study.</p> <p>(b) To which proposed LNG Projects is Coastal First Nations referring?</p> <p>(c) Has the Coastal First Nations opposed any LNG Project to date?</p> <p>(d) Please provide all environmental and risk assessment studies, including studies of "Black Swan" events, conducted by the Coastal First Nations or any of its members in respect of the LNG projects referred to.</p> <p>(e) Please provide copies of any probability-based risk assessment studies conducted in respect of the LNG projects referred to by Coastal First Nations.</p>

<b>Position of Coastal First Nations and Advice to Member Nations</b>		
<b>1.4</b>	<b>Reference:</b>	<p>(i) Written Evidence of the Coastal First Nations (21 December 2011) at page 14 (A2K0J7).</p> <p>(ii) Written Evidence of the Coastal First Nations (21 December 2011) at pages 38 - 44 (A2K0J7).</p>
	<b>Preamble:</b>	In Reference (i), the Coastal First Nations cite a report by Chris Joseph and Dr. Thomas Gunton as authority for the proposition that "oil spills are inevitable."
	<b>Request:</b>	<p>(a) Please confirm that the advice given by the Coastal First Nations to its members, and by its members to their own communities, has been that oil spills are inevitable if the Northern Gateway Project proceeds.</p> <p>(b) Please confirm that there are member Nations of the Coastal First Nations such as the Haida Nation who are so opposed to the Northern Gateway Project and the process under which it is being reviewed that they do not wish to discuss the Project with Northern Gateway.</p> <p>(c) Please confirm that it is respectful for Northern Gateway to refrain from seeking meetings and discussions when there is no desire on the part of a particular First Nation to meet.</p> <p>(d) Please list the additional safety measures that Coastal First Nations suggests be undertaken to reduce the probability of a marine oil spill.</p> <p>(e) Assuming that all of the additional safety measures listed are implemented, would the Coastal First Nations be satisfied that marine shipping associated with the Northern Gateway Project can be safely undertaken?</p> <p>(f) Do the Coastal First Nations support the recommendations of the Pacific States-BC Oil Spill Task Force, as quoted in Reference (ii)?</p>

<b>Position Regarding Programs Proposed by Northern Gateway</b>		
<b>1.5</b>	<b>Reference:</b>	<p>(i) Application, Volume 6B, Section 13 (A1T0G5); Application, Volume 8B, Section 13.8.4.1 (A1T0I6 and A1T0I5); Northern Gateway's response to Coastal FN IR 1.35 (A2E4Q5); Northern Gateway's response to JRP IR 8.11 (A2I9I8).</p> <p>(ii) Application, Volume 8B, Section 13.8.4.2 (A1T0I6).</p> <p>(iii) Northern Gateway's response to Federal Government IR 1.79 (A2E8J0); Northern Gateway's response to Federal Government IR 2.66 (A2I9D0); Attachment 1 to Federal Government IR 2.66: Framework for the Marine Environmental Effects Monitoring Program (November 2011) (A2I9G6).</p> <p>(iv) Northern Gateway Response to Coastal FN IR No. 1.23 (A2E4Q5).</p> <p>(v) Application, Volume 8C, Section 9.3.4 (A1T0J1).</p> <p>(vi) Northern Gateway Response to JRP IR 6.1(d) (A2E7Q4).</p> <p>(vii) Application, Volume 7C, Section 8.5.3 (A1T0H2)</p>
	<b>Preamble:</b>	<p>Reference (i) describes the Fisheries Liaison Committee ("FLC") proposed by Northern Gateway.</p> <p>Reference (ii) addresses food, social and ceremonial ("FSC") fishing and states that "Northern Gateway will explore opportunities with coastal Aboriginal communities potentially affected by project-related marine transportation to document existing use (i.e., important species, locations and seasons of harvesting)."</p> <p>Reference (iii) describes Northern Gateway's commitment to develop and implement a Marine Environmental Effects Monitoring Program ("EEMP") for the marine terminal and marine transportation and provides a draft Framework for the Marine EEMP.</p> <p>Reference (iv) states: "Northern Gateway recognizes the importance in augmenting sensitivity maps with site-specific and general traditional and ecological knowledge ("TEK"). Subject to Project approval and prior to the Project operations, information available to Northern Gateway relating to Traditional Land Use ("TLU"), native food fishery, resource harvesting activity and heritage sites would be included in sensitivity maps and be subject to ground-truthing where appropriate."</p> <p>Reference (v) describes mitigation measures to be used in the unlikely event of a hydrocarbon release and states: "For traditional marine uses in particular, Northern Gateway would work to ensure that the protection of culturally and environmentally sensitive sites was given high priority. Pre-identification of such sites through Geographic Response Plans prepared in conjunction with participating Aboriginal</p>

