

## A PUBLIC LETTER TO CANADA'S MINISTER OF NATURAL RESOURCES

August 23, 2022

The Honourable Jonathan Wilkinson  
Member of Parliament for North Vancouver  
310 Esplanade E, Suite # 201  
North Vancouver B.C. V7L 1A4

Dear Mr. Wilkinson,

Re: your letter July 22, 2022

We wrote to you on November 30, 2021, regarding your government's plans to continue increasing the level of Canada's oil production for another 10 or 20 years.

We invited you to respond and explain how this projected growth in Canada's oil production levels can possibly be reconciled with the available evidence based on climate science, which shows that within that same period, over the next 10 and 20 years, deep reductions in global oil production are essential to give us any realistic chance to keep the heating of the earth to within the 1.5°C threshold.

In our letter we specifically directed your attention to the International Energy Agency's (IEA) Net-Zero Emission by 2050 Scenario,<sup>1</sup> published May 18, 2021, the leading international study that has examined the magnitude of the reductions in oil production required on a global scale to avoid a catastrophic climate outcome. We noted the IEA's key findings that a 25% reduction of global oil consumption is required by 2030 and a 50% reduction by 2040 to stay on a pathway to 1.5°C.

### 1. Your reply on July 22, 2022

We reproduce here the opening paragraph in your letter on July 22, 2022, replying to our inquiry:

*Regarding your question about the future of oil production in a net-zero future, as announced at COP26 in November 2021, the Government of Canada will cap emissions in the oil and gas industry, the first global producer to do so. We will work with provinces, territories, and industry to gradually reduce emissions by 2050 to achieve net-zero emissions. At the same time, based on the International Energy Agency's (IEA) Net-Zero Roadmap, crude oil will continue to be a major part of the energy supply mix in*

*2040 and beyond. Canadian oil and gas will continue to play a key role in supplying the world's energy needs, as many countries commit to achieving net-zero by 2050. Canada's oil and gas industry continues to innovate and consistently reduce their emissions and cost per barrel.*

— Jonathan Wilkinson, letter July 22, 2022, page 1 (emphasis added)

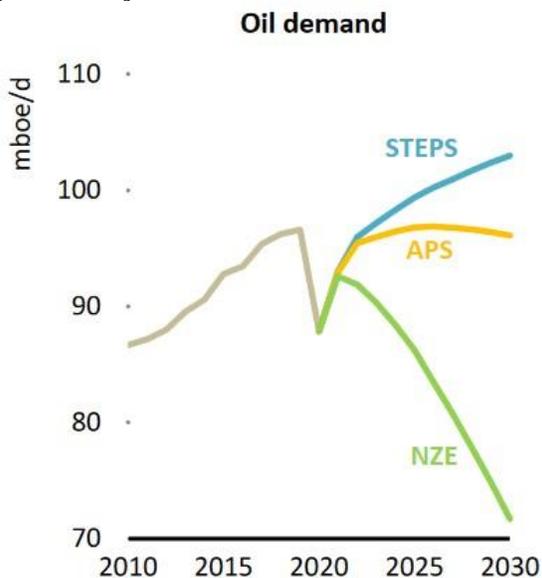
Your characterization of the IEA's findings with respect to future levels of global oil consumption to 2040 and beyond is inaccurate and gravely misleading. The material and core findings in the IEA Net-Zero by 2050 Scenario, released on May 18, 2021, describe in detail the magnitude and pace of the deep reductions in global oil production that will be required as early as 2030 and 2040. You have chosen to omit any mention of those key findings about the near-term reductions.

## 2. The evidentiary basis of our question

The most important contribution of the IEA's Net-Zero Emissions by 2050 Scenario was its candid warning about the *immediacy* of the need to halt any further *expansion* of oil production, and its detailed findings about the rapid pace and severity of the deep cuts in oil use needed by 2030 and by 2040 to give the world *even a 50-50 chance* to keep the heating of the earth to within the 1.5°C threshold. It determined that within this decade a 25% reduction in global oil production would be required, down to 72 million barrels per day (bpd) by 2030, and a 50% cut to 44 million bpd by 2040.

