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EGP Public Information Sessions 2020 – Q&A

The following Question and Answer document has been developed from Squamish and Coquitlam information sessions held virtually in 2020 to create COVID-19 safe engagement opportunities. Please note that questions of a similar nature have been consolidated and responses may be paraphrased for the purpose of written consumption. All answers are current as of June 2021.

Pipeline

Q: Can you speak to the flare noise for the Loggers Lane East Neighborhood?

A: There will not be any flaring during the construction (or operation) of the pipeline in this area.

Q: Why was this route chosen? Why were the other proposed routes and compressor locations around Mt. Mulligan and Raven's Plateau removed? What about the pipeline route option from Watts Point or Furry Creek?

A: FortisBC reviewed three alternative pipeline corridors as part of the Environmental Assessment Certificate Application submitted in 2015. The environmental assessment process is an open, public process that examined several factors and identified the pros and cons for each of the alternate pipeline corridors. The Environmental Assessment Office approved the project and the corridor, which encompasses the current project route. In addition, there was a parallel process with the Squamish Nation as part of their environmental assessment of the project.

Information about these reviews can be found on the [BC Environmental Assessment Office website](#), which includes an overview of a range of factors such as environmental considerations; consultation with Indigenous communities, local governments, residents and stakeholders; engineering and constructability studies; timelines; cost considerations and more. The analysis we conducted helped us put forward the best project based on all of these inputs.

The proposed relocation of the Squamish Compressor Station from the approved Mt. Mulligan location to the Woodfibre site is in response to feedback received from the public and other stakeholders.

Q: With all the rural areas in Squamish, why put a gas line down a highly populated area that is only going to increase in density?

A: The pipeline is designed to standards that allow for the continual development of adjacent lands to higher density without requiring modifications to be made to the pipeline. This situation occurs regularly throughout FortisBC's service area where pipelines that were constructed as early as the 1950's now run through neighbourhoods that have been developed and densified.

By following our existing infrastructure and right of way, we are able to limit our footprint in the area and reduce the risk of third party damage by following an established utility corridor.

Furthermore, we undertake a number of activities to keep our system safe. These include activities such as monitoring our transmission system 24-hours a day, 365 days a year; conducting regular inspections; and using highly advanced technology to gather detailed information from within our pipeline systems to monitor gas line condition.

Tunnel

Q: What are the plans for the excavated soil and the discharge of those soils? How will the excavated rock from the TBM be disposed of - especially from the Woodfibre end?

A: Once the excavated material is removed from the tunnel, FortisBC and its contractor will be storing it until suitable uses for the materials are determined. We are working with our Indigenous partners and other businesses from the community to find suitable re-use opportunities for this material. We are also looking for opportunities for re-use within the tunnel. We will keep the public informed as more information becomes available.

Q: Can tunnel boring in soft ground fail, and if the tunneling failed, what would be the impact on the estuary?

A: Throughout project planning, we've taken a number of steps to avoid disturbance to environmentally sensitive areas, including the Skwelwil'em Squamish Estuary Wildlife Management Area (WMA). Our inclusion of a nine-kilometre, underground tunnel that will be constructed 30 metres below the surface of the WMA is designed to do exactly that.

Furthermore, it is a condition of the Squamish Nation Environment Assessment Agreement between FortisBC and Squamish Nation prevents surface disturbance within the WMA.

Should any irregularity occur with the tunnel boring machine, we anticipate the ability of our contractor to repair in place, thus avoiding any disturbance to this sensitive environment.

We are committed to delivering this project in an environmentally responsible manner and will work with our contractor, experts, consultants, Indigenous communities, and local groups every step of the way to achieve this.

Compressor

Q: If the 138 kV line goes down, isn't that a non-issue? The compressor's only customer is WLNG, and WLNG is also dependent on the same hydro line (and has committed to use electricity). So what's the reliability issue given your only customer will be down at the same time as you in the case of power issues?

