Presentation to Ontario Energy Board re: Energy East Project

The Northwestern Ontario Municipal Association (or NOMA) welcomes the opportunity to provide the Ontario Energy Board with our region's municipal perspective on the proposed conversion of one of the existing TransCanada Pipeline's natural gas lines to crude oil and the construction of a new line in Northeastern Ontario.

The Northwestern Ontario Municipal Association represents the interests of 36 municipalities from Kenora and Rainy River in the west to Hornepayne and White River in the east.

Our mission is "to provide leadership in advocating regional interests to all orders of government and other organizations."

NOMA approaches the Energy East project from three perspectives:

1. What is the alternative,
2. The protection of the natural environment and our citizens
3. Who pays

1) The Alternatives

Whether it is being transported by rail or by pipeline crude oil will traverse Northwestern Ontario. By and large, the watercourses that CN and CP's main sets of tracks cross are the same ones that the current buried TransCanada Pipeline crosses today. Each mode of transport of oil is subject to accidents and failures.

There are 28 NOMA member communities located immediately adjacent to or are divided by CN and CP's main line tracks here in the Northwest. A lesser number are downstream from the crossings of the TransCanada Pipeline.

There is a total population of 165,294 people who live in those communities. Over and above those numbers are the people who live in a number of First Nation Reserves and in the townships without municipal organization who also either straddles the tracks, live beside them or downstream from the watercourses that wind their way through the region.

The vast majority of the population of the Northwest are exposed on a daily basis to the hundreds of rail cars carrying some form of fossil fuel beside their homes and businesses. These cars travel within 100 feet of residential and institutional neighbourhoods. As we all have seen in the last year, rail accidents involving a cargo of

fossil fuel can have devastating results – with significant loss of life. We must be as concerned with the health and safety of our residents as we are of the natural environment!

As municipal leaders it is our responsibility to do what we can to minimize the dangers to our residents and the people who visit and/or work in our communities.

We do this every day as we identify risks to the people in our community and determine the best way to protect them within the resources we have available. Whether it is how best to maintain our streets during the winter months, or to keep our swimming pools safe for the users or protect our drinking water from external contamination, municipalities are on the front line when it comes to making decisions affecting our families.

Shipping crude oil by pipeline has been clearly identified as a much safer way of transporting such a commodity than by rail car or truck. According to Natural Resources Canada

> "In Canada, the NEB regulates over 73,000 kilometres of pipelines that move approximately 1.3 billion barrels of oil per year. According to the NEB, these pipelines spilled an average of about 883 barrels per year between 2011 and 2013. This means that 99.999% of the crude oil and petroleum product transported on federally regulated pipelines arrives safely. Furthermore, 100% of any liquids released over this period was completely recovered."[1]

News reports suggest that the amount of crude that Canadian Pacific transports has doubled in the past few years and is expected to increase again to somewhere in the range of 300,000 tanker cars a year.[2]

Separate news reports indicate that CN's shipments will grow from 130,000 in recent years to 200,000 in 2015 and an additional 100,000 cars a year by 2017.[3] That means that majority of the 600,000 tanker cars will be travelling through our communities.

At the same time the current use of rail for this commodity means that there is less capacity for other significant commodities such as grain, which is extremely important to the economy of Northwestern Ontario, the Seaway and the Prairies.

For these reasons the Northwestern Ontario Municipal Association supports the conversion of the natural gas line to transport crude oil. This position was adopted at the 2014 Annual General Meeting held in April in Fort Frances.[4]

[1] Government of Canada http://www.nrcan.gc.ca/energy/infrastructure/5893#h-3-1

[2] Kristine Owram | November 12, 2014 Financial Post

[3] Ross Marowits, The Canadian Press Published Tuesday, January 6

[4] Resolution attached as Appendix A

General Observations

Let us now turn to the actual conversion itself.

NOMA has been pleased to confirm from TransCanada Pipelines that 100% of the existing natural gas pipeline is located below grade – that is it is buried. The only above ground pipe will be within the pump station sites, valve station sites, metering facilities and tank facilities.

