January 31, 2012

Via Courier
Via E-mail

Ms. Louise Niro
Regulatory Office
National Energy Board
444 Seventh Avenue SW
Calgary, Alberta T2P 0X8

Dear Ms. Niro:

Re: Hearing Order OH-4-2011 for the Northern Gateway Project

Please find attached the evidence of the Communications, Energy and Paperworkers Union of Canada which is submitted in accordance with the letter of the Joint Review Panel of February 26, 2012.

Sincerely,
<original signed by>

Steven Shrybman
SS:1br/cope 343
Attachment
EVIDENCE OF THE COMMUNICATIONS ENERGY AND PAPERWORKERS UNION OF CANADA (CEP)

1. This evidence is presented on behalf of CEP by David Coles, the President of the Communications, Energy and Paperworkers Union of Canada (CEP), and Fred Wilson, assistant to the President.

2. CEP is Canada's largest union of energy industry workers, with some 35,000 members employed in oil and gas extraction, transportation, refining, and conversion in the petrochemical and plastics sectors. Its members work throughout Canada, from the Hibernia platform off the shore of Newfoundland to the refineries on the West Coast. In between, thousands of CEP members are employed in petrochemicals in Sarnia, Ontario and in the tar sands in Fort McMurray, Alberta.

3. CEP is committed to ensuring that Canadian oil and gas resources are developed and utilized in a manner that fosters economic development in Canada, and does so in a way that is consistent with meeting the challenges of climate change while providing secure energy supplies for Canadians in the future.

The Critical Importance of Value Added Production

4. As is well known, the development of oil sands resources is undergoing unprecedented and rapid expansion. According to the Enbridge forecast, oil sands production in Alberta is to triple by 2035 over 2010 levels. This development has in turn prompted a
number of refinery and pipeline projects that will be needed to process and distribute
this increased flow of oil from western Canada to some domestic, but primarily
international markets.

5. In general terms, these developments represent a major restructuring of both Canadian
and US oil and gas infrastructure, with the very large majority of Canadian oil sands
resources being destined for export markets. The pace and scale of these projected
developments is incompatible with even the most conservative notions of sustainable
development and cause profound damage to the environment and economy of Canada.

6. CEP has a further and particular concern that arises from industry plans to substantially
increase the relative volumes of bitumen exports, which means that the considerable
economic and employment benefits of adding value to Canadian resources will not
accrue to Canada or Canadians.

7. CEP has raised these concerns in several recent pipeline proceedings including those
concerning the Keystone, Southern Lights, Alberta Clipper and Keystone XL pipeline
projects. Northern Gateway, is yet another project that is primarily intended to facilitate
the export of bitumen for upgrading and refining in other countries. The result leaves
putative Canadian economic benefits tied to ever increasing oil sands extraction, while
ignoring the environmental and societal impacts of this development model.

8. While it may be argued that the Gateway export pipeline can be used to export
synthetic crude oil, the evidence indicates that it will predominantly and perhaps
exclusively be used to export bitumen to foreign markets. Facilitating bitumen exports
is undeniably the purpose of the condensate pipeline that comprises an element of the
project. Moreover, assuming a 30% dilution rate, 193,000 barrels of condensate per day, is
more than sufficient to fill the 525,000 barrels per day capacity of the Northern Gateway export
pipeline with dilbit (blended bitumen).
9. I have reviewed the submissions of the Alberta Federation of Labour, and concur with its submissions with respect to the likely impact of the Northern Gateway Project on investment in value-added processing by the Canadian oil and gas industry. We also concur with the evidence presented by economist Robyn Allan concerning the economic impacts of Northern Gateway on petroleum pricing and the manufacturing economy.

10. Michael McCracken, who is the principal of one of Canada’s leading economic consulting companies, Informetrica Inc., was retained by CEP to also assess the potential impact of the Northern Gateway Project. His report, which is attached as Exhibit “A” to my evidence, quantifies the foregone economic and employment benefits that may be the consequence of the bitumen exported by the Northern Gateway Pipeline. These would include the ‘loss’ of 26,000 jobs that would otherwise be created in the Canadian economy if bitumen extracted in Alberta was upgraded in Canada. Much greater employment gains would follow from further downstream processing.