A: In response to community feedback, FortisBC conducted a review of both electric and natural gas energy sources to power the Squamish Compressor Station.

In order to power electric motor driven (EMD) compressors at the Squamish Compressor Station, FortisBC would require a direct or indirect connection to the BC Hydro 138 kV electrical system.

For a direct connection scenario, FortisBC would require its own 138 kV transmission line, its own substation to convert from 138kV to 25kV (or 13kV), and its own 25kV (or 13kV) distribution lines. FortisBC has established that this is not feasible due to space constraints and due to the challenging topography.

For an indirect connection scenario, FortisBC would receive power from BC Hydro through the Woodfibre LNG power system. Over the past year, FortisBC and Woodfibre LNG worked closely together to assess the feasibility of Woodfibre LNG providing FortisBC with the required electrical supply to facilitate the use of EMD compressors at the Squamish Compressor Station. We determined that electrically connecting the Woodfibre LNG facility and the FortisBC Squamish Compressor Station (to the extent required to operate EMD compressors) would result in a greater number of disturbances to the Woodfibre LNG electrical system.

Our review also showed that using EMD compressors, and the resulting impact on system reliability, would likely lead to the same or increased overall greenhouse gas emissions when compared to a gas-powered source.

For these reasons, FortisBC continues to propose gas turbines for the Squamish Compressor Station. Nevertheless, we will construct the Squamish compressor station so that a conversion from gas turbine compressors to EMD compressors could take place in the future if feasible.

Safety

Q: Did FortisBC know that several residents have started selling their homes on Finch Drive and nearby homes due to concerns about the 24-inch pipeline that is proposed? How would you like a 24-inch pipeline in your backyard FortisBC folks?

A: The safety of the public and our employees has always been, and will continue to be, our top priority. Continual improvement is ingrained into our practices, as well as being mandated by law. As an example, since our first in-line inspections in the 1980's, FortisBC has been successfully adopting newly developed technology as it has become proven and commercialized.

Public interest is further supported by our regulators. The BC Oil & Gas Commission (BC OGC) establishes and enforces the necessary regulations to achieve safety across our system. When designing and operating new gas pipelines, we uphold our excellent safety record by ensuring we meet or exceed BC OGC regulations and applicable standards outlined by the Canadian Standards Association (CSA). We also strictly adhere to an Integrity Management Plan, which includes activities such as monitoring our transmission system 24-hours a day, 365 days a year; conducting regular inspections; and using highly advanced technology to gather detailed information from within our pipeline systems to monitor gas line condition.

Having safely owned and operated natural gas pipelines and associated assets within British Columbia for over 60 years, FortisBC will continue to prioritize safety – from day one of the design and planning process, through to completion and day-to-day operations. This same approach has been used to maintain and operate our infrastructure that passes through Squamish from Coquitlam to Vancouver Island since its original construction 30 years ago.

FortisBC has a strong safety culture, and we take our responsibility in delivering energy to British Columbians very seriously. To provide energy to consumers often means that our operating territory encompasses populated areas, and our practices and standards are developed with this in mind. FortisBC's practices and standards, which meet or exceed stringent regulations, provide confidence to our employees in the safety of our system.

Q: As a resident of the Loggers Lane East neighborhood, I am concerned about our expansion to a Commercial Grade pipe in our neighborhood, with children, a school, a rec centre, etc.

A: The safety of the public and our employees has always been, and will continue to be, our top priority.

When designing and operating new gas pipelines, FortisBC upholds our excellent safety record by ensuring we meet or exceed the regulations set out by the British Columbia Oil & Gas Commission and applicable standards outlined by the Canadian Standards Association (CSA). We also strictly adhere to an Integrity Management Plan, which includes activities such as monitoring our transmission system 24-hours a day, 365 days a year; conducting regular inspections; and using highly advanced technology to gather detailed information from within our pipeline systems to monitor gas line condition.