		<p>groups would be important for achieving that objective."</p> <p>Reference (vi) states: "Northern Gateway has discussed with Environment Canada the concept of third party scientific research being led through a new Marine Research Chair that would be established through an academic institution in British Columbia. The focus of the Marine Research Chair would be to establish baseline information and conduct research into the potential cumulative effects of the multiple projects that are being proposed in the Port of Kitimat."</p> <p>Reference (vii) states: "Northern Gateway has offered opportunities for coastal Aboriginal communities and organizations to become directly involved in the RO [Response Organizations] for the Project."</p>
	<b>Request:</b>	<p>(a) Are the Coastal First Nations prepared to participate in the FLC, should the Project be approved?</p> <p>(b) Are the Coastal First Nations prepared to participate in a program designed to collect and record food social and ceremonial ("FSC") fishing and other harvesting data, as proposed by Northern Gateway, should the Project be approved?</p> <p>(c) Are the Coastal First Nations prepared to participate in the design and implementation of a Marine Environmental Effects Monitoring Program ("EEMP"), as proposed by Northern Gateway, should the Project be approved?</p> <p>(d) Are the Coastal First Nations prepared to participate in the ground-truthing of coastal sensitivity atlases, as proposed by Northern Gateway, should the Project be approved?</p> <p>(e) Are the Coastal First Nations prepared to participate in the preparation of Geographic Response Plans, as proposed by Northern Gateway, should the Project be approved?</p> <p>(f) Are the Coastal First Nations prepared to participate in discussions regarding the creation of a Marine Research chair in environmental planning, as proposed by Northern Gateway, should the Project be approved?</p> <p>(g) Are the Coastal First Nations prepared to participate in marine oil spill training exercises to be conducted prior to commencement of operations, as proposed by Northern Gateway, should the Project be approved?</p> <p>(h) Are the Coastal First Nations prepared to engage in good faith discussions regarding procurement and employment opportunities associated with the Project (including marine services), should the Project be approved?</p> <p>(i) Are the Coastal First Nations prepared to participate in the development of a framework for responding to social and cultural disruption, as part of marine emergency response planning?</p>

<b>Economics</b>		
<b>1.6</b>	<b>Reference:</b>	<p>(i) National Energy Board, <i>Canada's Energy Future: Energy Supply and Demand Projections to 2035</i>, November 2011, page 18, online: National Energy Board &lt;<a href="http://www.neb-one.gc.ca/clf-nsi/rnrgynfmtn/nrgyrprt/nrgyftr/2011/nrgsppldmndprjctn2035-eng.pdf">http://www.neb-one.gc.ca/clf-nsi/rnrgynfmtn/nrgyrprt/nrgyftr/2011/nrgsppldmndprjctn2035-eng.pdf</a>&gt;.</p> <p>(ii) Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, page 3 (adobe page 8) (A2K0J8).</p>
	<b>Preamble:</b>	Reference (ii) states that "[w]e also note that the 2011 CAPP forecasts are higher than the 2011 NEB reference case forecast released in November of 2011 (NEB 2011 page 18)."
	<b>Request:</b>	<p>(a) Please confirm that Reference (i) is discussing oil sands production, not total western Canadian crude oil supply. If not confirmed, please provide Dr. Gunton and Mr. Broadbent's understanding of the subject matter of Reference (i).</p> <p>(b) Please provide a numeric table of the relevant portions of the CAPP and NEB forecasts found in Reference (i), in a year-by-year format.</p> <p>(c) Please confirm that Reference (i) also discusses the 2011 ERCB forecast, and provides a comparison in Figure 4.2 to the CAPP and NEB forecasts.</p> <p>(d) Please confirm that Reference (i), at page 18 states "[i]n 2020, the ERCB projection is about six per cent higher than the NEB Reference Case, while CAPP is about two per cent higher."</p> <p>(e) Please provide a numeric table consistent with Figure 4.2 of the ERCB and NEB forecasts in a year-by-year format.</p>

