BRITISH COLUMBIA | Ministry of Environment and Climate Change Strategy

MEETING NOTE

MEETING DATE: May 9, 2022

PREPARED FOR: Honourable George Heyman, Minister of Environment and Climate Change Strategy

TOPIC: FortisBC - Greenhouse Gas Reduction Standard

ATTENDEES: Roger Dall'Antonia, FortisBC CEO
Doug Slater, VP for External and Indigenous Relations
Jordan Bell, Government Relations & Public Affairs Manager
Jeremy Hewitt, ADM, Climate Action Secretariat;
Matt Horne, ED, Climate Action Secretariat

KEY MESSAGES:

- Fortis may advocate for the following policy outcomes for the Greenhouse Gas Reduction Standard (GHGRS) and related Roadmap measures:

Fortis perspective	Suggested response
s.13; s.17	• The proposed GHGRS cap in the Roadmap was set based on B.C.'s sectoral targets, which were established such that the cost per tonne for each sector was equivalent. s.13; s.17 s.13; s.17
s.13; s.17	• The GHGRS and related policy are all under development. As per the Roadmap, we're supportive of flexible options for utilities and we'd see that including energy efficiency, RNG, hydrogen, and electrification. Maintaining the integrity of the greenhouse gas (GHG) reductions promised in the CleanBC roadmap is crucial.
s.13; s.17	• The Ministry is supportive of Fortis' plans to increase RNG. We also have concerns about the pricing proposal for RNG in new construction and the degree to which it cross-subsidizes RNG. We haven't decided if we'll be sharing these perspectives with the BCUC yet.
s.13; s.17	• The other Roadmap measures are complementary to the GHGRS and are intended to help us achieve our targets for buildings and industry as cost-effectively as possible.

s.13; s.17

BACKGROUND:

The GHGRS is a proposed cap on natural gas combustion emissions by industrial (excluding oil and gas), commercial, and residential utility customers. It is one of the key measures in the 2030 Roadmap. The proposed 6.1 Mt emissions cap was determined by evenly applying the relevant sectoral GHG emissions targets (61 percent reduction for the buildings sector; and 40 percent reduction for the industrial sector) to pipeline natural gas supply. A less stringent cap would mean that the Province would either miss its legislated targets, or would have to find more costly and challenging alternative pathways to reduce emissions.

Recent amendments to the Greenhouse Gas Reduction Regulation in 2021 were an interim step to enable RNG and low carbon gas pathways until the GHGRS is fully developed, with the purpose of providing greater flexibility and financial certainty for the utitlies to develop low carbon gas projects.
s.13; s.17

The Roadmap contains other complementary measures that are intended to help achieve the GHGRS cap. Examples include the carbon tax, the 100 percent efficient standards for space and water heating equipment, the phase out of utility incentives for conventional gas-fired equipment, reductions on PST for heat pumps, and increases on PST for gas-fired equipment.

In parallel to the development of the GHGRS, Fortis has applied to the BCUC for new RNG rates to increase the amount of RNG in the system. The rates include continuation of the current voluntary RNG rate, a base blend RNG rate for all customers, and a 100% RNG rate for new residential connections that would have the same rate as the base blend for existing customers.

DISCUSSION:

Modelling from Navius indicates the most cost-effective pathway to reaching the GHGRS cap includes a mix of reduced demand for natural gas, improved energy efficiency, reduced output in some industries, electrification, and RNG. Fortis' preferred pathway to reach the proposed GHGRS cap relies heavily on RNG and hydrogen, particularly from out-of-province sources from other Canadian provinces and the U.S. (upwards of 75 percent out-of-province supplies are modeled).

In 2022, the BC Bioenergy Network, the Government of B.C. and Fortis commissioned a report to estimate the maximum technical supply potential for renewable and low-carbon gases in B.C. The study found that there is limited supply of RNG and hydrogen in B.C., with RNG being particularly constrained. However, Fortis has argued based on the report that there is high potential for low-carbon gas supply in B.C. in 2050 if using large amounts of waste wood (dependent on forestry activity levels) and standing forests to create RNG via syngas were included.