To provide energy to consumers often means that our operating territory encompasses populated areas, and our practices and standards are developed with this in mind. FortisBC's practices and standards, that meet or exceed stringent regulations, provide confidence to our employees in the safety of our system.

Having safely owned and operated natural gas pipelines and associated assets within British Columbia for over 60 years, FortisBC will continue to prioritize safety – from day one of the design and planning process, through to completion and day-to-day operations. This same approach has been used to maintain and operate our infrastructure that passes through Squamish from Coquitlam to Vancouver Island since its original construction 30 years ago.

Q: If there is an accident, how long will it take for the shut-off valves to turn off the high-pressure gas? Does this comply with the control valve requirements of CSA-Z662-19 for transit of a high-pressure (2160 psi) pipeline through a populated area?

A: In the unlikely event that there is an accident that requires the full shutdown of the pipeline, the mainline valves will take approximately 90 seconds to close from a fully open position. With respect to following the Canadian Standard Association's (CSA) regulations, when designing and operating new gas pipelines, FortisBC ensures to meet or exceed the regulations and applicable standards outlined by the CSA.

Q: Who determines the relative importance of concerns about safety, concerns around disruptions, and Woodfibre LNG's cost concerns? And, what relative level of importance was assigned to each of these and any other concerns?

A: Safety is top of mind in our organization. Our practice is to ensure that our systems meet or exceed the regulations. Any option that we decide to pursue related to the design, construction

and operation of our assets needs to meet that criterion. The BC Utilities and Commission is responsible for the fair and impartial review of each of these related matters.

Q: What is the possible blast radius from the 24-inch high pressure pipeline, in a worst-case scenario accident?

The safety of the public and our employees has always been, and will continue to be, our top priority.

The pipeline and facilities have been designed to mitigate the likelihood of pipeline leakage or failure and to shut down the system if a failure occurs. Section 16.0 of both the EAC Application and the Amendment Application provide a risk assessment of potential effects of accidents or malfunctions associated with the Project and proposed amendments. Section 16.7 of the EAC Application assessed the risk of pipeline break, leakage or failure.

Having safely owned and operated natural gas pipelines and associated assets within British Columbia for over 60 years, FortisBC will continue to prioritize safety – from the first day of the design and planning process, through to completion and day-to-day operations. This same approach has been used to maintain and operate our infrastructure that passes through Squamish from Coquitlam to Vancouver Island since its original construction 30 years ago.

General

Q: Who pays for the EGP? From OIC 147 (2014), looks like Fortis can ding all 5,201 of its Squamish customers with both the capital and operating costs of EGP- though the think would only be built because of WLNG?

A: Woodfibre LNG will pay for all project costs related to serving the proposed Woodfibre LNG facility.

FortisBC will provide service to Woodfibre LNG based on a rate schedule that has been reviewed and approved by the provincial government and the BC Utilities Commission (BCUC) in accordance with the provincial government's Special Direction No. 5.

Q: Will FortisBC be required to pay a bond to cover the cleanup costs of the pipeline when the Woodfibre LNG project inevitably fails?

A: FortisBC owns and manages a vast network of pipelines across the province and is subject to regulation and regulatory oversight primarily through the BCUC. As part of its normal business and as a prudent operator, FortisBC carries all necessary insurance coverage to insure its business operations and the continuity of operations.

Q: How many participants are attending this session today?

A: Each of our public information sessions in 2019 were well-attended and we look forward to hosting more sessions in the future.

Climate

Questions on moving towards a lower-carbon future:

- I) What is FortisBC doing to ensure that it is net zero by 2050?
- II) What is FortisBC doing to move away from fossil fuels, recognizing that in the next ten years domestic demand for your product will decrease?
- III) Why are we focusing these efforts on current infrastructure expansion rather than directing the focus and efforts on moving to low intensity GHG emissions?
- IV) Will FortisBC commit to real climate action, beyond the 30x30 goals that continue to push the lie that natural gas is a climate solution.
- V) When is FortisBC going to become part of the climate solution?