11. The point of the Informetrica analysis is to stress the importance of the Board having a robust and complete understanding of the likely use of the Northern Gateway Pipeline, so that it could assess related economic consequences. According to Informetrica, such an assessment is essential to the public interest test the Board must administer.

12. CEP supports the responsible development of the oil sands, and understands the importance of foreign markets, as it does role of export pipelines to serve them. CEP also understands the importance of a healthy oil and gas industry which can provide stable, good jobs for its members, and create wealth for their communities and all Canadians. The extent to which bitumen is upgraded in Canada will determine whether Canada develops a diversified and sustainable oil and gas economy. It is also likely to have a direct impact on CEP and its members by determining the extent of employment in the industry, particularly over the longer term.
13. Moreover, the approach adopted by this Board in previous hearings of exonerating proponents of the obligation to identify potential adverse jobs impacts of bitumen exports, has allowed proponents to ignore these domestic consequences while touting the benefits of job creation in the importing country. This is precisely the approach adopted by the proponent of the Keystone XL pipeline project. It is CEP’s position that permitting such a double standard of advocacy by pipeline proponents is not compatible with the Board’s mandate to guard Canada’s public interest. For these reasons as well is incumbent on the Board to squarely place the onus for carrying out a far more meaningful assessment of the economic consequences of proposed pipelines than has previously been the case.

14. The evidence of David Hughes (attachment B) examines the effect of the Northern Gateway on production in the oil sands, by installing such export over-capacity as to make it increasingly difficult for Canadian producers to access secure supplies of bitumen and/or synthetic oil, for upgrading and refining in Canada. His evidence shows that current Canadian export capacity will exceed Western Canadian projected production until 2025. After 2025 Northern Gateway will still represent significant surplus export capacity if the Keystone XL and Kinder Morgan (TMX) become operational.

15. In other words, the Northern Gateway Project will exacerbate problems that have already created an unfavourable market for Canadian upgrading and refining in Alberta and Eastern Canada.

The Vulnerability of Eastern Energy Markets

16. The Northern Gateway Project must be assessed in the broader context of Canadian needs, including the energy security and refining needs of Eastern Canada. With uncertain and declining access to Western Canadian crude, Eastern Canada has already suffered a loss of refining capacity, a loss of jobs and gasoline supply problems. Of
particular concern are the consequences of two closures of major refineries in Ontario and Quebec which have created an alarming dependency on foreign suppliers for refined petroleum products: gasoline, diesel fuel and heating oil.

17. At the start of 2005 the Oakville refinery in the Toronto area was shut by PetroCanada. The production of refined petroleum products in Ontario subsequently dropped by nearly 20%, from 32-34 million cubic metres to 26 to 28 million cubic metres per day, forcing Ontario into a position of dependency on other regions. (Statistics Canada, The Supply and Disposition of Refined Petroleum Products in Canada, Catalogue number 45-004-X, table 5-1, various years).

18. Before the closure, Ontario’s production of refined petroleum products was in balance within the province, i.e. consumption was equal to production. After the shutdown the balance was lost and the Ontario region had to rely on surplus production in Quebec and foreign countries to make up its shortfall. Three hundred highly skilled, well-paid unionized workers lost their jobs when the refinery closed, as did thousands of others workers with related or dependent employment.

19. While Ontario was able to rely for a while on excess Quebec refining capacity, its position was precarious. Indeed, in 2007 when a fire occurred at the Imperial Oil Nanticoke refinery near Hamilton, the resulting tight supply was the main factor causing a gasoline shortage for several weeks in southern Ontario. As a result, Imperial closed 100 gas stations, PetroCanda closed 30 and imposed rationing at another 80, and Shell closed several others. Gasoline prices also rose 10 to 15 cents per litre until the shortages were resolved. (Toronto Star, February 27, 2007.

20. Since October 2010 the situation has grown worse, because on October 1st, 2010 Shell Canada closed its refinery in Montreal, forcing the Quebec-Ontario region into a situation of dependency on foreign suppliers, and many workers out of work or into
Prior to the closure Quebec produced about five million cubic metres of refined petroleum products above its domestic consumption. With the closure Quebec is now barely self-sufficient. According to Statistics Canada for the first 9 months of 2011 Quebec produced 15,356,000 cubic metres of refined petroleum products and consumed virtually the same amount, 15,310,000 cubic metres. Thus supply from Quebec was no longer available to address the deficit position Ontario found itself in with the closure of the Oakville refinery on January 1, 2005. Clearly this is a serious problem for Ontario as illustrated by the two shortage events, one in 2007 and another in 2011. But it is also a problem for Quebec in the event of a problem at one of the two remaining Quebec refineries, including routine problems such as a somewhat prolonged maintenance closure.

