



OEB Energy East Consultations

Provincial Stakeholders Group

January 29, 2015



Northwatch is a regional coalition of environmental and social organizations and individual members in northeastern Ontario.

Northwatch addresses regional issues, primarily related to crown land use and natural resource conservation, including:

- Forests
- Energy
- Mineral exploration and development
- Waste management
- Water quality







NATURAL ENVIRONMENT IMPACTS



Overview

The Ontario Energy Board (OEB) asked Det Norske Veritas (Canada) Ltd. (www.dnvgl.com) to review TransCanada's Energy East Application (the Application) and provide advice with respect to impacts on the natural environment in Ontario.

We reviewed about 2,500 pages of the Application and associated Environmental and Socio-Economic Effects Assessment (ESA) to assess how well the Application addressed industry best practice and environmental issues raised by First Nations and the general public.

Preliminary Assessment

What guided our work

The Application was reviewed in accordance with:

- the six principles stated in the Minister's letter;
- the Part One Public Consultation Report by Swerhun Inc.;
- the Part One First Nations and Metis Report by Counsel Public Affairs;
- the Background Environmental Considerations Report prepared by TERA;
- the NEB Filing Manual; and
- professional judgement.

Was the information we need supplied in TransCanada's Application?

The Application is incomplete. Additional information to be filed includes numerous Technical Data Reports (TDRs) for a number of environmental and socio-economic disciplines, additional information supporting

ESA Volume 6 Accidents and Malfunctions and additional project description information on the converted pipeline. TransCanada committed to file this additional information in Q4 2014 but will now file it in 2015. Additional site-specific environmental protection information is to be filed in Q1 2015. Thus it is only possible to conduct a high level assessment of the Application at this time.

The natural environment-related information in the part of the Application pertaining to the 1928 km of the converted portion of the pipeline:

- is narrowly limited to 28 new pump stations and access roads, 2 new trenchless river crossings (Madawaska and Rideau) and pipeline operation and maintenance; and
- provides no distinction in route selection criteria between an oil and a gas pipeline. In the Enbridge Northern Gateway Panel Report, the NEB recognized the importance of route selection in mitigating environmental impacts of an oil pipeline.



NATURAL ENVIRONMENT IMPACTS (CONTINUED)



The ESA addresses spills during operations (on both the converted and new construction portions of the pipeline) only in Volume 6 Accidents and Malfunctions, which as stated earlier is incomplete.

With an incomplete Application, it is premature to assess:



- the Application's general conclusion of "no significant adverse environmental effects";
- if the Application meets "the highest available technical standards for environmental protection"; or
- if the Application reflects "world leading contingency planning".

Key Observations

Impacts on Water

- The Application is incomplete with respect to impacts on drinking water.
- Trout Lake, Rideau River, Private Well Clusters in the Area and water wells are not properly addressed but information on surface water intakes and springs on 95% of the crossings.
- The Application commits to provide alternative sources of drinking water in the event of a spill. ?
- Of 102 water crossings on the 104 km new pipeline segment in eastern Ontario, the Application proposes 7 to be crossed using trenchless technology, 49 to be crossed using the isolation method and the remainder to be open cut if dry or frozen. At a high level, this proposal appears to be consistent with industry best practice.
- Routing in proximity to the St. Lawrence River is not addressed. A potential alternative route along a railway right-of-way further north is not discussed, even though it is shorter, crosses fewer watercourses, encounters fewer environmentally sensitive features and increases the separation distance from the pipeline to the River, which would assist with emergency response efforts in the event of a spill.

DNV GL puts forward the following for consideration:

- Undertaking full-bore rupture modelling to demonstrate potential spill paths into watercourses for each 1-kilometre long segment of the converted and new pipeline in Ontario.
- Mapping of all surface water intakes and springs within areas of potential spill paths.
- Consulting the public, First Nations and agencies regarding water uses including recreation.
- Rerouting the pipeline where too close to sensitive water resources or justifying why rerouting is not necessary to protect sensitive water resources.
- Rerouting the new pipeline to follow the railway route north of the St. Lawrence River or justifying why rerouting is not necessary.
- Using above information to inform design of "significant water crossings", reroutes, pipe spacing, contingency plans and emergency response plans (ERPs).
- Preparing source water protection plans for high profile areas including Trout Lake, the Rideau River and Nepean and Oxford Aquifers.
- Preparing Watercourse Crossing Management Plans for all crossings prior to pipeline operation.



NATURAL ENVIRONMENT IMPACTS (CONTINUED)



Impacts on Rideau Canal

• The Application recognizes the Rideau Canal as a National Historic Park and UNESCO World Heritage Site. The Rideau River is recognized as a Canadian Heritage River. The Application proposes a trenchless crossing technique with a contingency open-cut.