A: We know the world is changing. Today our gas lines supply natural gas to help millions of people across BC heat their homes and businesses, warm their water and cook food. In the future, our gas lines will be used to supply low-emission renewable gases as we work with our customers to reduce their greenhouse gas emissions by 30 per cent by the year 2030. This is our [30BY30 target](#), and it's how we're measuring progress toward our [long term strategy](#) in helping B.C. achieve its 2050 climate targets.

Our goal is to produce 15% of our gas supply with RNG and hydrogen by 2030, and 30% by 2050. In late 2020, we shared an update on our 30BY30 progress which you can read about on our website at [FortisBC.com](#)

Additionally, our Climate Action Partners program offers resources to help local governments, Indigenous communities and other organizations achieve their climate action goals. We also partner with academic institutions, non-profit groups and other organizations working to advance research and climate action initiatives that contribute to BC's transition to a lower carbon future.

Q: You asserted in your answer to the GHG that LNG is reducing GHG emissions by displacing coal, but how are you calculating that this is true? Who is taking the "upstream emissions" in this calculation? Are methane emissions being ignored? How are you accounting for the increase in GHG emissions because higher supply causes higher demand, so even if it is displacing coal, it's ultimately driving up energy use?

A: FortisBC has been providing incentives for businesses to switch to natural gas powered commercial vehicles, freight trucks, waste haulers, buses, off-road trucks, and marine vessels. To date, more than 850 vehicles have switched to CNG or LNG – displacing over 145 million liters annually of diesel consumption to reduce both fuel costs for consumers and emissions.

We are already fueling BC Ferries with LNG and an innovative world-leading fueling method. This reduces carbon, sulfur, particulates, and NOx emissions in the lower mainland while saving fuel costs for BC Ferries. We also believe there is an opportunity to expand to fueling international marine vessels.

FortisBC has taken the first steps in small-scale LNG exports to carbon intensive economies like China. This can help countries across the world transition away from heavy carbon fuels such as coal and make a substantial difference to global GHG profiles.

Upstream emissions are not a requirement of the BC EAO Application process. However, emission sources such as venting (station blowdowns) and equipment leaks are included in the estimated GHG emissions outlined in our application (see Appendix B of the Amendment Application No.1). The Canadian Environmental Assessment Agency (now the Impact Assessment Agency of Canada) completed a Review of Related Upstream GHG Emission Estimates in 2016 for the Woodfibre LNG Project available here <https://www.ceaa.gc.ca/050/documents/p80060/109547E.pdf>.

Q: What air and water emissions will the pipeline produce (quantity, frequency, toxicity)?

A: FortisBC conducted an assessment of potential negative and positive effects of the proposed amendments on the biophysical and socio-economic environment including noise, air, soil and water. See Sections 4, 5, 6 of the Amendment Application.

Q: Isn't it important to contrast LNG to renewables as a coal alternative now that the International Energy Agency has said that renewable energy is now generally cheaper, and faster to deploy?

A: Today our gas lines supply natural gas to help millions of people across BC heat their homes and businesses; in the future, our gas lines will be used to supply low-emission renewable gases as we work with our customers to reduce their greenhouse gas emissions by 30 per cent by the year 2030. This is our [30BY30 target](#), and it's how we're measuring progress toward our [long term strategy](#) in helping B.C. achieve its 2050 climate targets.

In addition to increasing our supply of renewable gases, FortisBC owns and operates 17 Direct Current Fast Charger stations and is pursuing public and private partnerships to further expand the province's charging network. FortisBC has also been providing incentives for businesses to switch to natural gas powered commercial vehicles, freight trucks, waste haulers, buses, off-road trucks, and marine vessels. FortisBC will begin selling renewable natural gas to transport consumers, which will be the transport fuel with the lowest carbon intensity in the province, even lower than electricity.

We also offer resources to help local governments, Indigenous communities and other organizations achieve their climate action goals through our [Climate Action Partners program](#). Additionally, we partner with academic institutions, non-profit groups and other organizations working to advance research and climate action initiatives that contribute to BC's transition to a lower carbon future.