<b>Economics</b>		
<b>1.7</b>	<b>Reference:</b>	Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, page 7 (adobe page 12), third paragraph (A2K0J8).
	<b>Preamble:</b>	The Reference, referring to the Ensys 2011 study, states that "[t]he conclusion of the updated report is that no new pipeline capacity other than expanded capacity on Enbridge's Clipper Line and Kinder Morgan's TMX line is required to meet WCSB export requirements to 2025. If Keystone XL is built, there would again be excess capacity to 2030, without the Northern Gateway Project." The precise Ensys conclusions being referred to are unclear.
	<b>Request:</b>	<p>(a) Please provide the page number(s) and paragraph(s) in the Ensys 2011 study where the Ensys conclusions cited above are explicitly stated.</p> <p>(b) If Ensys has not explicitly provided the conclusions cited in the preamble, please provide a detailed explanation of how the cited Ensys conclusions can be derived from the Ensys 2011 study. Please provide all related work papers that support such derivation.</p> <p>(c) Please provide the current and expanded capacities of the "Enbridge Clipper Line" and the "Kinder Morgan TMX line" referred to in the preamble.</p> <p>(d) Have either of the indicated expansions of the "Enbridge Clipper Line" or the "Kinder Morgan TMX line" been approved by the NEB?</p> <p>(e) Please identify all previous NEB decisions concerning the construction of new or expansion pipeline projects that have had regard for unapproved (by the NEB) potential expansions of other competing pipelines. Please provide specific citations to the relevant sections of the previous NEB decisions.</p>



<b>Economics</b>		
<b>1.8</b>	<b>Reference:</b>	Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, page 9 (adobe page 14), first full paragraph (A2K0J8).
	<b>Preamble:</b>	The Reference states that "[a]ny decision on the Northern Gateway Project needs to await the outcome of these recent developments to assess the need for new pipeline capacity." Further elaboration of this concept is required.
	<b>Request:</b>	<ul style="list-style-type: none"> <li>(a) Please identify each "recent development" upon which the JRP should await.</li> <li>(b) Please provide a detailed explanation regarding each "recent development" as to why it is relevant to the JRP's decision.</li> <li>(c) Please quantify how long the JRP should await the resolution of each "recent development" before the JRP can proceed with a decision.</li> <li>(d) Please confirm that the Reference identifies "potential regulatory restrictions on import of oil sands oil" as one of the challenges depressing WCSB oil export prices, and further states that recent developments "suggest that these challenges [which also include the delay of Keystone XL and bottlenecks on US distribution] may be in the process of being resolved."</li> <li>(e) Please provide a detailed description, including support sources, of all recent developments with regard to "potential regulatory restrictions on the import of oil sands oil" that suggest that this challenge may be in the process of being resolved.</li> </ul>

<b>Economics</b>		
<b>1.9</b>	<b>Reference:</b>	Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, page 9 (adobe page 14), first paragraph (A2K0J8).
	<b>Preamble:</b>	<p>The Reference states that:</p> <p><i>Muse Stancil therefore concludes that there will be sufficient pipeline capacity to transport WCSB exports in[to] the US with just the additions of the Keystone (including Keystone XL) and Enbridge Clipper expansions and therefore demonstrates that the [Northern Gateway Project] is not needed to meet forecast WCSB export demand during the forecast period to 2025.</i></p> <p>Additional information is needed regarding the basis for this statement.</p>
	<b>Request:</b>	<p>(a) Please provide the precise citation(s) to the location in the Muse report where Muse "...concludes that there will be sufficient pipeline capacity ...".</p> <p>(b) Please provide the precise citation(s) to the location in the Muse Report where Muse demonstrates that "...the [Northern Gateway Project] is not needed to meet forecast WCSB export demand during the forecast period to 2025."</p> <p>(c) Please confirm that it is Dr. Gunton and Mr. Broadbent's (the authors) understanding that the Muse Report used the CAPP 2009 "Growth Case" supply forecast for its Canadian crude oil supply basis. If not confirmed, please provide the authors' understanding of the crude oil supply basis in the Muse report.</p>