Allowing B.C. utilities to source out-of-province ('notional') RNG and hydrogen from other Canadian provinces and the U.S. poses challenges that the RNG and hydrogen could be double counted across jurisdictions. Strict contractual provisions would reduce the risk of double counting emissions reductions.

Appendix 1_Detailed Conclusions of BC Renewable and Low-Carbon Supply Potential Study

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Appendix 1—Detailed Conclusions of B.C. Renewable and Low-Carbon Supply Potential Study

1) Renewable natural gas from landfills, agriculture, and municipal solid waste is limited.
   a) By 2030, the maximum volume of anaerobic RNG from B.C. which is technically feasible and available under $31/GJ is 8PJ.
   b) By 2050, the maximum volume of anaerobic RNG within B.C. is ~11PJ.
      i) There is not much more technical potential of RNG by 2050 as the quantity of feedstock is primarily constrained by population growth).
      ii) Represents approximately one-third of 15% RNG target (30PJ).
2) The only other potential for RNG comes from syngas-to-RNG upgrading using waste wood and roundwood (includes standing forests).
3) The rest of the potential is mostly made up by blue and turquoise hydrogen development.

Below are the minimum and maximum low carbon gas volume estimates for B.C.:

Table 29 Assumptions for Gas Production in 2030 and 2050, in PJ/yr (Minimum Scenario)

Gas Type	2030	2050	Rationale
Green hydrogen (large on-grid)	0.0	8.3	Slower ramp-up than Maximum scenario
Green hydrogen (small on-grid)	0.8	1.9	Slower ramp-up than Maximum scenario
Green hydrogen (large off-grid)	0.0	2.4	A single 300 MW off-grid wind farm after 2030
Blue hydrogen	14.2	46.8	Limited by permitting and regulatory restraints
Turquoise hydrogen	1.5	15.4	Slower ramp-up than Maximum scenario
Waste hydrogen	0.9	0.9	Identical to Maximum scenario
Syngas in lime kilns	1.4	5.9	Identical to Maximum scenario
Lignin in lime kilns	0.0	0.0	Lignin a more expensive fuel than syngas
Syngas to hydrogen	0.3	13.4	No change to forestry practices. BC Hydro PPAs are extended. No use of wood pellet feedstock. Only low-cost residue used.
Syngas to RNG	0.0	0.0	Technology not advancing as expected
Agricultural RNG	0.9	1.2	Potential for production cost below $31/GJ; 70% of 2030 technical potential (90% of 2050 potential).
Municipal RNG	2.3	4.0	
Waste water treatment gas	0.4	0.6	
Landfill gas	2.1	2.7	
TOTAL	**24.7**	**103.8**	

Table 30 Assumptions for Gas Production in 2030 and 2050, in PJ/yr (Maximum Scenario)

Gas Type	2030	2050	Rationale
Green hydrogen (large on-grid)	8.4	21.0	Converted to petajoules from Table 18
Green hydrogen (small on-grid)	0.8	6.3	Converted to petajoules from Table 18
Green hydrogen (large off-grid)	1.7	12.6	Converted to petajoules from Table 18
Blue hydrogen	14.2	156	From ZEN (2019) report, Figure 28 (in 2050)
Turquoise hydrogen	15.4	92.2	From ZEN (2019) report, Figure 28 (in 2050)
Waste hydrogen	0.9	0.9	From ZEN (2019) report, Figure 28
Syngas in lime kilns	1.4	5.9	100% of lime kilns are converted to syngas by 2050. BC Hydro contracts are not extended.
Lignin in lime kilns	0.0	0.0	Lignin a more expensive fuel than syngas
Syngas to hydrogen	0.3	64.9	Increased forest residue recovery. BC Hydro contracts are not extended. Pellet feedstock transitions towards gas production. 36 plants (or less if larger plant size), also using standing trees
Syngas to RNG	0.3	74.2	One demo by 2030. 26 full-size plants by 2050. Use of some roundwood
Agricultural RNG	1.4	2.0	Potential for production cost below $50/GJ. 70% of 2030 technical potential (90% of 2050 potential).
Municipal RNG	2.4	4.2	
Waste water treatment gas	0.4	0.6	
Landfill gas	2.1	2.8	
TOTAL	**49.7**	**444**	