The complete divide between the present intentions of our governments and what human beings need to do within the next nine years is depicted in Figure A. It shows the path of oil demand under each of the IEA's three Scenarios:

**Figure A: Projected Oil Demand to 2050**



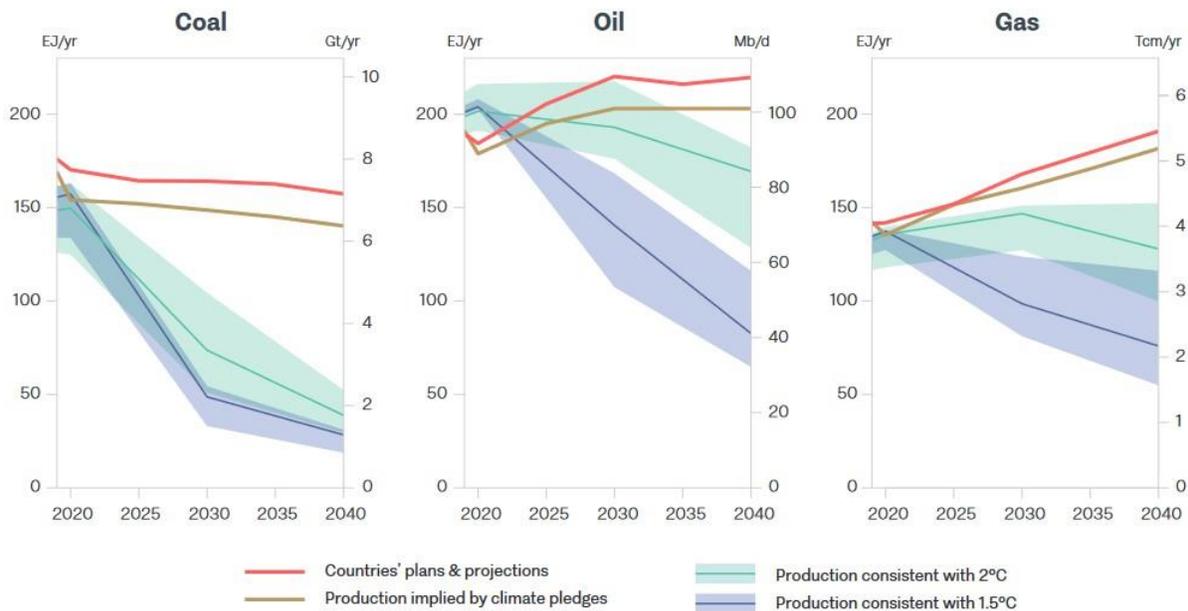
Source: *World Energy Outlook 2021*, October 12, 2021, Figure 5.3, page 214.

The IEA’s Net-Zero Emissions by 2050 Scenario (“NZE”) study concluded that global production must decline to 24 million bpd by 2050 (a 75% reduction) to align with 1.5°C. Furthermore, to meet that goal, 70% of the remaining 24 million bpd of oil production by 2050 will have to be used in applications where *the fuel is not combusted and so does not result in any direct CO<sub>2</sub> emissions* (i.e., used to produce chemical feedstocks, lubricants, and asphalt). By 2050, oil must have very limited use as a transportation fuel except for aviation. Canada’s current plan is to continue *increasing* our oil production to 2030 and 2040.

The top blue line of the above graph (“STEPS”, which refers to the IEA’s Stated Policies Scenario) depicts the IEA’s most recent projection indicating the rising pathway of global oil production between now and 2030, based on the current plans of Canada and the world’s other oil producing countries. The sharply declining green line (“NZE”) shows the magnitude of the cuts in overall world oil production needed by 2030 to give us a 50-50 chance of being able to limit global heating to less than 1.5°C.

Another clear warning was given October 20, 2021, when the UN Environmental Programme and the Stockholm Environmental Institute released their *Production Gap Report 2021*,<sup>2</sup> which confirms the tragic disconnect between existing plans by the world’s major fossil fuel producing countries (including Canada) to continue expanding production levels and the desperate need to start reductions. In the case of oil production, the center graph in Figure B below shows that based on oil producing countries’ current plans, between now and 2030 the gap will widen between the deep production decline required to be consistent with the 1.5°C pathway (the bottom diagonal line) and the current expansionary pathway (the top red line).