<b>Economics</b>		
<b>1.10</b>	<b>Reference:</b>	Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, page 7 (adobe page 12), first full paragraph (A2K0J8).
	<b>Preamble:</b>	The Reference states that "[b]ased on Ensys (2010, 2011) forecast assessment, there is sufficient capacity beyond 2025." Further information regarding the Ensys analysis is required.
	<b>Request:</b>	<p>(a) Please provide the page number(s) and paragraph(s) in the 2010 and Ensys 2011 studies where the Ensys conclusion cited above is explicitly stated.</p> <p>(b) If Ensys has not explicitly provided the conclusion cited in the preamble, please provide a detailed explanation of how the cited Ensys conclusion can be derived from the 2010 and/or the Ensys 2011 study. Please provide all related work papers that support such derivation.</p>

<b>Economics</b>		
<b>1.11</b>	<b>Reference:</b>	<p>(i) Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, December 2011, last paragraph of page 10 (adobe page 15) continuing on to page 11 (adobe page 16) (A2K0J8).</p> <p>(ii) Appendix I – <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, last paragraph of page 11 (adobe page 16) continuing on to page 12 (adobe page 17) (A2K0J8).</p>
	<b>Preamble:</b>	<p>Reference (i) proposes to defer the JRP decision, and supports the deferral, in part, with the statement that:</p> <p><i>Even in the unlikely case that there are short-term transportation constraints, the costs are at worst modest compared to surplus capacity because capacity constraints simply defer the sale of oil to a future date when the oil prices are forecast to be higher due to the tightening supply and demand balance.</i></p> <p>Reference (ii) also in the context of offering reasons why the JRP should defer a decision, states:</p> <p><i>Even in the unlikely case that there are short-term transportation constraints, the costs of shutting in production need to be compared to the costs [sic] irreversible opportunity costs of unused surplus pipeline capacity in a rational risk assessment.</i></p> <p>Further detail regarding these statements is required.</p>
	<b>Request:</b>	<p>(a) What is the specific date to which the JRP should defer its decision? If a specific date cannot be provided, please provide a detailed explanation of the reasons as to why the date cannot be provided, and provide a detailed explanation as to how the JRP will know when the appropriate date has been reached.</p> <p>(b) Regarding Reference (i), if the delay of a decision on the Northern Gateway Project results in "short-term transportation constraints" and the deferral of oil sales into the future, at approximately what date in the future will the oil sales be made?</p> <p>(c) Please provide the appropriate real (versus nominal) discount rate to be used to ascertain the present value of future oil sales that may result from short-term transportation constraints.</p> <p>(d) Regarding Reference (i), please provide all work papers that support the statement that the costs of future oil sales are modest compared to the costs of surplus pipeline capacity.</p>

		<p>(e) Regarding Reference (ii), please confirm that the authors are referring to the cost of shutting in Canadian crude oil production. If not confirmed, please detail the production being referred to.</p> <p>(f) Regarding Reference (ii), please provide all work papers that compare the costs of shutting in Canadian crude oil production to the costs of surplus pipeline capacity.</p>
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<b>Economics</b>		
<b>1.12</b>	<b>Reference:</b>	Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, first and second full paragraphs of page 12 (adobe page 17) (A2K0J8).
	<b>Preamble:</b>	The Reference states that the Application should be considered "if and when there is sufficient demand" and that "the [Northern Gateway Project] application needs to be assessed relative to the many other transportation options to ensure the most cost effective outcome." The Reference also states that the NEB should do "...additional analysis of the supply/demand of the WCSB oil pipeline system to identify the need for and the combination of the most cost-effective transportation options..." Additional information is required regarding these statements.
	<b>Request:</b>	<p>(a) Please confirm that the authors are asserting that the JRP (or the NEB) should wait until there is sufficient current demand for additional export pipeline capacity before approving an export pipeline project. If not confirmed, please provide a detailed explanation as to how the JRP is to determine "sufficient demand" for the purposes of assessing a pipeline project that necessarily will be commissioned at some point in the future following a JRP decision to approve the Northern Gateway Project.</p> <p>(b) Please provide a detailed list of the "many other transportation options" that need to be assessed.</p> <p>(c) Please provide a detailed explanation of the methodology to be used by the JRP and/or the NEB to assess the "most cost effective outcome" and the "most cost-effective transportation options."</p> <p>(d) Please confirm that it is the authors' position that the JRP should consider pipeline transportation options involving new or expanded pipelines for which neither the JRP nor the NEB has a pending facilities application.</p>