From our perspective that situation significantly reduces the threat to the environment, either through the failure of the pipe or through external human activities.

We are also pleased to learn that TransCanada is committed to the following improvements:

- TransCanada utilizes a state-of-the-art leak detection system which can isolate any section of pipe by remotely closing valves and shutting down pump stations.
    - These valves will be installed on both sides of significant water crossings to immediately isolate the section of pipe in the unlikely event of a leak.
- This system and the highly trained staff that monitor it 24 hours a day ensure that the pipeline will be shut down at the first sign of a potential problem.
- Frequent visual inspection of the pipeline route by TransCanada personnel
- Aerial inspections by TransCanada and industry partners

NOMA believes that these aforementioned improvements need verification as the planning and implementation process proceeds. We encourage the OEB to recommend to the National Energy Board key strategies for the confirmation and monitoring of these commitments by TransCanada Pipelines.

NOMA also understands that the nature of the fuel to be carried on the converted natural gas pipeline does not have the same volatility as the contents of the rail cars that caused the explosion at Lac-Mégantic**.** Never the less, in order to ensure that the safety of the transportation of that commodity is minimised it is important that there be a reduction in the movement of all commodities by rail.

In the past year, as a result of the bumper grain crop on the Prairies and the decision by the Government of Canada to institute financial penalties for rail companies who are unable to deliver grain in a timely manner, rail traffic through our towns has increased considerably. With every increase in traffic, the potential for accidents continues to rise.

The shift of a part of the rail traffic to pipeline will reduce the potential for accidents involving all cargo – especially hazardous goods such as volatile petroleum products.

The volume of crude oil being proposed to be transported by pipeline (1.1 million barrels) is equivalent to 4400 truckloads on our highway each and every day or 1,571 rail tank cars over that same 24 hour period.

Northwestern Ontario believes that it is important to reduce the risk to our communities and our neighbourhoods by finding the right method of transporting substances through or adjacent to our communities in a way that minimizes risk to the environment and our residents.

2) The Protection Of The Natural Environment & Our Citizens

a) Pipeline Integrity

Members of NOMA attended the second series of public consultation sessions hosted by the Ontario Energy Board in Kenora and Thunder Bay earlier this month. We have reviewed the two summary documents[5] distributed at those sessions and available on the OEB's web site. We appreciate the work done for the OEB in examining the extensive documentation submitted by TransCanada and in sharing the assessment with the public. This is an important step given that the citizens of Northwestern Ontario do not have a history of involvement in NEB applications and processes.

A key item that was identified in the OEB sponsored analysis was the existence of 4 sections of the line totalling 99 kilometers in length that

> "are coated with polyethylene tap and would not meet TransCanada's current coating specifications for [a] new pipeline, nor would those sections represent the highest technical standard for coatings. The tape-coated sections are more susceptible to external corrosion and the environmentally assisted cracking phenomenon of stress corrosion cracking."[6]

The OEB paper recommended that the four sections be "hydrostatically tested prior to operation to verify the findings from the planned crack detection in-line inspections."[7]

NOMA notes that in the DNV GL paper on pipeline safety that

> "There are existing ILI technologies than can reliably detect and size corrosion, and thus this threat can be effectively managed."[8]

The paper goes on to say that

> "While there are also ILI technologies that can detect and size cracks on pipelines, these technologies in certain circumstances have been shown to be less reliable than those used for corrosion. Accordingly, the primary integrity-related issue for the Energy East pipeline in Ontario is the potential for stress corrosion cracking on tape-coated sections.[9]

[5] Attached as Appendix B and C
[6] Pipeline Safety Document, Ontario Energy Board, prepared by DNV GL
[7] IBID
[8] IBID
[9] Pipeline Safety Document, Ontario Energy Board, prepared by DNV GL