21. The closure of the Shell refinery in Montreal now leaves the Ontario/Quebec region at the mercy of supply disruptions from Europe. Most of the shortfall of 5 million cubic metres of refined products in our two largest provinces is made up by a flotilla of tankers from Europe delivering gasoline, diesel fuel and heating oil.

22. Ontario remains particularly vulnerable to supply disruptions. Last August it once again experienced gasoline shortages when repairs at the Shell refinery in Sarnia took longer than expected. To quote from the Toronto Star: "Jeff Gabert, a Shell spokesperson, said the gas company has been experiencing a fuel shortage for the past week, leaving some stations without gas in the GTA, Sarnia and London. Their refinery in Sarnia was shut down for maintenance that lasted a week longer than expected — something that happens frequently at refineries — causing an internal shortage of fuel." Gas shortages in the Greater Toronto Area and across the country will become the new norm, according to experts and Natural Resources Canada. Refineries across the

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1. A study by the Institut de la statistique du Québec (ISQ), a department of the government of Quebec, CEP estimates that at the very least 2000 jobs were lost in all.
country are pushing out gasoline at or near capacity, and without “new refining capacity, supply interruptions could become more frequent and increasingly difficult to manage,” according to the Natural Resources Canada’s website.” *(Toronto Star, August 11, 2011. http://www.thestar.com/news/article/1036919--customers-fume-as-gas-stations-run-dry)*

23. Furthermore, current imports of refined products depend on market conditions in Europe where there is, for the time being, a surplus capacity in conventional gasoline refining which is forcing producers to seek increased exports to North America. EU climate policies have resulted in increased consumption of diesel and bio-fuels, with declining demand for convention gasoline. According to the European Petroleum Institute White Paper on Refining (May, 2010) there are current market conditions favouring increased exports of refined products, but these conditions cannot be expected to continue:

> “While EU refiners currently export gasoline mainly to the US, the export markets in the future may be very different. In 2020, it is expected that the US market will no longer be able to absorb the EU gasoline excess. In addition, over the period 2010-2020, the combined EU demand for diesel and heating oil is forecast to remain flat while gasoline should fall by 2% to 3% per year. This means that European refiners would need to seek other export markets to replace the US market and to absorb the increased surplus of gasoline... Without new export markets it is likely that the EU refining industry will adjust this surplus through reducing gasoline production... through restructuring... disinvestments of gasoline units or by shutting down entire refineries.” EUROP branding White Paper on Refining, May, 2010, Page 36

24. In other words, long term reliance on surplus supply from the EU is not a viable strategy for Canada, even if it was to continue the present and ill-conceived policy of
outsourcing its energy security. This is the context in which any export pipeline proposal must be assessed.

25. In fact, the Gateway Project will exacerbate eastern Canada’s supply predicament, because it will operate in competition with another Enbridge project pending before the Board which will also be seeking supply in an increasing “seller’s market” of surplus pipeline capacity. That project, foresees the reversal of Enbridge’s “Line 9” [OH-005-2011] to facilitate flows from west to east. According to statements by Enbridge, the Gateway and Line 9 projects will be in competition for supply and both are not likely to proceed simultaneously: "If we move to reverse Line 9, that could come before Gateway," Enbridge CEO Pat Daniel said. "If it is large volume, 400,000 barrels a day, Gateway would come first." (Enbridge mulls re-reversal of Canada oil pipeline Scott Haggett, Reuters, March 11, 2008).

26. According to CAPP, [Crude Oil Forecasts, Markets and Pipelines, June, 2011] Suncor’s Montreal refinery can immediately process up to 60,000 bpd of Western crude, which could be provided at a price advantage over crude imports. However, supply and demand market conditions for SCO and conventional light crude will be directly affected by Northern Gateway. Moreover, in order to incent investment in cokers to process Western Canadian heavy crude, a long term, stable supply would have to be assured.

27. It is crucial therefore, that major export project such as the Gateway Pipeline Project must be carefully assessed to ensure that it does not pose a risk to Canadian economic development by undermine Canadian energy security and investment in domestic upgrading, refining and downstream processing industries – in both eastern and western Canada.