<b>Economics</b>		
<b>1.13</b>	<b>Reference:</b>	Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, December 2011, first full paragraph of page 17 (adobe page 22) (prior version (A2K0J8) filed on the Board's website and replaced in January 2012).
	<b>Preamble:</b>	The Reference states that "[f]or 2020, approximately three-quarters of the estimated benefit results from the higher prices into the US market due to reduced Canadian exports to the US and about one quarter is due to higher prices in Asia." Further information is required about this statement.
	<b>Request:</b>	Please provide a detailed explanation of the derivation for the benefit split described in the preamble. Please provide all supporting work papers.

<b>Economics</b>		
<b>1.14</b>	<b>Reference:</b>	Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, last paragraph of page 18 (adobe page 23) (A2K0J8).
	<b>Preamble:</b>	The Reference states that "...there is even greater uncertainty forecasting price differentials between geographic locations" [versus absolute crude oil prices]. Further information regarding the analytical basis for this statement is required.
	<b>Request:</b>	Please provide all studies and analyses that support the statement cited in the preamble. Please provide all related work papers.



<b>Economics</b>		
<b>1.15</b>	<b>Reference:</b>	<p>(i) Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, last paragraph of page 7 (adobe page 12) continuing to page 8 (adobe page 13) (A2K0J8).</p> <p>(ii) Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, second paragraph of page 19 (adobe page 24) (A2K0J8).</p> <p>(iii) Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, first paragraph of page 20 (adobe page 25) (A2K0J8).</p> <p>(iv) Application, Volume 2, Appendix A: <i>Market Prospects and Benefit Analysis for the Northern Gateway Project</i> (the "Muse Report") (A1S9X7).</p>
	<b>Preamble:</b>	<p>Reference (i), at the last paragraph of page 7 continuing to page 8, states that:</p> <p><i>Our assessment of pipeline supply and demand forecasts for the WCSB and the Ensys assessment show that there is sufficient capacity to meet transportation requirements beyond 2020 with an expansion of the Enbridge Clipper and construction of Keystone XL.</i></p> <p>Reference (ii), at the second paragraph of page 19, states that:</p> <p><i>Currently, prices at Cushing have been much lower than prices at the Gulf and the planned expansion for pipeline capacity to ship Canadian oil to the Gulf will result in an increase in prices for Canadian oil, not a reduction (McCarthy and Vanderkippe). Therefore the current actual geographical price differentials contradict the Muse Stancil model results.</i></p> <p>Reference (iii), at the first paragraph of page 20, states that:</p> <p><i>The key to increasing WCSB prices in the US market is increasing access to the Gulf by eliminating bottlenecks at Cushing.</i></p>
	<b>Request:</b>	<p>(a) Please confirm that the Muse forecast of the Canadian crude oil price impact of the Northern Gateway Project begins in 2016 (Table A-17, page 58 of Reference (iv)). If not confirmed, please provide Dr. Gunton and Mr. Broadbent's (the authors) understanding of the beginning of the Muse forecast period.</p> <p>(b) Please confirm that the Muse analysis assumed that the Keystone XL pipeline would be built, on schedule (Reference (i), page 9 and Reference (iv), page 8). If not confirmed, please provide the authors' understanding of the Keystone XL assumption used for modeling purposes in the Muse analysis.</p>