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s.13 ; s.17

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BRITISH COLUMBIA

Reference: 389136

June 2, 2022

Councillor Loren Muth
Tzeachten First Nation
29-6014 Vedder Road
Chilliwack BC V2R 5M4

Sent via email: loren@tzeachten.ca

Dear Councillor Muth:

Thank you for your email of April 4, 2022, regarding the proposed use of glyphosate in S'olh Temexw. I apologize for the delay in responding and appreciate that you have shared your concerns. I hope that the information provided below will provide a better understanding of how pests and pesticides are managed in British Columbia.

Integrated pest management (IPM) is a decision-making process for managing pests in an effective and environmentally sound way. IPM involves six principles that include elements such as pest prevention, pest identification, consideration of non-chemical methods (for example, manual removal), establishing thresholds for control and evaluating effectiveness of treatments.

Only registered pesticide products may be used. Health Canada's Pest Management Regulatory Agency (PRMA) undertakes a rigorous assessment using scientific evidence before any pesticide can be registered for use in Canada. If a pesticide is approved for use, it is because Health Canada has determined that using the product in accordance with label instructions will not harm human health or the environment. In 2019, Health Canada stated "no pesticide regulatory authority in the world currently considers glyphosate to be a cancer risk to humans at the levels at which humans are currently exposed" this can be found online at: https://www.canada.ca/en/health-canada/news/2019/01/statement-from-health-canada-on-glyphosate.html.

Pesticides are routinely re-evaluated to consider current knowledge and safety standards. If you are interested in Health Canada's re-evaluation decisions, they can be found online: https://www.canada.ca/en/health-canada/services/consumer-product-safety/reports-publications/pesticides-pest-management/decisions-updates.html#rvd-drv.

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The PMRA is in the process of transforming how they consider scientific information related to pesticides and how they conduct evaluations on pesticide products, as well as improving on how they communicate findings to the public. They are currently consulting on this transformation project and more information is available online: https://www.canada.ca/en/health-canada/corporate/about-health-canada/branches-agencies/pest-management-regulatory-agency/transforming/how-we-are-transforming.html. In addition, the B.C. Ministry of Health is currently reviewing the standards for glyphosate residues on food.

Under the B.C. *Integrated Pest Management Act* and Regulation, the Ministry of Environment and Climate Change Strategy sets additional standards for the sale and use of pesticides. The ministry ensures oversight of pesticide users by reviewing required submissions and conducting routine inspections and audits. Results from compliance assessment work is published on the Natural Resource Compliance and Enforcement Database: https://nrced.gov.bc.ca/.

To ensure decision making is informed and relevant, the ministry is committed to continuous review of the latest science available to improve environmental protection and promote best pest management practices in a positive and progressive way. For example, ministry staff will be conducting a jurisdictional scan of how glyphosate is regulated outside of British Columbia and examining the recent science relating to the potential risks of using this product.

When determining the use of glyphosate (or other pest management options) in forestry, certain native plants may be identified as targets for control in a Pest Management Plan. When listed, the goal is not to eradicate these species, but instead to control them to the extent necessary to allow slower growing tree seedlings to establish to a minimum required density in harvested areas.

The Province understands and deeply respects that the protection of the land, water and air is important to Indigenous People. Indigenous cultural, spiritual and experiential practices have always been intricately linked to the land within traditional territories. It is because of this, the ministry takes very seriously its responsibility for ensuring any potential adverse impacts to claimed or proven Aboriginal rights (Aboriginal interests) from pesticide use activities, have been adequately consulted upon and, where appropriate, accommodated.