Q: What is FortisBC doing to reduce leaking methane from the supply chain? Do your GHG emission estimates (\$0.059 tonne CO₂e per tonne LNG) include methane leak estimates, maybe using numbers from previous years leaks?

A: FortisBC is developing, and will implement, a Fugitive Emissions Management Plan for the compressor stations that will meet the requirements as set out by the BC Oil and Gas Commission's (BCOGC) Fugitive Emissions Management Guideline. These plans were submitted to the BCOGC for both the Eagle Mountain Compressor Station and the Squamish Compressor Station as part of our permit application for each.

Individual greenhouse gas reports that include fugitive emissions will be required for both the Eagle Mountain and Squamish compressor stations and will be submitted to the BC Ministry of Environment on an annual basis.

Q: How much (roughly) of Fortis' 30BY30 emissions reduction goal be achieved with (i) local, with (ii) bunker fuel customers and (iii) with foreign customers?

A: Our 30BY30 target seeks to reduce our customers' GHG emissions by 30 per cent by 2030 from a 2007 baseline, which is approximately 3.9 million tonnes of CO₂e. We expect that providing LNG to our domestic and international customers could make up about a quarter of our 30BY30 target. However, any plan as far reaching as 2030 and beyond must also allow for significant flexibility to be successful. As the energy industry and all levels of government continue to invest in and support new technologies there are bound to be breakthroughs and shifts in supply that could impact the plan.

Q: For a multi-billion dollar enterprise the size of Fortis, an investment of \$0.5 Million with UBCO to explore the mixing of Hydrogen in natural gas supply... don't you think it is meagre, almost negligible? How far do you think Fortis is from coming close to a commercial solution for mixing hydrogen with natural gas?

A: At this stage, we're looking to understand how hydrogen will work within our system, and UBCO's School of Engineering team is helping us test safe blend and concentration levels within our existing natural gas lines. Once we have that information in hand, we'll better prepared to pursue new opportunities to safely integrate hydrogen into our natural gas system. This investment is part of the first portfolio approved within our \$25 million [Clean Growth Innovation Fund](#), an initiative dedicated to supporting the transformation to a lower carbon economy.

Introducing hydrogen is just one of the ways we're working to increase the amount of renewable gases we deliver our customers. We've made great strides in 2020 to bring on more [Renewable Natural Gas](#) supply, signing 13 new supply contracts. We have an ambitious [30BY30 target](#) of reducing our customers' greenhouse gas emissions by 30 per cent by 2030, and within that, a goal to have 15 per cent of our natural gas supply be carbon neutral by 2030.

Q: If Woodfibre is not able to sell the LNG, would FortisBC buy it back from them for any of its own production needs?

A: FortisBC does not play a role in Woodfibre's contracts or sales. As a regulated utility, FortisBC makes careful and prudent decisions to ensure a reliable energy supply for our customers. We will continue to work closely with all of our customers to ensure timely and appropriate delivery of services.

Regulatory

Q: Will FortisBC be applying to BC Utilities Commission for a CPCN for the changes to this project?

A: FortisBC has applied to the EAO with the Amendment Application, not to the BCUC.

Questions related to responsibility for the project and its costs:

- I. FortisBC is a regulated utility whose charges to Customers are based on recovering its expenses for service. Building a pipeline to a 2.1 megatonne LNG plant will cost in excess of \$500 Million. Won't financing for this come out of our (i.e. customers') pockets and raise our heating and food preparation costs?
- II. You've indicated that Woodfibre LNG will bear the costs of the EGP expansion. If so, why is a capital expense of \$350 million ("exclusive of Customer contributions") doing in Fortis/ books, as presented to recent Investor briefings?

A: Woodfibre LNG will pay for all project costs related to serving the proposed Woodfibre LNG facility.

