



# Environmental Assessment Review

## Accounting for Full GHG Impacts and Importance of Meaningful Expert Participation

Presentation to Expert Panel  
Brigid Rowan, Senior Economist  
The Goodman Group, Ltd. (TGG)  
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# Introduction

1. Background and expertise [1] [2]
2. Context
  - Climate Change
  - A Key Solution: Carbon Price + Regulations
  - Paramount Importance of Effective EA Review
3. Presentation will address 2 major and interrelated areas to help fix broken EA Process
  - I. Importance of accounting for upstream and downstream GHG impacts in crude oil pipeline projects (Q1 & Q2 in Scope of Review)
  - II. Importance of Meaningful Expert Participation (Q3)



## Context

- Urgent need to address climate change in Canada and internationally, and to meet Paris Accord commitments.
- General consensus among economists is that recent federal carbon pricing announcement is a positive step but needs to be combined with effective regulations to meet needed emissions reductions.
- This EA review is very important:
  - It will guide regulations regarding the determination of GHG impacts, as well as other environmental impacts, of large projects;
  - It can provide a more even playing field to allow meaningful and credible participation (with expert support) of various stakeholders who have been excluded or marginalized from full participation in EA.



# Part I: Accounting for GHG Impacts in Crude Oil Pipeline Projects

- Under current EA, NEB does not account for upstream and downstream GHG impacts for pipeline projects
  - Except for interim measures established to “assess” upstream GHGs for Trans Mountain and Energy East.
- Interim measures step in the right direction, but
  - Do not consider downstream GHGs (which can be significantly larger than upstream GHGs)
  - Unclear to what extent ECCC’s interim assessment method for upstream impacts is appropriate and how it will be applied.
- EA Review should (a) establish a clear guidelines for the determination of a range of full GHG impacts (direct, upstream and downstream) of pipelines and other major projects; (b) provide clear direction as to how the determination of GHG impacts should be applied to the regulatory context.



# GHG Impact Determination: Complex, Challenging, Controversial

- We acknowledge the challenge and complexity of determining upstream and downstream GHG impacts from pipeline projects.
- **A precise determination of full GHG impact (including direct, upstream and downstream impacts) of a given pipeline project is very difficult.**
- Requires a highly sophisticated analysis that examines a range of scenarios and many interactive effects (to model the dynamic market conditions that exist in the real world petroleum markets).
- There are major conceptual issues about how to set up the analysis; major issues/uncertainties about how to conduct the analysis and provide useful guidance for decision-making.
- **GHG impacts are highly uncertain** and estimates change over time depending crude oil market conditions and other interactive effects.
- **GHG impact determination is highly controversial and assumptions on the size of impacts will be strongly linked to positions re tar sands expansion (for or against):**
  - Tar sands proponents often (unreasonably) assume away most if not all incremental GHG emissions and maintain that if a pipeline isn't built, oil will get to market via rail, truck or tanker. Such assumptions were made in the case of Keystone XL and currently regarding Energy East. See TransCanada's FAQ on Energy East.<sup>3</sup>
  - Tar sands opponents often assume (and sometimes reasonably) that every barrel of crude transported by a given project will result in a barrel of expanded crude production in the tar sands; therefore the incremental emissions are equivalent to 100% of all crude transported by the pipeline.



# GHG Impact Determination: It's Hard but Do It Anyway

- These challenges do not imply that full GHG impacts should not be estimated.
- It's 2016 and full GHG impact is of concern to large numbers of Canadians, as well as a Liberal campaign promise.

We will explore, consult, and work collaboratively to move towards a system where federal environmental assessments of projects include an analysis of upstream impacts and the greenhouse gas emissions resulting from the projects being assessed.<sup>4</sup>

- Continuing failure to consider full GHG impact is no longer viable and unlikely to enable credible decision-making or help grant social licence.



# Relevant US Example of Accounting for GHG Impacts: Keystone XL

- Full GHG impacts are indeed considered in US for federal environmental assessments (under the National Environmental Policy Act). The Council on Environmental Quality (CEQ) issues guidance to provide Federal agencies direction on when and how to consider the GHG impacts.<sup>5</sup>
- Obama indicated that he would not approve KXL if it contributed to climate change.
- US State Dept. calculated a range of GHG impacts calculated in the KXL EIS process (and several scenarios were developed based on a different oil price scenarios). In 2013 and 2014 determined that KXL would not result in increased emissions because if Keystone XL were not approved, tar sands crude would likely reach the market by rail. Therefore, the EIS concluded that while tar sands production significantly increases GHGs, significant emissions would occur with or without the construction of the pipeline. These findings were rejected by many stakeholders including ENGOs, indigenous and public interest groups and their experts (such as TGG) and questioned by the EPA.<sup>6</sup>
- In early 2015, the EPA urged the State Department to revisit its conclusions regarding KXL's contribution to climate change. Given the recent large declines crude prices and the uncertainty of projections, EPA concluded that the construction of KXL would result in increased tar sands production and increased GHG emissions.<sup>7</sup>
- These findings coupled with the negligible economic benefits of KXL and the US shale oil boom contributed to Obama's 2015 rejection of the project.