**Figure B: projected coal, oil, and gas production to 2030 and 2040**



Source: *Production Gap Report*, October 20, 2021, Figure 2.2 at page 16.

The *Production Gap Report* concluded that “the world’s governments plan to produce more than twice the amount of fossil fuels in 2030 than would be consistent with limiting warming to 1.5°C”. In the specific case of oil production, it states:

*Nations are, in aggregate, planning on producing around 40 million barrels per day (Mb/d) more oil than would be consistent with the median 1.5°C pathway in 2030 (with a range of 26-56 Mb/d). This excess is roughly equivalent to half of current global oil production.*

— *Production Gap Report*, October 20, 2021, p. 15

### 3. Canada’s planned oil production increases to 2030 and 2040

On March 29, 2022, the Federal Government released its most recent climate policy statement called the *2030 Emissions Reduction Plan* (ERP).<sup>3</sup> Most of the 233-page document lays out details of promised policies that the government says will reduce Canada’s total domestic emissions 40% by 2030, down to an estimated 443 million tonnes (Mt), which the report calls our “notional pathway to 2030”. Our domestic emissions reached 738 Mt in 2019.<sup>4</sup>

Yet, set sharply against this picture of promised deep emissions reductions within Canada over the next nine years, this same plan incorporates a detailed plan by our government to continue increasing Canada’s oil production to 2030 and maintain high production levels for another 20 years after that. The plan envisions no significant reduction in Canada’s oil production levels before 2050.

Table 6.2 at page 213 of the ERP provides data showing a 26% increase in our oil sands and conventional oil production this decade, rising from 4.411 million barrels per day (bpd) in 2019 to 5.567 million by 2030. The data is taken directly from the *Canada’s Energy Future 2021* report, published by the Canada Energy Regulator (CER) on December 9, 2021.<sup>5</sup> The ERP document adopts the production numbers shown in the CER’s “Current Policies Scenario”, but now calls it the “Reference Case”.

At a press conference on April 4, 2022, Canada’s Minister of Environment Steven Guilbeault confirmed that Canada’s new climate plan is “based on” increasing oil production:

*... the plan we presented last week, the Emissions Reduction Plan, was based on the Canadian Energy Regulator projections that oil and gas production would increase in Canada between now and 2030 ...*

The ERP document portrays the CER as playing an important and responsible role in advising government and industry to ensure that Canada’s oil and gas production is safely developed in a way that is consistent with meeting the 1.5°C goal. The ERP (in a box on page 213) declares:

*... a key objective of the 2015 Paris Agreement is to hold the increase in global average surface temperature to well below 2 degrees Celsius while pursuing efforts to limit the increase to 1.5 degrees above pre-industrial levels.*

It goes on to say that Canada has adopted a goal of “net-zero emissions by 2050”, and continues:

*The Canada Energy Regulator’s Canada Energy Future reports provide a framework for businesses to make investment decisions in the energy sector. Its projections are important for ensuring Canadian businesses are making investments consistent with a transition to cleaner energy sources.*

— 2030 Emissions Reduction Plan, Environment Canada, p. 213

The above statement is clearly intended to convey to Canadians that the CER’s projections of Canada’s future oil production levels are aligned with meeting the promised 1.5°C goal, or at least that the production plan has been designed with that goal in mind. But the statement is untrue. Here are the most recent oil production projections published on December 9, 2021, by the CER:

**Figure C: Future oil production – conventional oil and oil sands, millions of barrels per day (bpd)**

	<b>2019</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>
Current Policies Scenario	4.4	5.4	5.7	5.5
Evolving Policies Scenario	4.4	5.0	4.6	4.0

