Rx

Date: February 24, 2022

CAPE Canadian Association of Physicians for the Environment
Association Canadienne des Médecins pour l'Environnement ACME
New Brunswick

FONDATION SIERRA CLUB CANADA FOUNDATION ATLANTIC

To: The NB Standing Committee on Climate Change and Environmental Stewardship

On behalf of the Canadian Association of Physicians for the Environment–New Brunswick (CAPE–NB) and Sierra Club Canada Foundation – Atlantic, we write to you with an urgent prescription for the province's Climate Change Action Plan.

The World Health Organization has identified climate change as the "biggest health threat facing humanity."[1] According to the WHO, these health threats include increased injury and mortality from extreme weather events, heat-related illnesses, respiratory illnesses, water-borne diseases, food-borne and vector-borne diseases, negative mental health impacts, and more.[2]

If we fail to effectively address the climate crisis, these and other negative health outcomes will overwhelm our health care system.

As we've seen with the Covid-19 pandemic, an emergency requires decisive action that is capable of meeting the magnitude of the crisis. In the case of the global climate emergency, it's imperative that the government accelerate efforts to transition to clean, renewable energy. By doing so, the government can have an immediate impact by reducing air pollution caused by burning coal and other fossil fuels. Cleaner energy systems not only mean cleaner air, but also cleaner soil and water—all of which will improve health outcomes for New Brunswickers.

This Rx calls upon the New Brunswick government to:

- **Maximize funding** to support the rollout of clean renewable energy in the province. The IPCC "Code Red for Humanity" report, released in August 2021, made it clear that we must immediately put the brakes on greenhouse gas emissions.[3] New Brunswick can do its part by focusing on *existing* technologies that can deliver clean renewable energy in the near term. Wind and solar energies are reliable, affordable, and readily available.
- **Remove regulatory obstacles** that impede the participation of small-scale, independent suppliers of clean renewable energy from generating electricity for local communities and businesses.[4]
- **Accelerate the shutdown** of Belledune Generating Station and replace it with clean, non-emitting renewable energy.[5] [6]

> We need immediate action on energy. Without deep carbon pollution cuts now, the 1.5°C goal will fall quickly out of reach… By 2030, solar and wind capacity should quadruple and renewable energy investments should triple to maintain a net-zero trajectory by mid-century.[7]
> —UN Secretary General António Guterres, August 9, 2021

Belledune must not be converted over to fracked gas (aka, natural gas) or forest biomass.

So-called natural gas plants burn fracked gas.

The main component of fracked gas is methane, a supercharged greenhouse gas that heats the atmosphere far more quickly than carbon dioxide: "A tonne of methane is equivalent to between 84 and 87 tonnes of CO2 when considering its impact over a 20-year timeframe (GWP20)."[8]

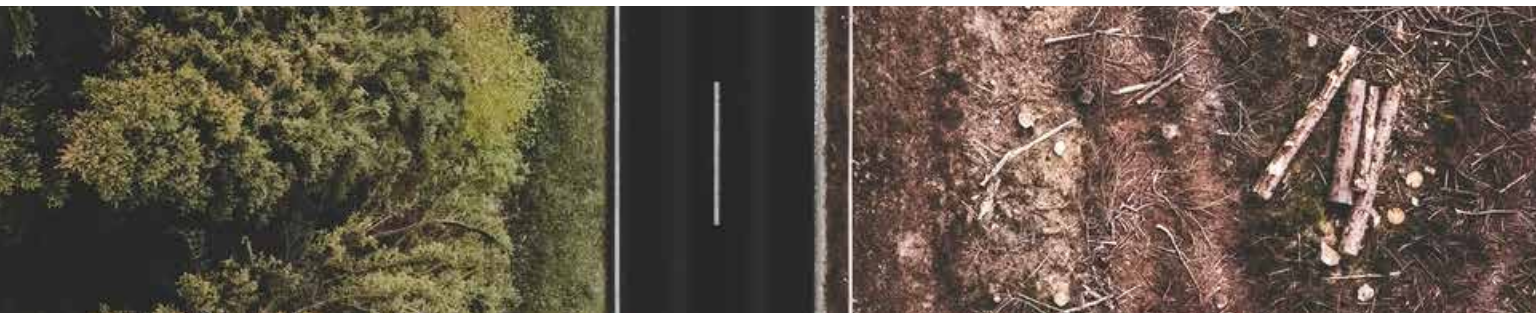
> "Methane is a powerful but short-lived climate pollutant that **accounts for about half of the net rise in global average temperature** since the pre-industrial era." —Global Methane Pledge

Massive methane leaks occur in the extraction, processing, and transportation of fracked gas.[9] The latest International Energy Agency report shows that actual methane emissions from the energy sector are 70 percent higher than official figures (often self-reported by the industry).[10]

Concern over the climate heating effect of methane resulted in the Global Methane Pledge at COP26 in Glasgow in 2021. More than 100 countries—including Canada—have signed this pledged to reduce methane emissions.[11]

> The myth of gas as a "bridge" to a stable climate does not stand up to scrutiny. While much of the debate to date has focused on methane leakage, **the data shows that the greenhouse gas emissions just from burning the gas itself are enough to overshoot climate goals.**
>
> —Burning the Gas 'Bridge Fuel' Myth: Why Gas Is Not Clean, Cheap, or Necessary - Oil Change International

Investing in fracked gas plants would further lock in the province's CO2 emissions rather than set us on a path to accelerate clean renewable energy.