Integrated pest management proponents play a very important role in engaging Indigenous People and providing information about proposed pest management activities. While the ministry is responsible for ensuring adequate and appropriate consultation and accommodation, the proponent is expected to lead the procedural aspects of the engagement process with Indigenous People and report those activities and information, including any adjustments made in those activities after engagement, to the ministry. These adjustments may include sharing reports and Notices of Intent to Treat, changing timing of an activity to avoid sensitive biological stages or food gathering areas, reducing the size of the area of an activity, changing the mechanics of application, using alternative management techniques, or avoiding the activity all together.

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I have asked Laurel Nash, Assistant Deputy Minister of the Environmental Protection Division to meet with you, if desired, to discuss your concerns further. She may be reached at Laurel.Nash@gov.bc.ca. Additionally, I encourage you to continue engagement with BC Timber Sales under the terms of the People of the River Referrals Office agreement.

Thank you again for taking the time to write.

Sincerely,

George Heyman
Minister

cc: Allan Powelson, Executive Director, BC Timber Sales Headquarters, Ministry of Forests

Ministry of
Environment and Climate
Change Strategy

INFORMATION NOTE

DATE: May 6, 2022

PREPARED FOR: Honourable George Heyman, Minister of Environment and Climate Change Strategy

ISSUE: Comparison of Washington State's new building codes limiting natural gas use in businesses and apartments to CleanBC Roadmap to 2030 commitments.

KEY FACTS:

- Washington (WA) State Building Code Council (SBCC) adopted new measures for the State's energy code. Starting July 1, 2023, gas will not be allowed for space heating in new commercial and apartment buildings.
- The new code bans gas and electric resistance heating (e.g., baseboards, radiating heating, electric furnaces, wall heaters), in effect leaving electric heat pumps as the technological solution. The code requires that at least 50% of the hot water demand be met with heat pumps, and the balance being accommodated for using gas or electric resistance systems.
- The new codes mimic ones passed in 2021 for residential buildings of four or more stories and hotels. The SBBC is in the process of passing similar codes for residential buildings up to 3 stories and single-family homes.
- According to a 2021 study by the U.S. Department of Energy, all U.S. households will see total lifecycle cost savings with these new energy codes. On average, in Seattle and other coastal locations, the total cost of ownership savings will be $2,243 USD, and for interior WA residents the total cost of ownership savings will be $1,034 USD. This is over a 50-year period and accounts for maintenance and replacement costs.
- Under B.C.'s anticipated approach, most builders will likely meet the 2024 standards by installing some form of electric space heating. Some builders will likely choose renewable gas instead of electric space heating if it is allowed as a compliance option and the BC Utilities Commission approves a secured renewable gas rate for new connections.

BACKGROUND:

- As part of the CleanBC Roadmap, B.C. committed to implementing carbon pollution standards for new construction starting in 2024, which will lead to zero-carbon new buildings by 2030.
- Carbon pollution building standards are still in development in B.C., but under current draft proposals, most builders will likely meet the 2024 standards by installing electric space heating, and the 2027 standards by installing electric space and water heating, and the 2030 standards will fully electric buildings.

- B.C.'s approach is expected to allow for the use of renewable gas. If the BC Utilities Commission approves a permanent renewable gas tariff for Fortis, then renewable gas will likely become the preferred option for some builders with the proportion depending in part on the rate for renewable gas.
- B.C.'s approach is expected to allow for electric resistance (e.g., baseboards, regular electric water heaters). The WA code requirement doesn't allow for electric resistance.
- B.C.'s approach is expected to allow for electric-gas hybrid and gas absorption heat pumps, which are suitable for colder climates and have demonstrated GHG reductions of 16 tonnes CO2e in typical residential applications. This would not be allowed for space heating in WA.
- The CleanBC Roadmap also includes a commitment for new and replacement space and water heating equipment to be at least 100 percent efficient.
- Other U.S. States have enacted or are looking at enacting similar regulations to WA to shift to electric heat pumps. These include California and New York.

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