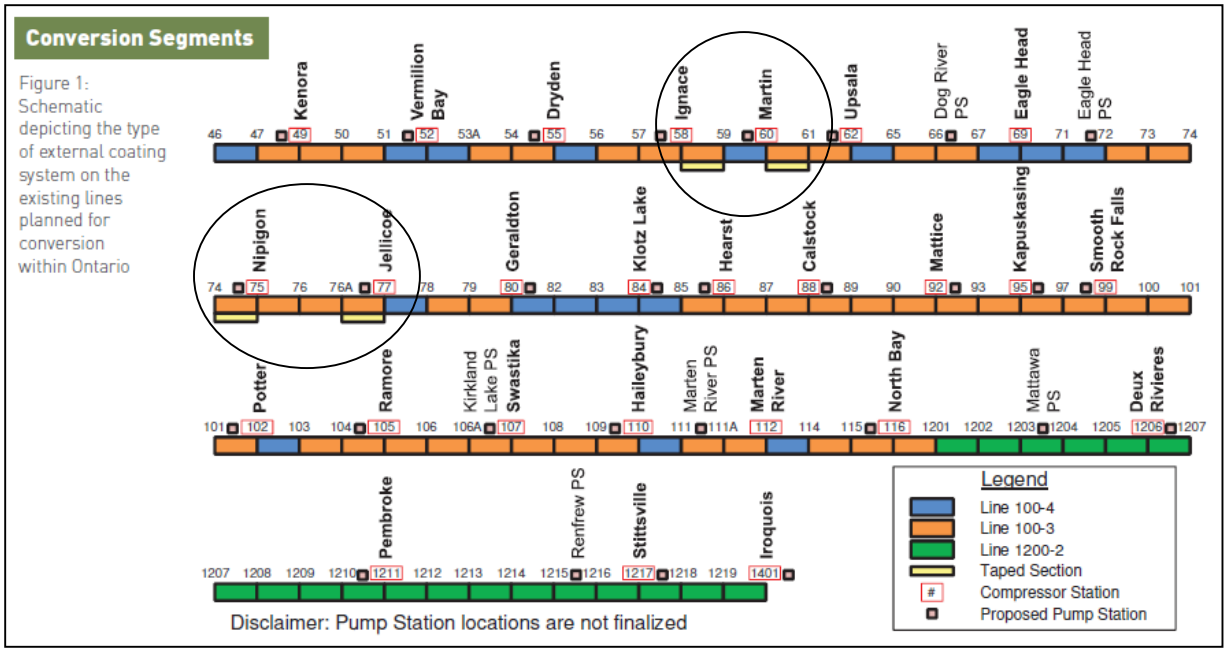

Figure 1 DNV GL Pipeline Safety Paper prepared for the OEB

NOMA requests that the Ontario Energy Board recommend to the NEB that prior to the completion of the hearings into the Energy East Application that the testing noted above be completed and the results reported to the NEB for consideration in arriving at a decision on the application.

Secondly, NOMA requests that the Ontario Energy Board recommend to the NEB that should the application be approved, and should the taped sections be found to meet the safety requirements of the NEB that the NEB require that TransCanada continue to conduct hydrostatically testing on the taped sections of the line on an annual basis.

b) Significant Water Crossings

A key area of concern across the Northwest from all sectors is the definition of a 'significant water crossing.' Nowhere in the Energy East documentation is there currently a definition that will assist residents in determining what may be at risk in the event of a failure of the line.

The Northwest is a vast area of the Province of Ontario. It is literally five times the size of southern Ontario and is larger than many European countries combined. It also consists of a massive amount of surface water and wet lands. Our watercourses range from meandering rivers and streams to rushing white water channels. Historically much of our hydroelectric power has come from the damming of these key watercourses signifying the power and speed of the water.

When one looks at the Northwest from a high level, as is shown on the Ontario Road maps you get the impression of a few major watercourses and a lot of bush.

Figure 2 Northwestern Ontario

However when one looks closely a lot more water quickly becomes visible as is shown in TransCanada's map of the Greenstone section of the existing pipeline, and a lot of it is immediately adjacent (and downstream) from the line.