28. These considerations underscore the importance of the current call by companies, CAPP and the provinces of Alberta and Ontario for a “Canadian energy strategy.” [cite]
CEP agrees entirely with the need for Canada to pause further development of the oil sands and export pipeline approvals, to develop a national consensus around a sustainable energy strategy.

29. The proponent’s own evidence of economic impacts, as well as estimates provided by Mr. Hughes which project that the impact of approving Northern Gateway would spur up to a tripling of existing oil sands production, it is evident that approving this project would preclude the possibility of any meaningful national dialogue on a new Canadian energy strategy.

30. The need for prudent caution is particularly compelling because future Canadian policy and regulatory options are severely constrained by NAFTA rules concerning energy and investment. Pursuant to these rules, particularly Article 605(c), once Canada adopts a particular approach to approving bitumen exports, it is obliged to accord the same treatment to like products. In fact, NAFTA rules are so explicit when it comes to energy exports, that even the relative proportion of bitumen that flows through a particular pipeline may not be altered, should at some future date Canada wishes to adopt a policy that favours domestic processing. While each major export pipeline approved has constrained Canada’s policy options under NAFTA, approval of Northern Gateway will exacerbate the problem.

The Imperative to Develop the Canadian Oil Sands in a Responsible Manner

31. The ability of Canadian producers to find markets for oil products derived from bitumen will depend upon being able to demonstrate that the use of such products is consistent with the imperatives of sustainable development and reducing greenhouse gas emissions. Unfortunately the Federal government has adopted an increasingly belligerent posture in regard to its obligation to demonstrate the sustainability of the current development model of the oil sands, and in particular, to reduce greenhouse gas emissions.
32. The recent spectacular failure of the Keystone XL project to receive regulatory approval in the United States attests to the failure of Canada’s regulatory process to address broad sustainability considerations, including Canada’s willingness to approve export pipelines without regard to clearly related upstream or downstream impacts, or upon Canada’s ability to meet any meaningful GHG target.

33. Securing stable international markets for Canadian bitumen and SCO clearly requires a new approach to development approvals for export pipelines which enable oil sands development. Clean fuel initiatives underway in the United States and Europe, which propose to take into account the carbon intensity of particular fuels, are already having an impact on markets for Canadian bitumen. CEP believes that this is a reality the Board can no longer ignore. Therefore the environmental assessment of the Northern Gateway Project must include an assessment of whether the project is consistent the imperative to reduce GHGs.

34. According to the Royal Society of Canada’s Oil Sands Study (2010) the projected GHGs resulting from reaching oil sands production of 3.6 million bpd by 2020 will be 110-120 million tonnes – 73 million tonnes more than in 2008. At the same time, Canada’s international commitment made at the Copenhagen COP 15 is to reduce GHG emissions by 17% below 2005 levels, or by 127 million tonnes, roughly equal to the increase resulting from oil sands expansion. Unless and until these radically contradictory trends are explained and resolved to the satisfaction of the international community, Canada’s oil sands will remain mired in controversy, and accessing foreign markets will become increasingly difficult.

The Need to Assess Upstream and Downstream Environmental Impacts

35. CEP believes that it is incumbent on the Board to adopt a different approach than it has in the past to pipeline approvals unless it is to become increasingly out of step with international norms and expectations. A case in point being the very different approach...
adopted by the Board and the US Environmental Protection Agency in regard to the environmental impacts of the Keystone XL pipeline.

36. In its decision on Keystone XL, the Board stated, “After considering the evidence, the Board is not convinced that there are sufficient grounds for it to include a consideration of the upstream or downstream facilities either under the Canadian Environmental Assessment Act or NEB Act,” and went on to state:

The upstream and downstream facilities mentioned by SCC are not part of the applied-for project, are not undertakings that will be carried out by the Proponent in relation to the Project and are not directly related to the Project. As a result the Board as of the view that they were not properly part of the scope of the project or the scope of the environmental assessment.” National Energy Board, Reasons for Decision TransCanada Keystone Pipeline GP Ltd., OH-1-2009, at p. 72.

