Introduction

Thank you for meeting with us. We are here today to let you know our concerns about fracking in BC, about the BC NDP government's policies on fracking, and about the changes we feel are necessary regarding fracking in BC. Each of us has prepared a short presentation about important aspects of fracking and how it is affecting us and the people of this province. I will present on climate and health, Eli on economy and jobs, Heather on water, and Jane on Indigenous relations, and when we have finished, we would like to hear your thoughts. We are hoping that you will be able take this information to the BC NDP caucus and encourage changes in current policy on fracking in this province.

For many years there has been no doubt in my mind that we are adversely changing the atmosphere and the climate by continuing to burn fossil fuels, and polls now show that most Canadians agree that climate change is real and human caused. I used to love summers in the Okanagan, but now I dread them. It is often too hot and smoky for me to be outside, and after being on evacuation alert twice in the summer of 2021, I worry about the very real possibility of losing my home to wildfire. I know I am not alone. I am also well-aware that I am lucky – I have a well insulated, air-conditioned home I can shelter in, and I have great compassion for those who do not.

Climate

The CleanBC Roadmap to 2030 commits to a 16% reduction in greenhouse gas emissions below 2007 levels by 2025, 40% by 2030, 60% by 2040, and 80% by 2050. A commitment is an obligation, which is the state of being morally or legally bound to do something. I will show with simple arithmetic that we cannot make these commitments if we continue to allow fracking in BC, and especially if we continue to expand fracking as we currently are. BC's GHG emissions in 2007 were 64.76 million tonnes (MtC02e). In 2020 BC's GHG emissions were 64.6 MtC02e – effectively the same as in 2007. In order to make the 2025 commitment we must decrease our GHG production by 10.36 MtC02e. By 2025 LNG Canada Phase 1 will be adding 6.6 MtC02e per year, meaning BC will effectively have to reduce GHG production by 16.96 MtC02e (10.36 + 6.6 – a 24% reduction, up from 16%) to make up for LNG Canada. How can we successfully honor this commitment when 2025 is two years away, and when we were unable to reduce our GHG production in the 13 years between 2007 and 2020?

These numbers are staggering, and the future numbers get worse – by 2030 LNG Canada Phase 2 will be adding an additional 6.6 MtCO2e and Cedar LNG another 1.2 MtCO2e. BC's commitment is a reduction of 40% (25.9 + 6.6x2 + 1.2) = 40.3 MtCO2e, allowing a production of 38.86 MtCO2e. The addition of these LNG terminals effectively requires a greater than 50% reduction in GHG emissions province-wide by 2030. Even if none of the other planned LNG terminals are built, we are still committed to reducing emissions in impossible ways elsewhere in the province to make up for the LNG industry.

As part of the CleanBC Roadmap to 2030 there is also an oil and gas sector emission reduction target of 33% minimum by 2030. Evidence is mounting regarding the under reporting of venting, flaring and "fugitive" methane emissions at well sites and pipelines which will make the numbers even worse as methane is a far more potent GHG than CO2 for the first 20 years.

Premier Eby said in his first speech as Premier "We cannot continue to expand fossil-fuel infrastructure and hit our climate goals," and he is absolutely correct. Every bit of GHG that we add to our atmosphere makes the climate worse, and we have not met a climate commitment yet. This cannot continue — people are suffering and dying here and around the world as a result of our inability to take effective action to reduce our GHG emissions.

Health

The Canadian Association of Physicians for the Environment published a detailed study in May 2022 titled "Communities in Flux – Fracking and Health Impacts: The Lived Experience." It is an emotional experience to read this report. In the study residents living near active fracking sites detailed being disturbed by sight, sound and/or smell from fracking sites 24 hours a day. "The stresses experienced by community members are exacerbated by this persistence, acting as a constant reminder of their concerns and inhibiting their perception and desire for a peaceful environment." In addition, residents never know whether new smells or flared gas (which they are told will only happen in emergencies) indicates something harmful. They have learned through experience that they cannot depend on the gas company to notify them when there is a serious problem. "The ultimate fear is that it will be too late when residents are finally notified of a particularly harmful event."

The study notes the following effects: sleep disturbance, sleep apnea, runny eyes and nose, sore throat, cough, asthma, COPD, idiopathic pulmonary fibrosis, nausea, headaches, scent sensitivities, allergies, multiple sclerosis (confirmed by animal studies), weakness, hypertension, rheumatological impacts, erectile dysfunction, hypogonadism, adverse birth outcomes, and

- "Elevated incidence of advanced-stage cancer in younger people and reported industry workers dying of cancer in their late twenties."
- "Interviewees described the movement of people out of communities due to health, wellbeing, and ecological threats arising from fracking activity" being disruptive to the fabric of the community.
- "Residents in communities with fracking sites expressed concerns for the health of workers. The industry employs a significant number of transient workers. Precarious work and living conditions in work camps are believed to impact workers' health. Study participants noted that overdoses have become more common in their community and connect this to increased industrial activity."
- Road safety transient workers speeding, drinking and driving, and increased vehicle collisions.

In addition, from CAPE "Fractures in the Bridge – Unconventional (Fracked) Natural Gas, Climate Change and Human Health" - US data (where fracking has a longer history) confirming the health effects noted above:

- "Identified 32 negative health outcomes associated with these activities, such as adverse birth outcomes, birth defects, cancer, cardiovascular diseases, dermal effects, gastrointestinal symptoms, neurological effects, and respiratory illnesses."
- "Many symptoms that have been associated with hydraulic fracturing are very common: eye irritation, rashes, nasal irritation, sinus inflammation, fatigue, headaches, diarrhea, and vomiting."
- "The strongest evidence for a link between fracking and health is for adverse impacts on pregnancy, birth outcomes (preterm birth, low birth weight, miscarriage, birth defects), and asthma exacerbation."
- "Effects related to stress and psychological effects have also been documented."