Figure 3 Lakes and Watercourses in Greenstone

We also, on average have experienced high water levels every four years since 1996.[10]

Many of our communities derive their potable water, either directly from a nearby river, stream or lake or indirectly via groundwater that is fed by those same watercourses.

As well our residents rely on those watercourses for their recreation – cottages, fishing (both summer and winter), swimming, canoeing and kayaking.

We do not take lightly the potential for contamination of any of these watercourses. Our residents have suffered because of mercury contamination along the English Wabigoon River System through industrial discharge over 4 decades ago. The impact of that contamination continues today.

[10] Source: Ontario Power Authority

It is essential that before the National Energy Board approves the conversion that it is clear to all concerned what the definition of a 'significant water crossing' will be applied to this project and whether that is acceptable to the residents of Northwestern Ontario.

The width of a watercourse cannot be the only measure to use in defining 'significant'. What's downstream from the pipeline crossing is as important as the width. The volume of the water, and therefore its capacity for carrying crude, is also extremely important. The speed of the water flow will also have a bearing on how fast a spill can be transported. What the water course is used for – from drinking to fish habitat are also important considerations. These and other variables must form part of the definition of 'significant.'

At last year's OEB session in Thunder Bay, NOMA asked that the OEB

> "Recommend that, irrespective of the role of the National Energy Board, TransCanada Pipeline conduct a consultation with the communities in the Northwest to assist them in defining what they mean by a "significant water crossing" so that when they do seek final approval from the National Energy Board it is done with a comfort level here in the Northwest."

We are now of the opinion that we would prefer that an independent third party conduct such a consultation. That way the region can be assured as to the process and the final product.

To this end, Common Voice Northwest, an independent not-for-profit organization has submitted an application to the National Energy Board for funding to conduct such a consultation process with the results submitted directly to the National Energy Board

As a result in the change in procedures before the NEB, Common Voice Northwest has been asked to resubmit their application and will do so before the February 23 deadline.

NOMA requests that the Ontario Energy Board recommend to the NEB that the Energy East Application not proceed to a hearing until TransCanada has published their definition of a 'significant' water crossing, and

And further NOMA requests that the Ontario Energy Board recommend to the NEB that the Energy East Application not be approved unless there is a clear definition of a 'significant' water crossing approved by the NEB following further consultation by the NEB with the residents of Northwestern Ontario.

And further NOMA requests that the Ontario Energy Board recommend to the NEB that the Common Voice Northwest application for funding under the Participant Funding program be approved in order that an independent community consultation on the definition of a significant water crossing can be carried out across Northwestern Ontario.

c) Shutoff Procedures

DNV GL's Pipeline Safety paper includes the following statement:

> "Valve type and placement are critical in determining the volume of product released as a result of a pipeline rupture. In its application, TransCanada states that mainline valves will be installed to allow sections of the pipeline to be isolated in a controlled manner for normal operation and maintenance activities, or to minimize the effects of an accidental release. Valve assemblies will be specifically positioned to protect significant water crossings and limit the worst case discharge volume. All mainline valves will be remotely controlled and monitored [with the exception of check valves at certain river crossings, which automatically prevent backflow in the event of a failure.]"[11]

NOMA assumes that these backflow check valves will prevent crude oil on the downstream side of any break at a river crossing from spilling back up the line into the breach and welcomes that provision.

NOMA requests that the Ontario Energy Board recommend to the NEB that the Energy East Application not proceed to a hearing until TransCanada has identified all of the locations of the backflow valves and that information has formed part of public consultation led by the NEB in and for Northwestern Ontario,

And further NOMA requests that the Ontario Energy Board recommend to the NEB that the Energy East Application not be approved unless there has been a clear determination of the location and functionality of the backflow valves to the satisfaction of the NEB and that the installation and maintenance of the backflow valves be a condition on any approval of the Energy East application.