DNV GL puts forward the following for consideration:

• Preparation, implementation and monitoring of a detailed Rideau Canal Trenchless Crossing Environmental Protection Plan complete with contingency open-cut crossing protection measures if the trenchless crossing methodology proves infeasible.

Impacts on Fish and Wildlife Habitat

• The Application predicts no significant effects on fish and wildlife habitat except the potential for cumulative effects on woodland caribou habitat at two pump stations (Smooth Rock Falls and Potter) in the Mesagami Range.

• Offset measures consistent with the Woodland Caribou Recovery Program are proposed in the Application to compensate for the permanent loss of woodland caribou habitat; however details are not provided.

Impacts on Provincial Parks, Conservation Areas and other natural areas

• The proposed pipeline crosses 8 Provincial Parks, 2 Conservation Reserves and 4 Conservation Areas, but there is no detail on impacts or mitigation.

• Wetlands are addressed at a high level but there is no detail on impacts or mitigation.

DNV GL puts forward the following for consideration:

• Preparing detailed protection plans for Provincial Parks, Conservation Reserves and Conservation Areas.

• Conducting pre-construction study to address avoidance, function, mitigation, monitoring and compensation for wetland loss.

Impacts on Agricultural Resources

• Agricultural soils and land use are described and mapped in the Application. No detailed ERPs for land based spills are provided. No drain tile are noted on new pipeline segment.

DNV GL puts forward the following for consideration:

• Mapping and repairing any agricultural drain tiles crossed on the new construction segment.

• Developing an approved project specific ERP to address land based spills.

Other Considerations

• Completing Traditional Ecological Knowledge (TEK) and Traditional Land Resource Use (TLRU) studies and demonstrating how this new information has been integrated into the ESA and changed project planning.

• Studying the 125+ km of power lines (that will serve pump stations and remotely controlled mainline valves) and other ancillary facilities and incorporating mitigation into this Project.



PIPELINE SAFETY



Overview

Who we are

DNV GL is the world's leading ship and offshore classification society, the leading technical advisor to the global oil and gas industry, and a leading expert for the energy value chain including renewables and energy efficiency. Operating in more than 100 countries, our 14,500 professionals are dedicated to helping our customers make the world safer, smarter and greener.

What the OEB

The OEB retains independent safety consultants for the Energy East Pipeline. Two main aspects of integrity and safety

Preliminary Assessment – Pipeline Integrity

What guided our work

During the Part One consultations, Ontarians expressed concerns about the integrity of the existing gas pipeline that was proposed for conversion to oil service. In assessing the Energy East application, we were guided by the principle set out in the Minister's letter that "Pipelines must meet the highest technical standards for public safety and environmental protection."

Was the information provided in the

In general, the information provided in the application was sufficient to address the key issues. However, more information is required to fully assess the pipeline's integrity and safety.



OEB Energy East Consultation

CLIMATE CHANGE



Overview

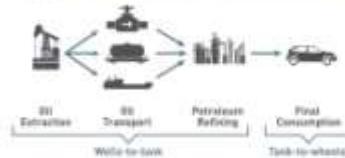
During the Ontario Energy Board's public consultations in 2014, several stakeholders expressed concerns that approval of the Energy East project would lead to greater greenhouse gas (GHG) emissions. As a result, the OEB wishes to advise the Ministry of Energy on how the project is likely to affect GHG emissions. The OEB has retained Navius Research Inc. to estimate how the approval of Energy East would affect GHG emissions. Navius specializes in the analysis of how government policy or energy decisions affect GHG emissions.

Who are we?

Navius Research Inc. specializes in estimating the impact of government policy on greenhouse gas emissions. For more information, visit www.NaviusResearch.com or contact Peter at Peter@NaviusResearch.com.



Major Sources of GHG Emissions in Oil Markets



How is the project likely to affect GHG emissions upstream or downstream from the oil sands?

The approval of the Energy East project is likely to result in greater emissions of greenhouse gases from the oil sands sector (upstream) and from the transportation sector (downstream).

While building and operating a pipeline will emit GHGs, the impact upstream or downstream from the pipeline is likely to be more important.



OEB Energy East Consultation

ECONOMIC IMPACTS



Overview

The Mowat Centre is an independent public policy think tank located at the School of Public Policy & Governance at the University of Toronto and Ontario's non-partisan, evidence-based voice on public policy. (www.mowatcentre.ca)

We were asked to review the short and long term economic impacts of the Energy East project in Ontario. For this we looked at the economic impact statement submitted by TransCanada and claims made by the company.

Mowat Centre
UNIVERSITY OF TORONTO

Preliminary Assessment

1. Economic benefits estimated by TransCanada are likely inflated.

The commonly-used technique of Input/Output modelling was used to estimate the economic impact of the Energy East project in Ontario. However, these models:

- Assume that past or present scenarios accurately predict the future, and do not account for any changes in the economy over the lifespan of the project.
- Assume large indirect benefits for the economy. They do this by applying multipliers to the direct project spending. A multiplier

is an estimate of how the spending on the project will affect the rest of the economy. Multipliers tend to inflate indirect benefits because they do not account for shortages in labour or for alternate use of the resources.