FortisBC will provide service to Woodfibre LNG based on a rate schedule that has been reviewed and approved by the provincial government and the BC Utilities Commission (BCUC) in accordance with the provincial government's Special Direction No. 5.

Public Impact/Benefit:

Q: When will we see the cumulative impacts of the 3 related projects (WLNG, Eagle M Pipeline, and BC Hydro projects) ... construction disruptions, housing, workforce competitions...?

A: FortisBC is in regular contact with Woodfibre LNG to coordinate both construction and workforce schedules. As construction planning advances we will share with the community our anticipated schedule and workforce numbers.

Questions regarding BC Hydro projects will need to be directed to BC Hydro.

Q: How many attendees are at this virtual info session? How was this virtual info session advertised? Is the presentation tomorrow the same or will new information be presented? Do the 18 participants include the panelists and FortisBC staff? Would it be possible to see the other participants and their questions?

A: The Public Information Sessions were advertised digitally and twice each in print ads published in local newspapers (both the Squamish Chief newspaper and Tri-City News). The sessions were also advertised through paid, targeted social media and communicated to municipal officials and other stakeholders in the community. Each presentation followed the same format, although presentations in Coquitlam focused more closely on the Project components in that area.

Q: FortisBC is trying to fund a staff position with the District of Squamish. Is the completion of this project part of the intended "Strategic Plan" that this position would be hired to work towards?

A: No – by funding positions in different municipalities around the province, FortisBC is looking to help those municipalities meet their carbon reduction goals.

Environment

Q: Fortis's pipeline to Woodfibre LNG passes over a number of earthquake faults. What studies have been done to determine the safety of yet another natural gas pipeline in this area?

A: The potential for earthquake hazards is an important pipeline design consideration for FortisBC and has been investigated through subsurface geotechnical investigations and industry standard analytical methods/models. The results of this work assessed the potential for liquefaction and lateral spreading along the Stawamus Corridor Expansion and Coquitlam Twinning corridor as low. The unique subsurface geological conditions required to support liquefaction and lateral spreading are not common along the corridors. Potential earthquake-triggered landslides may occur along a few sections of the proposed pipeline alignment. These geohazard subtypes are being managed through industry-accepted mitigation measures.

Q: You are operating in one of our three community water sources. Are there environmental requirements for you to meet that are specific to the fact that this is our drinking water? What are they and what are their implications in terms of the work you're doing? How are you mitigating the impacts of construction (in what is a very narrow and steep river canyon)?

A: We are working on developing management plans to address environmental and social economic sensitivities across the Project. Part of that process is to develop the mitigation approaches that go into those plans including how to protect aquatic systems. We will be working with regulators like the Oil Gas & Commission during our permitting process. There will be mitigation approaches that are specific to that area to protect the drinking water and aquatic systems. As we move forward with the planning process these management plans will be developed.

Indigenous Relations

Q: First Nations need to be respected. From what I have read, the Tseil-Waututh's strongly stated concerns were ignored during the EA Application. Does Fortis take UNDRIP seriously?

A: FortisBC is committed to reconciliation with Indigenous Peoples in Canada and uses its Statement of Indigenous Principles to guide corporate words and actions.

FortisBC continues to work closely with Tsleil-Waututh Nation and other Indigenous groups on the Project. We do not wish to comment on behalf of any Indigenous group.

Q: I am quite uncomfortable with the inefficient Indigenous engagement, specifically with the Kwikwetlem Nation. How can we continue with an information session to the public if there has not been sufficient discussions?

A: FortisBC is actively engaged with Kwikwetlem First Nation and committed to respectful and meaningful engagement with Indigenous groups.

Q: How will FortisBC address the issues highlighted by the report on MMIWG that workcamps have significant impacts on Indigenous women and children?

A: FortisBC is committed to examining all potential risk factors with respect to the potential impacts of workforce accommodation. We are working closely with Indigenous communities and local stakeholders to understand concerns and mitigate against adverse risks related to potential workforce accommodation needs on this project.