37. However, the U.S. EPA came to precisely the opposite, and we believe correct, conclusion in carrying out its reviews of the Draft Environmental Impact Statement (DEIS) of the KXL Project. Commenting on the failure of the Draft EIS to estimate GHG emissions associated with upstream oil sands extraction intended for the pipeline or downstream end use, the USEPA had this say:

“In order to fully disclose the reasonably foreseeable environmental impacts on the U.S. of the Keystone XL project, we recommend that the discussion of GHG emissions be expanded to include, in particular, an estimate of the extraction-related GHG emissions associated with long-term importation of large quantities of oil sands crude from a dedicated source. This would be consistent with the approach contemplated by CEQ's recent Draft NEPA Guidance on Consideration of the Effects of Climate. Change and Greenhouse Gas Emissions” (February 18, 2010).”
38. Underscoring the significance of the much greater carbon intensity of the oil sands crude, the USEPA explained:

"Extraction and refining of Canadian oil sands crude are GHG-intensive relative to other types of crude oil. Our calculations indicate that on an annual basis, and assuming the maximum volume of 900,000 barrels per day (bpd) of pipeline capacity, annual well-to-tank emissions from the project would be 27 million metric tons carbon dioxide equivalent (MMTCO2e) greater than emissions from U.S. "average" crude. Accordingly, we estimate that GHG emissions from Canadian oil sands crude would be approximately 82% greater than the average crude refined in the U.S., on a well-to-tank basis. To provide some perspective on the potential scale of emissions, 27 million metric tons is roughly equivalent to annual CO2 emissions of seven coal-fired power plants."

39. The USEPA went on to describe the nexus between the pipeline and oil sands production, a relationship the Board rejected, and put the matter this way:

"Based on our review, there is a reasonably close causal relationship between issuing a cross-border permit for the Keystone XL project and increased extraction of oil sands crude in Canada intended to supply that pipeline. Not only will this pipeline transport large volumes of oil sands crude for at least fifty years from a known, dedicated source in Canada to refineries in the Gulf Coast, there are no significant current export markets for this crude oil other than the U.S. Accordingly, it is reasonable to conclude that extraction will likely increase if the pipeline is constructed..." The EPA went on to provide the following assessment: "recognizing the proposed Project 's lifetime is expected to be at least fifty years, we believe it is important to be clear that under at least one scenario, the extra GHG emissions associated with this proposed Project may range from 600 million to 1.15 billion tons CO2-e, assuming the lifecycle analysis holds over time (and using the SDEIS' quantitative estimates as a basis)."
40. The US EPA determined that climate change impacts are fundamental to environmental assessment and to net social benefits. The EPA stated:

“The social cost of carbon includes, but is not limited to, climate damages due to changes in net agricultural productivity, human health, property damages from flood risk, and ecosystem services due to climate change.”

41. The Keystone XL experience has been characterized as a political or diplomatic failure. However, given these very different regulatory approaches, it should come as no surprise that many Americans are not convinced that Canadian oil sands development is based on a sustainable development model. CEP concludes that credible regulatory oversight must include the full spectrum of climate change impacts in environmental assessment and the calculation of net social and economic benefits. We recognize that the proponents may well object to the carbon impacts of pipeline projects that the EPA cited. However, this disagreement only underscores importance of the Board bringing its regulatory scope into line with international practice. If the approach adopted by Canadian regulators is substantially less stringent than that adopted by US officials, as is currently the case, Canada runs the risk of becoming a pollution haven in which major energy projects can be established without any realistic consideration of their environmental and related social impacts. It is would be impossible in our view to reconcile such an outcome with the Board’s mandate to protect the public interest of Canadians.

42. If the development of the Canadian oil sands is to be placed on a sustainable footing, two requirements must be met. The first would be greatly slow the pace of oil sands extraction far below projections that are presented by Enbridge as providing the rationale for the Northern Gateway Project. The second would be optimize value-added production, permitting bitumen exports only when proponents can meet the onus of proving that the benefits of bitumen exports exceed those of domestic value added
processing. The Northern Gateway Project is entirely incompatible with both objectives.

43. Any ‘social licence’ for the Northern Gateway Project would have to include a recognition and resolution of the many issues raised by First Nations in Alberta, BC and the Territories concerning Northern Gateway. Several First Nations have submitted extensive evidence documenting concerns and objections to this pipeline project. It is CEP’s contention that the social consent of First Nations must be a precondition for regulatory approval. While the full range of these interventions must be accorded the most serious attention, CEP notes the very critical issues of tanker traffic and spills presented in the written evidence of the Coastal Nations [CFN evidence A2K0J7; https://www.neb-one.gc.ca/ll-eng/livelink.exe?func=ll&objId=774208&objAction=Open citation].