Burning forest biomass to generate electricity emits more carbon dioxide than burning coal.[12]

> Because combustion and processing efficiencies for wood are less than coal, the immediate impact of substituting wood for coal is an increase in atmospheric CO2 relative to coal. The payback time for this carbon debt ranges from 44–104 years… — Does replacing coal with wood reduce CO2 emissions? Environmental Research Letters[13]

Due to an international carbon accounting loophole,[14] the carbon dioxide emissions created by burning forest biomass to generate electricity are not being added to New Brunswick's—or Canada's—total greenhouse gas emissions.

New Brunswick's forests need to be protected, not inefficiently burned to produce electricity.

Our neighbour, the province of Quebec, has at its disposal 176 terawatt hours of energy storage capacity through its hydro-dam reservoirs.[15]

NB Power can use Hydro-Quebec reservoirs as a wet battery to store surplus wind or solar power. Furthermore, we can draw upon this stored energy when the wind isn't blowing and the sun isn't shining. Hydro-Quebec also has a large surplus of hydro power to supplement New Brunswick's baseload electricity needs. NB Power has signed power purchasing agreements with Hydro-Quebec to import 2 terawatts of electricity annually.[16]

Maximize funding for deep energy retrofits for homes and buildings to reduce electricity demand as well as energy poverty. We call upon the New Brunswick government to implement new legislation requiring all new homes and buildings to be net-zero ready. This will help future-proof building stock, saving money and time as the province transitions to clean renewable energy.

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New Brunswick's Climate Change Action Plan has many strong goals and objectives. However, the pace of *action* in carrying out the plan has been slow.

The climate crisis has been diagnosed for years. Prescriptions to remedy it have also been available for years and solutions are more accessible than ever before. In the case of electricity, clean renewable energies, such as wind and solar, are now cheaper than fossil fuels.[17]

But diagnoses and prescriptions are ultimately futile without a willingness to follow the science and do what is required in a timely way.

We urge the Standing Committee to **treat the climate emergency as an emergency** and act swiftly upon our recommendations, as well as those put forward by other environmental groups to strengthen the New Brunswick's Climate Change Action Plan.

As the CEO of the World Bank[18] and other international leaders[19] have made clear, we are the last generation that can alter the course of climate change. But we don't have much time. Please use it wisely—for the sake of all New Brunswickers, and the future generations to come.

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ENDNOTES:

1. Climate change and health World Health Organization, Oct 30, 2021
2. Ibid
3. Secretary-General Calls Latest IPCC Climate Report 'Code Red for Humanity', Stressing 'Irrefutable' Evidence of Human Influence | August 9, 2021.
4. Atlantic Vision For Clean Electricity, Conservation Council of New Brunswick
5. "Belledune is the heaviest-emitting power plant in Atlantic Canada based on 2019 greenhouse gas emissions data, spewing roughly 2.5 million tonnes of CO2 equivalent emissions that year." National Observer, December 7, 2021
6. NB Power has signed power purchasing agreements with Hydro-Québec to import 2 terawatts of power annually from Québec, for a total of 47 terawatts by 2040 (1 terawatt = 1 million megawatts). Belledune Generating Station's 450 megawatt capacity can be taken offline without jeopardizing the province's baseload supply of electricity.
7. Secretary-General Calls Latest IPCC Climate Report 'Code Red for Humanity', Stressing 'Irrefutable' Evidence of Human Influence | August 9, 2021.
8. World Energy Outlook 2017 – Analysis - IEA, page 405.
9. It's a Vast, Invisible Climate Menace. We Made It Visible. - The New York Times
10. Methane emissions from the energy sector are 70% higher than official figures - News - IEA, February 23, 2022
11. Global Methane Pledge
12. Carbon emissions from burning biomass for energy - Partnership for Policy Integrity
13. Does replacing coal with wood reduce CO2 emissions? page 1, Environmental Research Letters
14. The Millions of Tons of Carbon Emissions that Don't Officially Exist, The New Yorker, December 8, 2021
15. Hydro-Québec Production
16. Hydro-Québec, New Brunswick's clean energy partner
17. Atlantic Vision For Clean Electricity, Conservation Council of New Brunswick
18. 'We are last generation that can stop climate change' – UN summit, The Guardian, December 3, 2018
19. Remarks by the President at the U.N. Climate Change Summit, The White House, President Barack Obama, September 23, 2014