## Karen,

I have reviewed the Terry Beech presentation to the Trans Mountain Ministerial Review. I think the key elements, with which I agree, are that:

1. The NEB process is seriously deficient, and tends to favour industry positions that are based on questionable math and fundamentally designed to maximize profit for the proponent, and that there is little to no pressure for the "... project advocates to choose the best technologies available to reduce environmental impacts." A corollary of that is his stated concern that the process might in fact disadvantage smaller companies who have better ideas. In particular, he states:

"When making a 60 year (sic – should be 60-year) decision it seems prudent that these types of projects should be evaluated in the context of their viable alternative." (p.11)

He goes on to make very good points that the cited economic benefits are seldom unique to the proponent approach.

2. I think the overall basis of costing and projections need include both the above position and also fully factor in the economic and environmental risks. Past experience clearly shows that the costs for failure of pipelines and similar infrastructure are, to a large extent, borne by the community and the government. This applies to some of the direct costs, and does not even consider the potentially huge costs in property values, loss of livelihood, and long-term economic damage to a community that goes through this type of event.

Cf: <a href="https://www.nrdc.org/media/2016/160720">https://www.nrdc.org/media/2016/160720</a> <a href="https://insideclimatenews.org/news/20072016/enbridge-saga-end-department-justice-fine-epa-kalamazoo-river-michigan-dilbit-spill">https://insideclimatenews.org/news/20072016/enbridge-saga-end-department-justice-fine-epa-kalamazoo-river-michigan-dilbit-spill</a>

- 3. Clearly, as I have stated before and frequently, the clear alternative that would be in the National Interest would be: "Refining the products prior to reaching tidewater." Second best would be "Alternative transportation methods", although I will put caveats on that later. His other three alternatives on p. 12, while meeting his objective of protecting his constituents, just push the problem out onto someone else.
- 4. The idea that the economics of the proposal can be hidden behind a "... proprietary linear program ..." is offensive in the extreme, and simply should not be allowed. This is similar to the oil companies themselves refusing to provide a formulation for Dilbit based on the idea it is a "trade secret". As someone who (1) has been in business for himself for over 30 years; (2) has a keen interest in and understanding of IP protection; I would argue that both of these positions are simply not defensible, and should not be allowed in any regulatory process. The honourable member is most certainly correct in his assessment of the methodological flaws (p.13).
- 5. Something he has not addressed, that I can find, is the fact that Canada has the lowest royalty structure of any major oil producing nation. The Senior Trudeau tried to address that in part, but his work was undone by subsequent (primarily Conservative) governments.

- 6. There is little doubt that a catastrophic spill could easily exceed liability coverage, and one knows the taxpayer ultimately picks up the bill. The proponent might not even be in the picture, with acquisitions and bankruptcy being two routes that allow companies to escape their liabilities.
- 7. I am not encouraged by what I see as a weakening of resolve on the part of some members of the Government side of the house to really meet our climate targets, and I most certainly would support MP Beech in his call for a comprehensive strategy for resource development. My take on this whole issue is perhaps most clearly described in my blog:

https://rabellblog.com/2015/10/23/alchemy-a-key-to-fixing-canadas-debt-problem/

8. I do have to admit that on the subject of "carbon pricing", I am not a huge enthusiast. I am simply not convinced, on the strength of what I have read, that this is any kind of panacea. Among other things, it will ultimately transfer the burden to the end user, who has very limited control over his or her choices. Much like VAT, it is another form of tax which, as a proportion of income, dis-proportionally impacts the lower and middle classes. Changing the royalty structure at the top end to ensure the government has the working capital, and leaving the private sector to fight out the product pricing in a competitive market place, would, in my opinion, be a far more beneficial approach.

Turning attention to the second report, "Trans Mountain Expansion: Economic report for BC Caucus", I see many of the same themes appearing.

- 1. One of the things that I find annoying about most of these projects are the blather around construction jobs in the absence of discussion of other alternatives, something the MP mentioned in his other paper. If pipeline construction costs "X" and generates "Y-person-years" of employment in the operation phase, what would be the similar "X" and "Y" values for an alternative approach such as refine in Alberta? These economic numbers are valueless unless in a context of alternatives. This is further impacted by the differentiation of job value. One could further argue that for a government seeking other infrastructure improvements, this short term disruption of the construction labour market will actually drive up government infrastructure costs for other projects.
- 2. In discussing the fiscal benefits, there is an implicit assumption that \$18.5 Billion is somehow magically benefiting "British Columbians" and "Albertans". I would argue that rather it may well serve to further increase inequity, whereby "...those who has, gets." The implication that somehow this flows to ordinary BC and AB'ers ranks right up there with Reagan's trickle down as one of the persistent right wing myths.
- 3. That the Bjarnason report, along with the other 11 reports from the City of Vancouver "...were not considered by the NEB" is bordering on criminal. Are the members of NEB subject to fiduciary duty regulations? Can they individually be held to account, as the board member of a corporation can be?
- 4. Robyn Allan's report could be Robert Allans, if you judge by my blog. However, she does not really deal with the Dilbit issues adequately, at least not in this summary. When my LinkedIn group, Scientists Concerned and Informed on the Environment Speak Out (SCIESO) intervened in the Northern Gateway plebiscite, we focused on Dilbit. I have attached a copy of that letter.

- 5. Finally, the one issue no one has dealth with is shipping UNDILUTED bitumen by rail. This might well require additional rail infrastructure, but improving rail infrastructure would benefit a wide range of importing and exporting businesses, rather than being single use. There are a couple of issues here.
  - a) Moving undiluted bitumen reduces the volume of product moved by about 30%.
  - b) Moving undiluted bitumen means no reliance on imported (and cancer causing) diluent from places like Saudi Arabia.
  - c) Diluent does not have to be shipped back to Alberta a return trip that is often totally ignored in environmental and safety discussions. The oil companies don't talk about this.
  - d) A couple of smaller companies are now talking about shipping UNDILUTED by train to BC to have value add there. That would be a big improvement, BUT:
    - They would use "heated" tank cars, which means more rail infrastructure and locking into that paradigm.
    - Heating takes more energy, when we are trying to save energy. I can't imagine what would be needed to keep the stuff warm in an Alberta winter.

What I tried to have a discussion on some time back was an alternative way to move undiluted bitumen – cold – with existing infrastructure (rail cars) or dual-use rail cars. I have not put this out into the public domain because someone like the Koch brothers could rush to patent it. I would like to see the GOC patent the idea, and then make it available to any and all shippers, so that it cannot be monopolized. I tried to make contact with the Minister for Science and Technology, but nobody was home, or at least answering the doorbell, to speak figuratively. Cost to GOC would be somewhere between trivial and negligible. You just have to do it.

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