		<p>(c) Please confirm that the Keystone XL pipeline is a component of the "planned expansion for pipeline capacity to ship Canadian oil to the Gulf," per Reference (ii). If not confirmed, please detail all pipeline expansions or projects, complete with the associated capacities that are included in the "planned capacities" discussed in Reference (ii).</p> <p>(d) With regard to the source cited in Reference (ii), please confirm that the authors regard Messrs. McCarthy and Vanderklippe as being expert regarding the Canadian crude oil markets. If not confirmed, please detail, complete with precise citations and explanations, every instance where Messrs. McCarthy and Vanderklippe offer information or opinions that are incorrect or uninformed.</p> <p>(e) With regard to the statement at Reference (iii), please confirm that the Keystone XL pipeline, once operational, will increase WCSB crude oil prices. If not confirmed, please offer a detailed explanation as to why a large pipeline that increases access to the Gulf will not increase WCSB crude oil prices.</p> <p>(f) Please provide a detailed explanation as to how the "current actual geographical price differentials" contradict the Muse Stancil model results which considers the period 2016 to 2025, with the Keystone XL pipeline operational. Please provide all supporting work papers.</p>
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<b>Economics</b>		
<b>1.16</b>	<b>Reference:</b>	Appendix I – <i>A Public Interest Assessment of the Northern Gateway Project</i> , by Dr. Thomas Gunton and Sean Broadbent, January 2012, last paragraph of page 18 (adobe page 23) (A2K0J8).
	<b>Preamble:</b>	The Reference states that the price of bitumen is difficult to assess, and offers ARRP 2007 as a source. Further information regarding this statement is required.
	<b>Request:</b>	<p>(a) Please provide the precise citation(s) to the location in ARRP 2007 where the indicated statement is found.</p> <p>(b) Please confirm that the ARRP 2007 is discussing the price of diluted bitumen (suitable for pipeline transportation). If not confirmed, please detail the nature of the material being discussed in the ARRP 2007.</p>

<b>Economics</b>		
<b>1.17</b>	<b>Reference:</b>	Appendix I – <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, first paragraph of page 8 (adobe page 13) (A2K0J8).
	<b>Preamble:</b>	<p>The Reference quotes the CAPP 2011 report at some length with the following excerpt:</p> <p><i>Although overall US crude oil demand is not expected to increase significantly, western Canadian crude oil should supply a growing share of this market if the necessary pipeline infrastructure is put in place to enable greater access to major US markets. Declines in imports from other major suppliers to the US is expected in the near term due to a combination of falling production, increased domestic consumption, or a focus on expansion into new export markets such as Asia.</i></p> <p>Further information regarding the significance of this statement is needed.</p>
	<b>Request:</b>	<p>(a) Please confirm that the CAPP excerpt is offered in support of an argument by Dr. Gunton and Mr. Broadbent (the authors) that the US market can absorb increased WCSB exports. If not confirmed, please detail the purpose of the excerpt.</p> <p>(b) Please confirm that the authors regard CAPP as being knowledgeable about the Canadian crude oil markets. If not confirmed, please detail, complete with precise citations and explanations, every instance where the CAPP 2011 report offers information or opinions that are incorrect or uninformed.</p> <p>(c) Please confirm that the CAPP 2011 report, cited in the preamble, states at page 18 that:</p> <p><i>Recent decreased pipeline capacity connected to key markets proved that pipeline constraints have a severe impact on the netbacks realized by Canadian producers. Some excess pipeline capacity is essential for industry to manage in times of pipeline maintenance or to ensure flexibility to accommodate new markets developments.</i></p>

<b>Economics</b>		
<b>1.18</b>	<b>Reference:</b>	<i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, Table 3 on page 6 and Table 4 on page 7.
	<b>Preamble:</b>	The two referenced tables provide a forecast oil pipeline supply and demand balance.  Further information regarding the pipeline supply and demand balance is required.
	<b>Request:</b>	(a) Please provide all supporting work papers for Tables 3 and 4.  (b) Please provide a detailed reconciliation of the differences between the current pipeline capacity shown in Table 3 (3,690 kb/d), and the current pipeline capacity shown in Table 4 (3,881 kb/d).

