



Date: January 2, 2017

Sharon Wong
Regulatory Officer
National Energy Board
Suite 210, 517 Tenth Avenue
SW Calgary (Alberta) T2R 0A8

Dear Ms. Wong.

RE: A80312 Woodfibre LNG Export Pte. Ltd. application for 40-year export license

My Sea to Sky is a Society, founded in Squamish, B.C. in March 2014 to address all issues pertaining to the Woodfibre LNG project and its short and long-term effects on our community, not only in Squamish but also throughout the Howe Sound region. We have 10,000 supporters who, for many reasons, are opposed to the Woodfibre LNG project. Some of these fall outside of the NEB mandate but will be noted below.

On behalf of our community, we respectfully request that the National Energy Board not approve a 40-year LNG export license to Woodfibre LNG Export Pte. Ltd., a Singapore registered company. We would like this letter to serve as our public comment as part of the NEB process. Some of our reasons for opposing the granting of this license extension are as follows:

Canada's Energy self-sufficiency will be threatened.

The NEB has received 40-year LNG export license applications for 4 projects in BC and has already approved 3 of them. Total approved projects combined would export 295 million tonnes per annum amount of NG from a proven reserve of less than 1,300 million tonnes. This level of exports will virtually ensure that Canada will not have surplus energy and will become a net importer of NG within 5 years. That is entirely inconsistent with NEB's statutory obligation to ensure Canada's energy self-sufficiency¹.

Woodfibre LNG Exports 40-year export license application states that they have "determined that a 40-year export license would strengthen the global competitiveness of WLNG's Exports project".² This opinion is without merit as Woodfibre LNG has been given ample opportunity to be globally competitive through generous tax breaks awarded the LNG industry by the Canadian and BC Governments. These include: a low, locked-in LNG royalty tax rate of 3.5% of net income, and that only after full amortization of capital costs; an 18 month grace period before carbon taxes apply, 30% accelerated capital cost allowance for LNG facilities, an "e-Drive" electricity rate subsidy estimated at \$34million annually; \$1.7 million/yr from BC Hydro for IPP power (at double the average rate to other IPPs) and \$540,000/yr selling unused carbon credits.³

¹ Under section 118 of the NEB Act, NEB is required to assess whether the natural gas proposed to be exported does not exceed the surplus remaining after due allowance has been made for the reasonably foreseeable requirements for use in Canada, having regard to trends in the discovery of natural gas in Canada.

² Woodfibre LNG Export Pte. Ltd. 40 year Export License Application, point C 11, page 4 Of 14

³ <https://thetyee.ca/Opinion/2016/11/10/BC-LNG-Fraud/>



In reviewing the 3 previously awarded 40-year export licenses, there are some common threads as to why NEB has consistently approved these applications, including:

1. It accepts biased estimates of the amount of recoverable NG by proponents' consultants e.g. Navigant Consulting's report for LNG Canada, the LNG Canada report by Gordon Pickering and the Priddle reports submitted by Woodfibre and Pacific NW LNG;
2. It assumes that not all approved LNG liquefaction ventures will be built (though these decisions are totally outside NEB's control); and
3. It assumes that the existing flow of natural gas throughout North America will be maintained and therefore an ample supply will be available for Canadians.

A major gas supply concern we have is supported by credible reports dealing with recoverable gas reserves and actual supply are not considered, creating a potential Energy Security dilemma for Canadians. David Hughes, a renowned Geoscientist, states in his report:

"If the NEB LNG exports are included (which would meet the needs of just one large LNG export terminal), Canada would become a net natural gas importer - by 2017 in the low case and by 2020 in the reference case. In the high and reference cases, Canada has 30.9 tcf and 0.7 tcf available for additional exports, respectively, over the period from 2016 to 2035. In the low case, Canada would need to import 33 tcf of gas by 2035 to meet its own requirements and the NEB's assumed LNG exports.