Submitted on behalf of CEP;

David Coles, President

<original signed by>

Fred Wilson, Assistant to the President

<original signed by>

January 31, 2012
MEMORANDUM

To: CEPW

From: M.C. McCracken, CE

Re: Employment Consequences of Exporting Bitumen

I am CEO of Informetrica Limited, and have been asked by Communications, Energy and Paperworkers Union of Canada to comment on the Enbridge Northern Gateway Project and its potential impact on economic development in the Canadian oil and gas sector.

In National Energy Board proceeding, MH-1-2006, I prepared evidence assessing the prospective impacts of the Keystone Pipeline Project. For that purpose I considered three development scenarios to illustrate the very different economic impacts associated with the transportation of oil and gas resources depending upon whether pipelines are used to export unprocessed resources to foreign markets, or become an integral part of a Canadian energy infrastructure that includes significant resource processing prior to sale into domestic and international markets. A copy of that report is attached to this letter.

As part of that analysis we used an econometric model of the Canadian economy, to estimate the necessary expansion of the Canadian refining industry to process 400,000 barrels per day of heavy oil. This activity would add approximately 18,000 jobs per year to the Canadian economy, in addition to the additional jobs generated by export of the crude. While some of the inputs to our model have changed in the past half dozen years, the parameters of our analysis remain as valid today, and this is true regardless of the export market to be served.

In the case of the Northern Gateway Project, our understanding is that the primary purpose of the pipeline will be to export as much as 525,000 barrels per day of conventional light and heavy oil, synthetic oil, bitumen blended with condensate and bitumen blended with synthetic oil. In addition, the project includes a condensate pipeline running in the opposite direction, with throughput capacity of 193,000 barrels per day. That condensate would be reused to facilitate the transportation of bitumen largely for upgrading in export markets.

Accordingly, unless there is very rapid development of the oil sands (Scenario 3) the export of bitumen from Canada will preclude the job creation that would follow from establishing upgrading and refining facilities in Canada. As a first approximation, the incremental jobs involved in upgrading the Gateway volume would be about 26,000. (This is the proportional increase of the upgrading volume from 400,000 barrels per day to 525,000.) Suffice it to say however, that in any scenario, the foregone economic opportunity involved, if measured in jobs created, would be significant and larger than the operational requirements of the Gateway pipeline designed for bitumen exports from Canada.
The following evidence was prepared by M.C. McCracken, Chair and CEO of Informetrica Limited, for the Communications, Energy and Paperworkers Union of Canada and for the purpose of assessing certain aspects of the public interest that are engaged by the present Applications. We have been asked to comment on whether the evidence introduced by the Applicants provides a sufficient basis upon which the Board can determine whether it is in the public interest to grant the approvals being requested.

For the purpose of carrying out this assessment we have identified three development scenarios that reflect the extent to which Canadian oil and gas resources that may be transported by the Keystone Project are processed in Canada. The scenarios illustrate the very different outcomes that may arise from the decisions the Applicants are asking the Board to make. The following summarizes our views with respect to the public interest as it relates to these outcomes:

- The public interest includes concerns about the industrial structure and regional allocation of economic activity throughout Canada. Decisions made by the Board concerning the establishment, conversion and use of pipeline infrastructure may greatly influence the future path of the Canadian refining and chemical industries.

- The extent to which Canadian oil and gas resources are processed in Canada prior to being exported to, or sold into, domestic and international markets will have a significant impact on the Canadian economy and employment in Canada.

- In the case of the Keystone Project, domestic processing could readily represent an additional 18,000 jobs per year to the Canadian economy when compared with a scenario in which only unrefined heavy crude oil is exported to the US markets.

- The future paths for oil and gas supplies and prices are uncertain. Parts of the sector (prices, supplies, and demands) are interdependent. This combination of uncertainty and complexity are characteristic of situations where the use of scenarios is helpful in identifying the consequences that are likely to arise from potential future circumstances.

- By declining to provide information about the nature, sources and end-uses of the energy goods that will be transported by the pipeline facilities at issue, the Applicants have failed to provide the Board with the information it requires to assess the likely economic, commercial, supply and market impacts of the removal of the Facilities from gas transportation service and conversion to oil transportation service. The Board is not
therefore in a position to determine whether granting the present Applications would be in the public interest.