<b>Economics</b>		
<b>1.19</b>	<b>Reference:</b>	Appendix I – <i>A Public Interest Assessment of the Enbridge Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, Section 4 pages 25-27 (adobe pages 30-32) (A2K0J8).
	<b>Preamble:</b>	<p>Table 7 page 27 (adobe page 32) presents a Summary of Selected Environmental Costs Associated with the Northern Gateway Project. "Oil Spill Use Values Damages" are shown to be the NPV range \$4,075.7 – \$5,457.5 million.</p> <p>The supporting text on page 25 explains "For marine spills we have estimated the costs of a major spill equivalent to the Exxon Valdez in the PNCIMA at between \$5.2 and \$22.7 billion (2010 CAD), which include non-use cost estimates based on the Carson <i>et al.</i> (2003) study (Gunton and Broadbent 2011). If we deduct the non-use costs based on the Carson <i>et al.</i> study ... the direct costs of a spill range between \$4.1 billion and \$5.5 billion. The estimated cost would have to be adjusted for probability of occurrence to estimate an <u>expected value</u> for inclusion in the BCA [Benefit Cost Analysis]."</p> <p>The authors link the 2010 total cost to Enbridge of pipeline spills to the discussion of the cost oil spills, but it is not clear what assumptions were made to arrive at the estimated oil spill costs in Table 7.</p>
	<b>Request:</b>	<p>(a) Please provide more detail behind the NPV calculation of the direct costs of a spill: i.e., the \$4.1-\$5.5 billion in "Oil Spill Use Values Damages" presented in Table 7. Please include annual amounts and show their derivation.</p> <p>(b) Please confirm that the values in Table 7 are not the <u>expected values</u> for inclusion in the BCA, as they do not include probability of occurrence.</p>

<b>Economics</b>		
<b>1.20</b>	<b>Reference:</b>	A Review of Potential Impacts to Coastal First Nations from an Oil Tanker Spill associated with the Northern Gateway Project, January 2012, Section 4.5, page 36 (adobe page 50) (A2K0K0).
	<b>Preamble:</b>	<p>Table 20 in the Reference provides "Annual Ecological Services and Economic Values in Coastal First Nations Traditional Territories. Per hectare values for ecosystem goods and services from marine ecosystems (coastal and open ocean) are sourced from Costanza <i>et al.</i> (1997).</p> <p>The various values are applied to 88,000 km<sup>2</sup> of the Pacific North Coast Integrated Management Area (PNCIMA): 45,000 km<sup>2</sup> are considered "coastal" and 43,000 km<sup>2</sup> are considered "open ocean". The authors thus arrive at a value of \$29.8 billion, which is subsequently adjusted downward (to avoid double counting) to arrive at a final value of \$28.5 billion per year.</p>
	<b>Request:</b>	Please explain the rationale of using the entire 88,000 km <sup>2</sup> of the PNCIMA as an impact area for the Northern Gateway Project.

<b>Public Interest Assessment</b>		
<b>1.21</b>	<b>Reference:</b>	Appendix I - <i>A Public Interest Assessment of the Enbridge Northern Gateway Project</i> by Dr. Thomas Gunton and Sean Broadbent, January 2012, Table 5 on page 23 (adobe page 28) and relevant surrounding text (A2K0J8).
	<b>Preamble:</b>	The Reference shows the results of a Benefit Cost Analysis ("BCA") of the Project under various assumptions, which are described in general in the text, but not explicitly specified in terms of the annual cash flows, which underlie the calculations for the BCA results.
	<b>Request:</b>	Please provide a set of supporting tables of annual cash flows for each of the various alternatives in Table 5, showing each element of the BCA separately, e.g. showing the investment costs, the operating costs, the price uplifts, the oil or condensate volumes, the offsets for when the pipes are not needed, etc., and any other critical factors, showing the exact specifications for the annual calculations, so that a reader may understand and assess not only the final NPV results but also the importance of each major component leading to the final result.



<b>Tankers</b>		
<b>1.22</b>	<b>Reference:</b>	Northern Gateway Response to Coastal First Nations Information Request No. 1.3 (A2E4Q5).
	<b>Preamble:</b>	<p>In the preamble to Coastal First Nations Information Request No. 1.3 to Northern Gateway, Coastal First Nations stated that "tankers older than ten years tend to have significantly higher Non-Accidental Structural Failure (NASF) frequency rates than younger tankers (about 78% of all NASF accidents involve ships older than ten years)." In support of that statement, Coastal First Nations cited the following report:</p> <p><i>Papanikolaou, A., Eliopoulou, E., Hamann, R., Loer, K., Assessment of Safety of Crude Oil Transport by Tankers, Proc. Annual Main Conference of Schiffbautechnische Gesellschaft (STG2009), Berlin, November, 2009, page 6.</i></p>
	<b>Request:</b>	Please provide a copy of the report by <i>Papanikolaou et al.</i>