# Recommendations for Consideration of GHG Impacts

- Recognize that there are **big uncertainties** (re assumptions, methodology, results) in the determination of full GHG impacts and consider **a range of impacts**, which may vary from very small to very large.
- Recognize there are **limits in what can be determined even with the best analysis**.
- Understand that there will be **considerable judgment required** in the determination of range of estimates
- **At EA level**, consider these uncertainties and range of impacts in developing findings/recommendations and potential conditions/mitigation.
- **At Cabinet-review level**, consider these uncertainties and range of impacts in determining whether projects should be approved, as well as potential conditions/mitigation (both for specific projects and more broadly).





## Recommendations for Consideration of GHG Impacts (Continued)

- In terms of broader Cabinet-level decision-making, government is not just looking at specific projects but at a **much wider array of activities and policies, so mitigation and off-setting can be much broader** than at a project level.
- If Cabinet is going to consider approving major tar sands pipelines, to be credible, the government must have workable plans for how such projects could be consistent with meeting emissions reductions targets. **Stated more directly, if meeting emissions reduction targets forecloses major further growth in tar sands production, it becomes much more questionable that a major expansion of tar sands pipeline takeaway capacity is necessary or even advisable.**
- **Hire skilled, independent and unbiased experts** to determine the specific guidelines for the calculation of full GHG impacts in the EA Review. Beware of experts who rely on proprietary models, which cannot be evaluated or verified. It is bad practice to base public policy decisions on proprietary and little-known models.

## Part II: Importance of Meaningful Expert Participation in EA Process

- The technical challenges of complexity of GHG Impact Accounting **illustrate the importance of meaningful participation of credible and skilled experts and lawyers.** The regulation of crude oil pipelines (and other big projects) typically requires high-quality technical expertise (economic, engineering, regulatory) combined with competent & specialized legal assistance from a lawyer with a background and experience in EA and before regulatory tribunals.
- **Access to adequate levels of intervenor funding is essential** to allow ENGOs, public interest and indigenous groups to hire high-quality expert and legal assistance.
- **The current very low levels of intervenor funding substantially disadvantage intervenors** (particularly NGOs and indigenous groups) and **can substantially advantage proponents.** Moreover proponents can often recover costs from customers. (Machine guns vs. sticks.)
- Many positive changes could help fix broken EA process, but **this whole EA review will be an empty gesture absent dramatic enhancement of intervenor funding** (and a workable process for intervenors to access it) to allow for skilled expert and legal assistance.

# Role of Public Participation Vs. Expert Participation

- Public consultation is valuable and it is useful for the public and intervenors to express themselves to the government.
- This government seems committed to enabling and enhancing democratic processes and civil society. And enabling fuller and more effective expression of public opinion in EA and regulatory processes is useful and important.
- **However, public participation cannot substitute for enabling fuller and more effective expression of intervenor positions via experts and lawyers.**
- Energy regulation and EA processes are typically highly technical and complex. These processes are not elections. Decisions in these processes are generally made by regulators or judges not juries. Regulators need to try the facts and make decisions that are typically based heavily on expert evidence as opposed to public opinion.
- Giving people their say without the benefit of expert assistance does not provide a meaningful and fair process.



# Benefits of Expert Participation: Improved Decision-Making and De-Escalation of Tensions

- Significant pipeline opposition throughout North America and situation is escalating.
- To de-escalate, it is vital to provide alternatives to frustration, venting, civil disobedience, which are often last resort for those without a seat at the table.
- The opportunity for meaningful representation and exchange at the expert level gives intervenors a more powerful voice in the process on a more level playing field; helps de-escalate tensions on very controversial issues; but also enriches the EA process, assists the tribunals tremendously by providing new ideas and different perspectives, and allows for better decision-making.