To put this in perspective, the BC government's highest estimate for LNG exports, which assumes the construction of five LNG terminals, would require the production and export of an additional 70 tcf of marketable gas by 2035 over and above the NEB's assumed exports. If the NEB's production forecasts were to prove accurate, this would see Canada importing between 39 and 103 tcf of gas by 2035 (depending on which NEB case is used) in order to meet this level of LNG exports (70 tcf of imports, which would be the reference case requirement, is equivalent to roughly 13 years of current Canadian production)."⁴

- NEB is gambling that not all the awarded LNG projects will come to fruition. A conservative approach would look like only awarding a 40-year license once the facility is up and running to ensure that surplus supply at reasonable rates are available for domestic consumption. The "40-year award" should not be granted solely for proponents to be "globally competitive" as reasoning by Woodfibre LNG requires;
- NEB is depending on a stable trade relationship for supply between the US and Canada. With a new President in the U.S., this position looks risky. President-elect Trump made his comments very clear in the election where he stands in regards to NAFTA⁵. NEB's mandate is to ensure surplus supply for Canada yet part of the plan is that NG can be imported from the U.S. if necessary. This puts Canadians once again in a precarious position as we become a net importer at market prices; and
- NEB has authorized NG exports of over 295 million tonnes/annum. However, the entire global demand is about 240 million tonnes per annum, and has been at that level for the past 4 years.

One of the stated reasons why NEB approved LNG Canada's application was that

<http://commonsensecanadian.ca/harper-slashes-federal-taxes-bc-lng-industry/>

⁴ https://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2015/05/CCPA-BC-Clear-Look-LNG-final_0_0.pdf

⁵ <http://www.reuters.com/article/us-usa-election-idUSKCN0ZE0Z0>



“ both the Canadian and the North American natural gas markets are characterized by ample, stable supplies and competitive, stable prices”.

Given the huge range of both LNG and NG (Henry Hub) prices over the past 10 years, this is an incredible statement. Granting further export licenses will only exacerbate that volatility. To create obligations on a finite non-renewable resource restricts future governments ability to make decisions that would better serve Canadians. NEB’s own forecasts indicate that even if BC’s NG production more than doubles, one LNG terminal would use all Canadian export capacity by 2040. Developing 3-5 LNG export terminals would make Canada a major net importer of gas.

“The B.C. Government’s claim of 2,900+ trillion cubic feet of “marketable gas reserves” conflates “in-place resources” with “ recoverable resources”. Remaining “marketable resources” are 435 tcf and proven raw gas reserves are 51 tcf according to the B.C. Oil and Gas Commission and the NEB” , according to David Hughes, Geo-Scientist.⁶

We need flexibility in our energy policies to ensure Canadians have the most sustainable, renewable, energy options available. By approving a 40-year license to export, we lose this flexibility, unnecessarily and Canadians are left paying more for imported NG. Canada has finite gas reserves and is a cold country – we urge NEB to do the simple math!

Extending fossil-fuel facilities is inconsistent with Canada’s COP21 Commitments

In Paris, Canada committed to do its part to limit global warming to less than 2⁰C and to take actions to reduce GHG’s 30% by 2030. These commitments must be considered by NEB when issuing 40 year licenses, as approvals will seriously impede Canada’s ability to meet these obligations, further eroding Canada’s reputation as a country that takes climate change seriously. "We're going to take practical action to tackle climate change, to grow our economy," Minister McKenna said outside the Commons. "And it's about the future of our kids and grandkids."⁷ The NEB must action these commitments.

Other countries have experienced ill effects of expanding LNG export facilities

My Sea to Sky has been researching the affects that LNG exportation industries have on Countries. BC has huge domestic energy needs due to where its distance from the Equator. It is cold for most parts of the year. A rise in energy costs puts a substantial burden on low to middle income families.