As referenced earlier

> "TransCanada states that mainline valves will be installed to allow sections of the pipeline to be isolated in a controlled manner ....to minimize the effects of an accidental release."[12]

NOMA does not yet have a level of comfort that TransCanada will be able to act quickly enough to close a valve located ahead of a leak or rupture. At the same time it does not have the expertise to recommend how best to deal with such a situation. That being said, NOMA wonders if there is a form of backflow valve that can be installed ahead of the watercourse that will automatically close off the line should there be a drop in pressure.

NOMA requests that the Ontario Energy Board conduct its own research into the nature of the valves available to the pipeline industry to determine which valve or other devices will ensure that in the event of any leak or rupture at a significant

[11] Pipeline Safety Document, Ontario Energy Board, prepared by DNV GL
[12] Pipeline Safety Document, Ontario Energy Board, prepared by DNV GL

water crossing (or other sensitive location) that the contents of the pipeline is immediately brought to a halt,

And further NOMA requests that the Ontario Energy Board inform the NEB of their findings,

And further NOMA requests that the Ontario Energy Board recommend to the NEB that the Energy East Application not be approved unless the highest form of immediate shut off technology is deployed adjacent to all water crossings and sensitive areas.

d) Emergency Response Capabilities

NOMA recognizes that in spite of all efforts to the contrary, a spill or spills are likely to occur over the life of the project. It is essential that the tools and people be in place to respond in a timely manner regardless of the location of the breach.

NOMA has reviewed TransCanada's document: The New Regime in Pipeline Emergency Response Planning, Niki Affleck dated Sept. 24, 2014. The document[13] includes a reiteration of the requirements of the National Energy Board related to Emergency Response Planning:

> "The National Energy Board (NEB) requires pipeline operators to: anticipate, prevent, manage and mitigate conditions that could adversely affect property, the environment or the safety of workers or the public.
>
> The NEB requires that companies design management systems for:
>
> - Emergency Management (including continuing education)
> - Safety
> - Environmental Protection
> - Security Management
> - Integrity
>
> The NEB requires companies minimize impacts and compensate affected parties in the event of an emergency."

TransCanada has laid out the general principals they will follow in engaging the communities in the area the pipeline traverses.

> "We prepare by developing and delivering:
>
> - Comprehensive Emergency Response Plans in consultation with communities

[13] See Appendix D attached

- Training with our response partners
- Internal and external response resource capabilities to a worst case scenario “

NOMA welcomes the commitment by TransCanada for a partnering process with the communities and the First Responders but wants to be assured that Emergency Response Plans are clearly documented and required as part of the NEB approval process.

NOMA requests that the Ontario Energy Board recommend to the NEB that the Energy East Application not be approved unless there has been a formal Emergency Response Plan filed with the NEB, and that such plan identifies each community and/or partner along the pipeline who will participate in an emergency response and the details of such plan, and that the NEB approve such plans.

3) Who Pays

NOMA understands that there has been some public discussion regarding who will pay the cost of all of the elements of the Energy East Project. Without getting into the details, it is the opinion of the Northwestern Ontario Municipal Association that if new pipelines are required to replace the existing natural gas line that is being converted to carry crude oil, then those new lines should be paid for by the Energy East proponent and not by the rate payers who utilize natural gas.

NOMA requests that the Ontario Energy Board recommend to the NEB that the Energy East Application not be approved unless the costs of implementation are borne entirely by TransCanada.

The second cost issue is that of ensuring that sufficient funds are available for external parties to clean up and remediate after a pipeline breach and spill in the event that TransCanada fails to adequately complete a cleanup. TransCanada should be required to post a bond with a value of $500 million that can be drawn down by the Federal Government in order to pay for additional cleanup and remediation.

NOMA requests that the Ontario Energy Board recommend to the NEB that the Energy East Application not be approved unless a $500 million bond is deposited with the NEB.

Conclusion

We recognize that TransCanada Pipeline has yet to file all of its documents with the National Energy Board in support of its application. We also recognize that the NEB has yet to call for interventions into the application. When it does, NOMA will request intervener status in order to make sure that should the conversion be approved that the maximum protection for our citizens and our natural environment will be a requirement of the NEB.

We thank the Ontario Energy Board for the opportunity to make our views known in this forum.