## Example of Vastly Inadequate Expert Funding

- In September 2015, the government announced that it would cut the maximum funding cap for Energy East from \$80K to \$40K.<sup>8</sup>
- For an intervenor who wants to hire a competent lawyer and high-quality expert assistance on Energy East (with an incomplete Application from TransCanada of over 20,000 pp) even \$80K is insufficient. Particularly given that the case and process are open-ended and could go on for months.
- \$40K/intervenor for Energy East is vastly inadequate and will not encourage meaningful intervenor participation. It will not cover the legal bill let alone expert assistance.
- A recent decision to expand the scope of the case another four months (to allow for hearings and cross-examination of experts) did not result in an increase in intervenor funding. Consequentially, this increased scope may inadvertently disadvantage intervenors.



# Recommendations for Meaningful Expert Participation

- Real democracy requires the ability for intervenors to effectively participate via experts and lawyers to be on a somewhat level playing field with proponents. **This requires a significant increase in intervenor funding levels**
- **Do away with insufficient funding caps and instead have intervenors justify their budgets in advance and obtain approval.** A maximum cap should not be granted automatically to each intervenor, particularly if the intervenor is not making a relevant contribution to the case (or not able to justify the funding). Nor should there be a maximum cap for those who are planning a major contribution and can justify their budget.
- **Grant funding to intervenors who can demonstrate how their proposed subjects are relevant** to their area of interest, but also relate to the subjects defined in the Issues List set out by the tribunal (as is done before most provincial energy boards, such as the OEB and QC's Régie de l'énergie). The intervenor should also endeavour to demonstrate to the tribunal how it can be of assistance to the panel in the regulatory process and decision-making.
- **Apply relatively strict and tight deadlines evenly for all parties** (intervenors and proponents) in such a way that as to avoid increased scope and long, drawn-out processes that accentuate the resource disadvantage of intervenors.
- If the scope of the case (or the required level of participation of a given intervenor) increases beyond the what could have been reasonably forecast in the original budget, **allow intervenors to the opportunity to justify an additional budget if they are making a useful contribution.**



# Study the Intervenor Funding Practices of Provincial Regulatory Boards

- Review the practices of provincial energy boards
- Intervenor funding and processes in other non-federal jurisdictions may not be optimal, but the Régie de l'énergie in QC and the OEB in ON typically provide sizable levels of intervenor funding for experts and lawyers.
- In our experience, the Régie and OEB practices and funding typically allow intervenors to play a more meaningful and effective role in the regulatory process than in some of the federal processes (notably recently at the NEB). Intervenor funding for both provincial boards encourages expert participation as follows:
  - Much higher funding levels available for experts and lawyers
  - Generally no funding caps for big cases
  - Advance justification and approval of budget required
  - Post-facto justification of budget overages permitted.



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# Endnotes & Resources

1. CV of Brigid Rowan: <http://www.thegoodman.com/pdf/TGG20160716BrigidRowanCV.pdf>
2. The Goodman Group's experience in evaluating the economics of crude oil pipelines: <http://www.thegoodman.com/pipeline-economics-regulation>  
Since 2011, Ian Goodman and Brigid Rowan of TGG have co-authored expert reports and testimony on North America's most controversial pipeline projects, including: TransCanada Keystone XL, TransCanada Energy East, Enbridge Line 9 Reversal and Capacity Expansion and Kinder Morgan Trans Mountain Expansion.
3. In answer to FAQ2, on the Energy East website, TransCanada assumes that if Energy East isn't built, oil will get to market via rail, truck or tanker. <http://www.energyeastpipeline.com/3-answers-to-questions-about-pipelines-and-climate-change/>
4. A New Plan for Canada's Environment and Economy, p. 9. <https://www.liberal.ca/files/2015/08/A-new-plan-for-Canadas-environment-and-economy.pdf>
5. CEQ Guidance for US Federal Agencies on Consideration of GHGs and Climate Change in Evaluation of Federal Actions. [https://www.whitehouse.gov/sites/default/files/docs/nepa\\_revised\\_draft\\_ghg\\_guidance\\_searchable.pdf](https://www.whitehouse.gov/sites/default/files/docs/nepa_revised_draft_ghg_guidance_searchable.pdf)
6. In April 2013, The Goodman Group filed comments to the US Department of State on behalf of a coalition of the largest US environmental groups (Sierra Club, National Wildlife Federation, NRDC, Oil Change International, 350.org) and 11 other environmental and public interest organizations: [http://www.thegoodman.com/pdf/TGG20130422\\_Sierraetal\\_KeystoneXL\\_DSEISComments.pdf](http://www.thegoodman.com/pdf/TGG20130422_Sierraetal_KeystoneXL_DSEISComments.pdf)  
Based on our evaluation of 2013 market conditions (including emerging crude markets, factors driving tar sands expansion, availability and cost of crude oil transportation, and tar sands breakeven costs), we concluded that KXL would have a significant impact on tar sands expansion (and thus incremental GHG emissions) under a very broad range of conditions and assumptions. In light of the recent US energy boom followed by a crash in crude prices, this report is standing up well over a period of intense market shifts.