<b>Graham Report</b>		
<b>1.23</b>	<b>Reference:</b>	Marine Oil Spill Aspects of the Northern Gateway Project, A Review of Enbridge's NEB/CEAA Application Prepared for Living Oceans Society and Coastal First Nations Great Bear Initiative by Gerald Graham, B. A., M. A., Ph. D., President, Worldocean Consulting Ltd., Final Report Submitted 9/9/2010, page 25 (adobe page 32) (A2K0K1).
	<b>Preamble:</b>	At page 25, Dr. Gerald Graham's report discusses the need to assess the probability of a spill of bunker oil, which comprise approximately 40% of the 450 spills attended by the International Tanker Owners' Pollution Federation Limited in the 25 year period preceding 2002.
	<b>Request:</b>	<p>(a) Please confirm that large commercial vessels such as container ships, bulk carriers, cruise ships and LNG tankers often carry significant amounts of bunker oil.</p> <p>(b) Please advise as to whether the Coastal First Nations or any of its members have commissioned or requested quantitative risk assessments of projects generating vessel traffic utilizing bunker oil, including container terminal expansion projects at Prince Rupert, cruise ship facilities, and LNG projects at Kitimat or Prince Rupert, or elsewhere within PNCIMA.</p>

<b>Graham Report</b>		
<b>1.24</b>	<b>Reference:</b>	Marine Oil Spill Aspects of the Northern Gateway Project, A Review of Enbridge's NEB/CEAA Application Prepared for Living Oceans Society and Coastal First Nations Great Bear Initiative by Gerald Graham, B. A., M. A., Ph. D., President, Worldocean Consulting Ltd., Final Report Submitted 9/9/2010, pages 38 to 41 (adobe page 45-47) (A2K0K1).
	<b>Preamble:</b>	In the Reference, a series of questions to Northern Gateway were suggested by Dr. Gerald Graham.
	<b>Request:</b>	Please confirm that Dr. Gerald Graham's report was utilized by the Coastal First Nations to prepare information requests to Northern Gateway.

<b>Marine Navigation</b>		
<b>1.25</b>	<b>Reference:</b>	Coastal First Nations - Great Bear Initiative - Appendix II - Marine Navigation: Measures to Reduce the Risk of Marine (sic) Incidents, page 3, paragraph 17 (A2K0J9).
	<b>Preamble:</b>	The Reference lists the number of "marine vessel incidents" that have occurred between 2006 and 2009 with pilots on board.  Northern Gateway seeks further information in this regard.
	<b>Request:</b>	Please provide a detailed description of each marine vessel incident in each year referenced in paragraph 17.

<b>Marine Navigation</b>		
<b>1.26</b>	<b>Reference:</b>	Coastal First Nations - Great Bear Initiative - Appendix II - Marine Navigation: Measures to Reduce the Risk of Martine (sic) Incidents, page 4, paragraph 28 (A2K0J9).
	<b>Preamble:</b>	The evidence Reference asserts that "... [rules of work] do not apply to tug captains."  Northern Gateway seeks to understand this assertion and the basis therefor.
	<b>Request:</b>	Please provide a detailed explanation of why Captain Layton and Mr. McGuire are of the belief that rules of work would not apply to the captains of the escort tugs.

<b>Marine Navigation</b>		
<b>1.27</b>	<b>Reference:</b>	Coastal First Nations - Great Bear Initiative - Appendix II - Marine Navigation: Measures to Reduce the Risk of Martine (sic) Incidents, page 1 (A2K0J9).
	<b>Preamble:</b>	In the Reference, the authors outline their background and experience. The Applicant seeks further information in that regard.
	<b>Request:</b>	(a) Captain Layton is said to have "... direct experience with the proposed tanker routes being proposed by Northern Gateway." If so, please provide complete details of such direct experience.  (b) Does Mr. McGuire have direct pilotage experience with the "... proposed tanker routes being proposed by Northern Gateway"? If so, please provide complete details of such direct experience.