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David Hughes: “A clear look at BC LNG”-

https://www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2015/05/CCPA-BC-Clear-Look-LNG-final_0_0.pdf

Canada’s long-term energy security may be compromised by LNG export plans:

- The National Energy Board has a duty (outlined in Section 118 of the NEB Act) to ensure Canadian domestic supplies are met before approving exports, but is failing to do so. Including U.S. reserves in decisions affecting Canadian energy self-sufficiency is a convenient, but totally specious, argument presumptive of several factors totally outside Canada’s control, not least of which is the continuation of the NAFTA agreement.
- The NEB has, to date, approved 12 terminals with a total capacity of 251 trillion cubic feet (tcf) of LNG exports over 20-25 years. However, the NEB’s own modeling shows that only a small percentage of that amount — 18 tcf — is available for export, even with a three-fold ramp-up in BC production.
- Medium to high levels of LNG exports from BC would require Canada to become a net importer of natural gas, simply to meet domestic needs.

⁷ <http://www.nationalobserver.com/2016/10/05/news/canada-officially-ratifies-historic-paris-climate-agreement>



We have especially seen the impact of the LNG export industry in Australia, who have some of the largest gas resources in the world, yet the NG price to Australians and their businesses have soared.⁸

Based on the amount of LNG export projects that have been approved to move forward, there is a huge risk of creating the same scenario that Australia now finds itself in whereby Energy Suppliers are at risk of not meeting contract obligations and are looking at importing NG to fulfil them.⁹

These issues would have enormous impacts on Canadians and Canadian manufacturers.

On a local level, this extended license would, if granted, significantly impact us in the following areas:

Negative Economic impact

The Sea to Sky Corridor has developed into an area that has strong, vibrant, growing communities.¹⁰ A Recreational Technology business community has settled into Squamish attracted there by the natural beauty and unparalleled opportunities for outdoor recreation. Media attention has helped create Squamish as a Tourist Destination, helped by the Sea to Sky Gondola, a local employer of 250 people.¹¹ Statistics inform us that over 2.1 million visitors annually visit the Sea-to-Sky corridor and spend \$1.3 billion in revenue in various businesses through the Howe Sound-Whistler region.

Very visible from the highway connecting Vancouver to Whistler, Woodfibre LNG project would have a negative impact on tourism and the recreation economy. With the amount of greenhouse gases (GHG's -+150,000 tonnes/yr in direct emissions) that will be pumped into our air shed from this project for potentially 40 years, on top of other existing industry and potentially new industry, our air quality will deteriorate, negatively impacting our Tourism industry and creating adverse health impacts due to particulate pollutants. These health costs will be borne by the services provided by local Municipalities.

Squamish is one of the fastest growing communities in Canada with median age of 35-39 years of age and are to be considered at risk to be affected by these higher costs of living.¹² With less money available to the average citizen for basic needs, community services become overburdened with filling in the gaps.

Negative effects on the Marine life of Howe Sound

The marine life of Howe Sound will also be greatly affected by the Sea Water Cooling system proposed for this facility. Once-through seawater cooling has been banned in California, New York and elsewhere, due to the environmental and marine life degradation. The waters throughout Howe Sound are now

⁸ <http://www.abc.net.au/news/2016-08-01/gas-prices-higher-in-australia-than-in-export-destinations/7680106>

⁹ <http://www.abc.net.au/news/2016-11-24/having-spent-200b-to-export-lng-is-australia-about-to-import/8055164>

¹⁰ <http://www.britishcolumbia.ca/invest/communities/british-columbia/lower-mainland-southwest/squamish-lillooet/squamish/>

¹¹ <http://www.cbc.ca/news/canada/british-columbia/squamish-makes-new-york-times-list-of-52-places-to-go-in-2015-1.2897649>
<http://www.piquenewsmagazine.com/whistler/cnn-declares-squamish-the-mountain-town-to-visit-this-summer/Content?oid=2557147>
<http://www.blacktuskrealty.com/market-news/squamish-in-the-news/>
https://www.tripadvisor.ca/ShowUserReviews-g154922-d155556-r125147969-Sea_to_Sky_Highway-British_Columbia.html

¹² <http://www.britishcolumbia.ca/invest/communities/british-columbia/lower-mainland-southwest/squamish-lillooet/squamish/>



teeming with life. With the recent return of the herring, salmon have followed and brought with them dolphins, orcas and Humpback whales. People flock to this natural environment and, through social media, have shared the “Supernatural” beauty that BC has marketed itself for years. Sports fishing, commercial fishing and whale watching have all returned since the Pulp and Paper industry at the Woodfibre site shut down in 2005-6. The Howe Sound community has lived through this industrial degradation scenario once before and does not want to see it happen again.