Do not use discount rates in the calculations to account for future uncertainty and costs. A discount rate is used to value future costs and benefits in today's dollars. If a discount rate were used in the economic modelling, the projected benefits would be significantly lower.

As a result, the estimated benefits should be seen merely as illustrations of potential benefits.

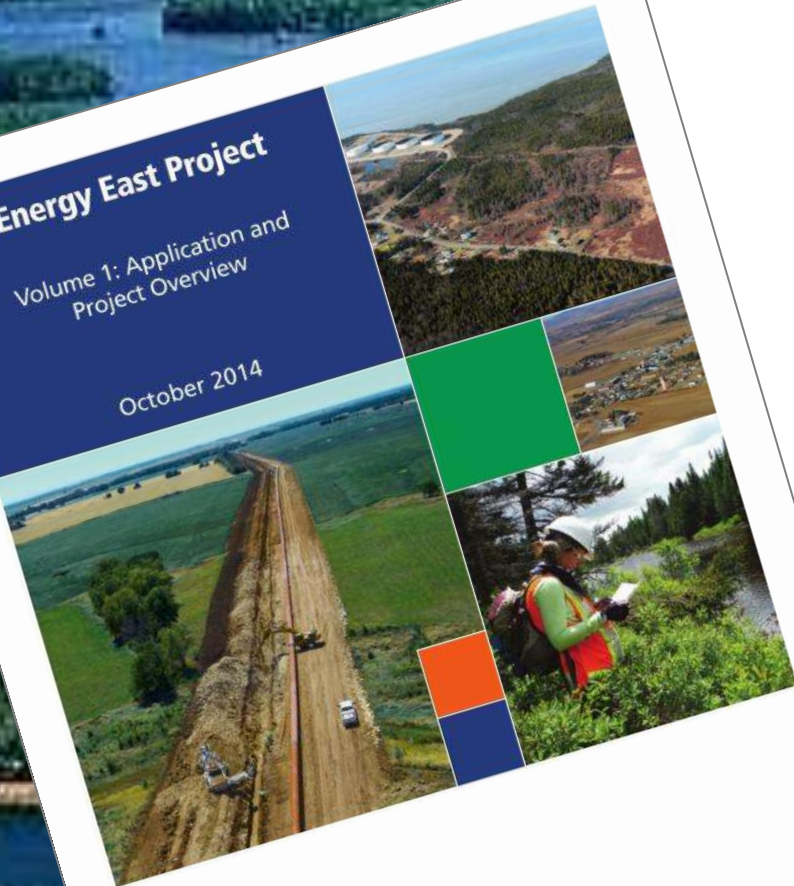


OEB Energy East Consultation & Review

Energy East Project

Volume 1: Application and Project Overview

October 2014



Submitted to:
The Secretary
National Energy Board
517 10th Ave SW
Calgary, Alberta, T2R 0A8

Energy East Pipeline Project

Volume 1: Overview

September 2014

Prepared for:
Energy East Pipeline Ltd.
Calgary, Alberta

Prepared by:
Stantec Consulting Ltd.
Calgary, Alberta

Project

December 29, 2014

National Energy Board
517 Tenth Avenue SW
Calgary, AB T2R 0A7

Attention: Ms. Sheri Young, Secretary of the Board

Dear Ms. Young:

Re: Energy East Pipeline Ltd. (Energy East)
TransCanada Pipelines Limited (TransCanada)
Energy East Project and Asset Transfer Applications (Application)
Board File OF-Fac-Pil-E366-2014-01 01

In its Application, Energy East indicated that additional information pertaining to environmental matters and Aboriginal engagement would be submitted to the Board in the fourth quarter of 2014 (NEB Filing ID A41D8R1).

Energy East wishes to advise the Board that the submission is being completed and the filing will take place in the New Year.

Yours truly,

Original signed by
Elizabeth Swanson
Associate General Counsel
Pipelines and Regulatory Law

c.c. Carolyn Pharand, Senior Operations Officer, Major Projects Management

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Filed Electronically



Options and Advice for Ontario

- Must be rigorous in all permitting and review processes
- Seek opportunities to block the project
- Designate by regulation for a full Environmental Assessment under the Ontario Environmental Assessment Act
- Signal strongly the NEB that the review cannot proceed without a full Application from TCPL
- In the context of the NEB, insist on terms and conditions that will meet Ontario principles

Conclusions

- Project is high risk with little or no benefit for northern Ontario
- Operator has a troubling track record; potential environmental consequences of pipeline increase with conversion to crude oil AND diluted bitumen
- Carbon considerations are integral to any and all decision-making

Thank You.

Brennain Lloyd

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