These effects are not trivial, they are avoidable, and must be considered as risks associated with this industry. It is shameful that we are so unconcerned with the health and welfare of people who live in North Eastern BC.

Conclusion

Thank you for your time and kind attention. We very much appreciate this opportunity to meet with you and share our concerns. We have been working with Frack Free BC in the hopes that province-wide collective action will be more effective. Frack Free BC has three goals:

- 1. No new fracking permits
- 2. A date when production will be stopped
- 3. A sustainable transition for workers

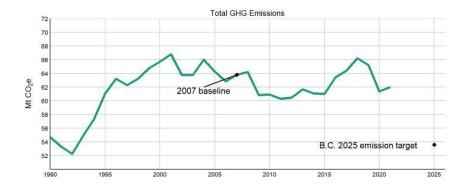
We hope that the BC NDP government will seriously consider our concerns and requests.

References

2007 GHG Emissions = 64.76 million tonnes CO2 equivalent (MtCO2e) 2021 GHG Emissions = 62 MtCo2e (the most recent year with available data)

Greenhouse Gas Emissions in British Columbia

- In 2021, gross greenhouse gas emissions in B.C. were 2.8% lower than the 2007 baseline year.
- Per capita and economic greenhouse gas intensities are based on gross emissions totals. Values reported differ from those used in the <u>Climate Change Accountability Report</u>², which uses net emissions totals to calculate corresponding intensities.



Overall, the greenhouse gases produced per person in B.C. were less in 2021 than the 2007 baseline year. Much of the decrease in 2020 is likely due to the COVID-19 pandemic, and this reduction held steady into 2021.

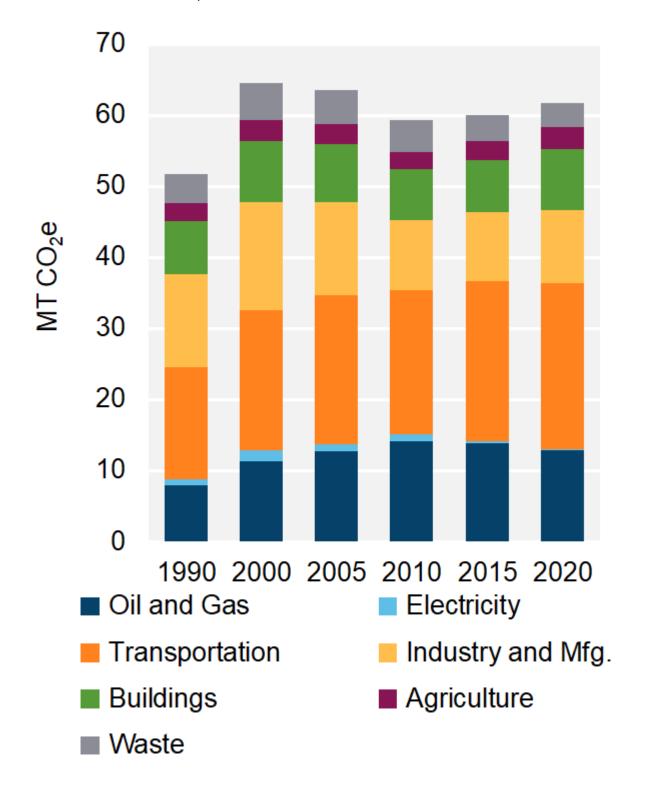
British Columbia Environmental Reporting BC Sustainability Trends in Greenhouse Gas Emissions in B.C. (1990-2021)

https://www.env.gov.bc.ca/soe/indicators/sustainability/ghg-emissions.html

	CleanBC	Allowed	Without LNG	Including LNG	
	Reduction	Emissions	Reduction	Reduction	Reduction
<u>Year</u>	<u>Percentage</u>	(MtCO2e)	Amount (MtCO2e)	Amount (MtCO2e)	<u>Percentage</u>
2025	16%	54.4	10.36	16.96*	24%
2030	40%	38.86	25.9	40.3**	51%
2040	600/	25.0	20.00	F2 2C**	C70/
2040	60%	25.9	38.86	53.26**	67%
2050	80%	12.95	51.81	66.21**	84%
2030	0070	12.33	J1.01	00.21	04/0

^{*}Includes 6.6 MtCO2e produced by LNG Canada Phase 1

^{**} Includes 13.2 MtCO2e produced by LNG Canada Phases 1 & 2 (6.6 MtCO2e each) and 1.2 MtCO2e produced by Cedar LNG



A study in La Plata County, Colorado, reported noise levels for a number of oil and gas activities:

Typical compressor station	50 dBA (375 feet from property boundary)	
Pumping units	50 dBA (325 feet from well pad)	
Fuel and water trucks	68 dBA (500 feet from source)	
Crane for hoisting rigs	68 dBA (500 feet from source)	
Concrete pump used during drilling	62 dBA (500 feet from source)	
Average well construction site	65 dBA (500 feet from source)	

The BLM published these noise statistics for point sources 50' away (just not in this report):

- Well drilling 83 dBA
- Pump jack operations 82 dBA
- Water injection facilities 71 dBA
- Gas compressor facilities 89 dBA



Canadian Association of Physicians for the Environment (CAPE) Reports:

Communities in Flux – Fracking and Health Impacts: The Lived Experience https://cape.ca/wp-content/uploads/2022/12/Communities-in-Flux-%E2%80%93-Fracking-and-Health-Impacts.pdf

Fractures in the Bridge – Unconventional (Fracked) Natural Gas, Climate Change and Human Health https://cape.ca/wp-content/uploads/2020/01/CAPE-Fracking-Report-EN.pdf