40-year Cumulative impacts on Howe Sound have not been considered

Cumulative impacts are not being considered. The 2015-2016 Environmental Assessment examined (though in scant detail) some aspects of the environmental impact of Woodfibre LNG over its proposed 25-year expected lifetime. Extending those impacts to 40 years creates a 60% increase in Cumulative Impacts, and has not been estimated at all. It should be. However, we fear that, as has happened with the LNG Canada and WCC extensions, granting Woodfibre’s application will not trigger an environmental review of these significant cumulative impacts.

Lack of jobs and potential low property tax for LNG businesses negatively affect ratepayers.

Woodfibre LNG is situated on prime land that Communities depend on for industrial property taxes and for industry that provides numerous jobs for the communities along Howe Sound.

The Woodfibre LNG project removes the opportunity for that land to truly provide economic benefit as it only has 100 full time jobs and due to the nature of this industry means that the number of jobs available will never grow. With Woodfibre LNG paying potentially very low property tax rates versus other industry, this directly affects the Municipalities ability to finance much needed infrastructure and services in the future due to growth in population.¹³

The future value of that land due to its proximity to Vancouver and long-term impacts need to be considered as it will affect two generations of peoples in this area.

Public Safety will be further threatened

Howe Sound is a narrow fjord and culminates at the headwaters of Squamish River. The area is known for its strong winds and huge (15’) tides. Squamish has experienced a significant oil spill due to these natural factors.¹⁴

SIGTTO, the LNG industry’s Standards of Operations, strongly recommends against siting a facility in close proximity to human populations and having LNG tankers traverse significant commercial, recreational and ferry marine traffic.¹⁵ Based on modeling performed by Sandia National Laboratories for the US government, populated areas within Howe Sound already fall into hazard zones that, were there to be a significant spill from an LNG tanker, would decimate these communities.¹⁶

Adding 15 more years to Woodfibre’s license increases the hazard for local communities by at least 60%.

Fracking and water usage will continue the pattern of habitat destruction in N.E. BC

¹³ <http://www.squamishchief.com/news/local-news/woodfibre-lng-could-fetch-7m-per-year-in-taxes-1.1986708>

¹⁴ <http://www.theglobeandmail.com/news/national/oil-spill-fouls-waters-of-howe-sound-off-squamish/article1101656/>

¹⁵ <http://www.quoddyloop.com/Ingtss/standards.html>

¹⁶ http://www.lngfacts.org/resources/SANDIA_2008_Report_-_Large_LNG_Vessel_Sa.pdf



Canadians are becoming very averse to horizontal, hydraulic fracking due to the unknown potential long-term effects. According to a recent Environics poll, 62% of Canadians support a moratorium on fracking until all federal reviews are complete and a thorough assessment of its impact can be done.

According to calculations using the model invented by the Pembina Institute, “24 extra wells would need to be drilled per year to support the facility. It would contribute 0.81 million tonnes of carbon pollution per year and use a half million cubic metres of freshwater per year. The figures are based on the \$1.6-billion Woodfibre LNG facility having a capacity of 2.1 million tonnes of LNG per year once it comes online in 2020, according to the Institute.”¹⁷

We urge you to consider these factors when reviewing this application.

Canadians rely on the NEB to provide energy security for Canada. Rejecting a 40-year license for Woodfibre LNG exports would be a step in the right direction showing that the trust we place in our regulatory institutions is not being misplaced or mismanaged.

Sincerely,

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Co-Founder, My Sea To Sky Society
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ccs. via email to: MP Pam Goldsmith-Jones, Mayors and Councils of Squamish, Lions Bay, Bowen, West Vancouver, Vancouver and Gibsons, Regional Districts of Sunshine Coast and Squamish-Lillooet

¹⁷ <http://www.squamishchief.com/news/local-news/pembina-institute-takes-aim-at-woodfibre-lng-1.2301295>