1 Background

The future demand and supply of fossil fuels is uncertain. Parts of the sector (prices, supplies, and demands) are interdependent. Growing population and a larger, richer Canadian economy will lead to increased demand for energy. The mix of fuels will reflect relative prices and availability. Continuing improvements in technology and conservation by energy users is expected to produce increased efficiency in use. This has been the continuing trend since the sharp rise in oil prices in the early 1970s. Nevertheless, the total demand for energy is likely to continue rising, in Canada and globally. Conventional Canadian oil production has been declining and is expected to continue to decline. Oil sands production is ramping up to much higher levels (and is expected to double or even triple by 2015 and further production increases are expected by 2025). Conventional natural gas supplies from the Western Canadian Sedimentary Basin (WCSB) are expected to continue a decline that started in 2002. Unconventional gas supplies in the Basin such as coal bed methane and tight gas deposits will be an offsetting factor, but Western Canadian gas supplies continue to decline, even with the new supplies from the Mackenzie Delta.

The uncertainties about the energy sector include:

- **World oil price volatility** – Will the current oil price soar to $100 per barrel or decline to $30 per barrel?
- **Heavy oil supplies** - Will heavy oil supplies grow dramatically in the next few years or will shortages of workers, water, natural gas, or other constraints moderate the pace of development?
- **Natural gas availability** – Will supplies from the Mackenzie Delta be delayed? Will conventional production decline more rapidly? Will unconventional gas supply expand rapidly or not?
- **Heavy oil exports** – Will adequate supplies of diluent be available? Will the price of diluent make exports of heavy oil uneconomic?

The Board faces the difficult task of making sequential decisions in the face of these uncertainties. As the Board has acknowledged, in making these decisions it must ascertain whether a particular project or undertaking accords with the public interest of all Canadians. In the present case, the Applicants have declined to provide information about the nature of the energy goods (including any diluent that may be used) that will be transported by the pipeline facilities once converted to oil service, including information about the extent to which such goods will be processed in Canada. It has also declined to provide adequate information about potential commercial, economic, supply and market impacts of the removal of the unprocessed heavy crude from the Canadian supply.

2 Development Scenarios

The following scenarios illustrate the very different economic impacts associated with the transportation of oil and gas resources depending upon whether pipelines are used to export unprocessed resources to foreign markets, or become an integral part of a Canadian energy
infrastructure that includes significant resource processing prior to sale into domestic and international markets.

2.1 Moving Heavy Oil to US Markets

The focus in this scenario is on extracting heavy oil and moving it to the US market for further processing. This requires the use of a diluent to reduce the viscosity of the oil so that it can be transported by pipeline. Various petroleum-based products can be used as a diluent. However, in all cases it means a lower volume of heavy oil is moved and a potentially valuable liquid is lost to the Alberta and Canadian market.

This scenario accords closely with the present Application, which appears to be proceeding on the premise that unprocessed heavy crude oil and diluent will be exported to the US, where it will facilitate the further development of the refinery and chemical industries.

The Canadian public interest will not be served if, as in this scenario, supplies of energy goods to Canadian refinery and chemical industries are truncated, and the development of a diversified oil and gas industry in Canada is frustrated by this lack of supply.

The hearings process should seek to determine if there are any adverse effects on the industrial structure and regional allocation from this project. Concerns have been raised by other interveners about the effect on natural gas supplies outside of the WCSB. Our additional concern arises from the potential consequences of removing 400,000 barrels a day of heavy oil and diluent from the output stream in Alberta without further processing.

2.2 Increasing Value-Added for Canada

An alternative scenario would establish pipeline facilities to transport heavy oil to domestic facilities for upgrading, and from there as light crude to refineries and other end-users, including Canadian chemical producers. Because light crude is a higher value product, it has greater flexibility in the marketplace because it can be used as feedstock for the refinery industry, producing gasoline, jet fuel, and light fuel oil. Refineries also generate by-products that are the feedstock for the petrochemical industry. The increased value of light crude should be sufficient to support the costs of upgrading in Canada.

This path would see increases in upgrading facilities develop in line with expanding oil sands production. According to this scenario, the pace of development of the oil sands would be more in line with Canadian rather than US priorities.