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## Endnotes (continued)

7. A February 2, 2015 letter from the EPA with comments on the Department of State's Final Supplemental Environmental Impact Statement (FSEIS). [http://www.eenews.net/assets/2015/02/03/document\\_gw\\_04.pdf](http://www.eenews.net/assets/2015/02/03/document_gw_04.pdf)

The letter provides strong support for the position that the approval of Keystone XL would be highly likely to enable the development of the tar sands and result in significant increased greenhouse gas emissions (given the recent and dramatic declines in crude prices and accompanying changes in crude projections). **The EPA discusses why these GHG impacts needed to be reconsidered in light of the recent dramatic decline in crude oil prices and how at sustained oil prices within US\$65-\$75/bbl range, construction of the pipeline was projected to change the economics of tar sands development and result in increased tar sands production, and the accompanying greenhouse gas emissions, over what would otherwise occur.** Note in the EIA's most recent price forecast, the average price of WTI crude was under US\$50/bbl in 2015 and is forecast to remain under \$50/bbl through 2017. Although there is significant uncertainty in oil price forecasting, many analysts acknowledge that crude prices will likely remain "lower for longer."

Given the recent large declines in crude prices and the uncertainty of projections, the EPA urged the State Department to revisit its conclusions regarding Keystone XL's contribution to climate change. EPA concluded that the construction of Keystone XL under the 2015 crude prices and updated projections was likely to result in increased tar sands production and increased greenhouse gas emissions over what would otherwise occur.

According to the EPA letter, the State Departments Final Supplemental EIS (from January 2014) estimated that:

the incremental greenhouse gas emissions from the extraction, transport, refining and use of the 830,000 barrels per day of oils sands crude that could be transported by the proposed Project at full capacity would result in an additional 1.3 to 27.4 million metric tons of carbon dioxide equivalents (MMTCO<sub>2</sub>-e) per year compared to the reference crudes. [footnote in original: FSEIS, p. ES-15] To put that in perspective, 27.4 MMTCO<sub>2</sub>-e per year is equivalent to the annual greenhouse gas emissions from 5.7 million passenger vehicles or 7.8 coal fired power plants. [footnote in original: FSEIS, p. ES-15] Over the 50-year lifetime of the pipeline, this could translate into releasing as much as 1.37 billion more tons of greenhouse gases into the atmosphere. [footnote in original: FSEIS, p. 4.14-46]



## Endnotes (continued)

Based on projections of the crude prices in January 2014, the FSEIS concluded that if Keystone XL were not approved, tar sands crude would likely reach the market by rail and although rail is more expensive than pipeline, this price differential would not affect the development of the tar sands. Therefore, the FSEIS concluded that while tar sands production significantly increases GHGs, significant emissions would occur with or without the construction of the pipeline. However, given recent and dramatic declines in crude prices and accompanying changes in crude projections at the time (which continue today), the EPA's letter urges the State Department to reconsider this conclusion:

Given the recent variability in oil prices, it is important to revisit these conclusions. While the overall effect of the Project on oil sands production will be driven by long-term movements in the price of oil and not short term volatility, recent large declines in oil prices (oil was trading at below \$50 per barrel last week) highlight the variability of oil prices. The Final SEIS concluded that at sustained oil prices of \$65 to \$75 per barrel, the higher transportation costs of shipment by rail "could have a substantial impact on oil sands production levels- possibly in excess of the capacity of the proposed project." In other words, the Final SEIS found that at sustained oil prices within this range, construction of the pipeline is projected to change the economics of oil sands development and result in increased oil sands production, and the accompanying greenhouse gas emissions, over what would otherwise occur. Given recent large declines in oil prices and the uncertainty of oil price projections, the additional low price scenario included in the Final SEIS should be given additional weight during decision making, due to the potential implications of lower oil prices on project impacts, especially greenhouse gas emissions.

8. Smith, Connell, "First Nations demand halt to Energy East review over funding cut," CBC News website, Sept 21, 2015. <http://www.cbc.ca/news/canada/new-brunswick/neb-energy-east-intervener-funding-1.3236504>