Consistent with this approach, the export of natural gas liquids as a diluent would occur only where it was not needed as feedstock for Alberta or other Canadian chemical industries. This would encourage the further development of the Albertan and Canadian chemical industries by ensuring adequate feedstock supplies in the future.

Through a growing refinery and chemical industry, there would be additional intermediate supplier opportunities. As a result there would be greater diversification of the Albertan and Canadian economies resulting in enhanced employment opportunities and rising real incomes.

Using an econometric model of the Canadian economy, we estimate that expansion of the Canadian refining industry as a source of demand for 400,000 barrels per day of heavy oil would add approximately 18,000 jobs per year to the Canadian economy as compared to the additional jobs generated by export of the crude. An increase in annual employment in the refinery industry of about 4,800 would constitute a 30 per cent increase in industry employment. For the economy as a whole, the refinery option would add 0.2 per cent to Canadian GDP when compared to a case where heavy oil is only exported. Impacts would be positive across provincial jurisdictions, including in scenarios where the addition to refinery capacity is concentrated in one province.
Expansion of the refining industry also provides feedstocks to support the Canadian chemical industries, in addition to the more conventional list of petroleum products – gasoline, fuel oil, jet fuel, etc. This support will create jobs in the chemical sector in addition to those projected to arise from upgrading and refining heavy oil products. In this scenario the public interest is served through enhanced growth opportunities for many different firms in a number of industries.

2.3 A Third View

The most optimistic scenario foresees the expansion of oil and gas supply in Canada proceeding so rapidly as to fully satisfy the goals of both scenarios one and two. Thus, increases in oil sands production will provide by-products to support the Alberta and Canadian chemical industry, and to provide for its expansion. Upgrading of oil would occur to approximately 66% of oil sands production - three times the current volume. According to this scenario, supplies are sufficient to provide feedstock for the refining industry and a higher value-added export as well. The premise underlying this scenario is that, contrary to past experience, current high prices will extend well into the future. As a result the rapid development of heavy crude exports makes good sense, and will provide the cash flow to support additional investments in the oil sands in the future.

3 Serving the Public Interest

If one looks ahead to 2025, when oil sands production is anticipated to be three times greater, will Canada have a robust chemical and refining industry that creates quality employment and profitable operations? Or will an increasingly large proportion of Canadian oil and gas resources be exported to the US for processing and secondary end-uses?

In either case, we may look back at the decisions the Board will make in this case as “keystone” events that either truncated or fostered the economic development of the Canadian downstream energy industry.

To better assess the likely consequences of the approvals and determinations the Applicants are seeking, CEP formulated a number of questions that the Applicants declined to answer including the following:

- What is the nature of the oil products that are proposed to be transported by the Pipeline, and in what relative quantities will such exports occur?

- Will diluent be required for such transportation and if so in what form(s) and quantities?

- Describe any end-uses to which this diluent may be put, and whether these will occur in Canada or the US.

- What is the source of this diluent, and what price assumptions are being made about the diluent?

Similarly, the Applicants declined to provide substantive responses to other information requests concerning the impacts of the present Applications on existing and potential future value-added

1 TransCanada/Keystone Responds to CEP, Item 1 August 22, 2006
processing of the gas and prospective oil products in question. Contrary to the Applicants' assertion, the issue is not whether a pipeline can carry any oil product, but rather if the line carries heavy oil and diluent will this inhibit the development of the downstream processing sector? This question is crucial to assessing the commercial, economic, supply and market impacts of the removal of the conversion of the Facilities from gas to oil service.

Therefore, by declining to describe the source, nature and potential end-uses of the energy goods and diluent that may be used to transport them, the Applicants have failed to provide the Board with the evidence it needs to determine whether the proposal before it will foster or undermine the development of a diversified and robust energy sector in Canada. This question is central to a determination of whether the present Applications will serve the Canadian public interest. Accordingly the Board does not have the evidence it needs in order to determine whether the transfer and/or conversion of the Facilities from gas to oil service is in the public interest.
Western Canadian Oil Supply Scenarios of CAPP and Enbridge Compared to Export Capacity, 2005-2035

(Forecasts from CAPP, 2011 and Enbridge, 2011; Domestic Demand from Statistics Canada, 2011 and NEB, 2009; Export Pipeline capacities from Enbridge and Alberta ERCB, 2011)

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