**Source: Canada’s Energy Future 2021, Canada Energy Regulator, December 9, 2021.**

The CER 2021 report explains that its “Current Policies Scenario” assumes “energy and climate policies that are currently in place” around the world remain unchanged. In other words, it represents a continuation of the high-level dependence of the global energy system on fossil fuels to 2050, and projects Canada’s oil production will continue to grow to 2040. In its most recent *Canada’s Energy Future 2021* report, in a single brief sentence on page 19 the CER admits that even its new “Evolving Policies Scenario”, showing slightly slower production growth to 2032 and thereafter a very gradual decline in Canada’s oil production to 2050, does not put us on a pathway to meet the Paris goals, whether 1.5°C or 2°C:

*In the Evolving Policies Scenario, significant GHG emissions reductions will be realized, but ambitious goals such as net-zero by 2050 are unlikely to be met.*

The CER has consistently, over many years, failed to examine whether Canada’s planned oil production increases are aligned with a 1.5°C world. The ERP document merely tells Canadians that the Minister of Natural Resources has very recently sent a letter<sup>6</sup> to the CER asking that it conduct a new scenario analysis:

*On December 16, 2021 Natural Resources Minister Jonathan Wilkinson, wrote to the Chairperson of the CER’s Board of Directors Cassie Doyle, to request that the CER produce fully modelled net-zero scenarios consistent with 1.5 degrees of warming under the Paris Agreement. The 1.5 -aligned Scenario Analyses will include fully modelled scenarios of supply and demand of all energy commodities in Canada, including clean fuels, electricity, and oil and gas. This modelling will also include the future trends in*

*low-carbon technology and energy markets, to provide Canadians with information they need to better understand the future energy transition.*

— *Emissions Reduction Plan*, March 29, 2022

But the “modelling” has not been done. It is not yet available. The promised 1.5°C-aligned analysis will not be publicly available until late in 2022 or early 2023. In the meantime, our government is justifying decisions to expand our oil production (decisions that involve projects and infrastructure that will have an operating lifetime of 20 or 30 years) based on CER projections which are clearly not aligned with 1.5°C. By 2023, Canada’s oil production will have increased by another 350,000 bpd above the 2021 level – and by 2024 it will be 530,000 bpd higher. That represents a 10% rise in our oil production within the next two years. Under the CER’s most recent Current Policies Scenario, Canada’s projected oil production by 2040 is about 36% above our production level in 2019.

#### 4. April 6, 2022: approval of the new Bay du Nord offshore oil project

On April 6, 2022, the Federal Government announced the approval<sup>7</sup> of a major new offshore oil field in Newfoundland which is expected to come into production by 2028. Bay du Nord will contribute an additional 200,000 bpd to 300,000 bpd to Canada’s oil production level. The approval came just one week after the *Emissions Reduction Plan* was published.

On April 4, 2022, two days before the Bay du Nord decision was announced, Environment Minister Steven Guilbeault was asked at a press conference how Canada can justify *expanding* production when recent studies by the International Energy Agency (IEA) and other international bodies have explained that an immediate halt to further oil production growth is required to give us a chance of keeping global heating from exceeding the 1.5°C threshold. In his answer, the Minister referred to the government’s new ERP:

*So, the plan we presented last week, the Emissions Reduction Plan, was based on the Canadian Energy Regulator projections that oil and gas production would increase in Canada between now and 2030. Now, as many of you know, Minister Wilkinson, who is responsible for the Canada Energy Regulator, asked them for new scenarios in terms of production and demand for fossil fuels and different forms of energy that would be compliant with 1.5 scenarios. Now we don’t have those scenarios from the CER so we had to use the last ones that were available which forecast an increase in production between now and 2030 and what our plan shows is how we get there, despite the increase in production ...”*

— Guilbeault, Press Conference, April 4, 2022 (emphasis added)

Guilbeault misled the media, and deceived all Canadians, when he stated at his press conference on April 4, 2022, that he and the government “had to use” the CER’s December 2021 oil projections. Both you and Minister Guilbeault are aware that the CER’s projections showing continued increases in Canada’s oil production to 2032 are unreliable because they have never been tested against modelled net-zero scenarios consistent with 1.5°C of warming. He admitted at his press conference “we don’t have those scenarios from the CER”.

You and Guilbeault approved the decision to include the CER's December 2021 oil production data as an integral part of the new *Emissions Reduction Plan*. Guilbeault's own Ministry put the profoundly flawed production data into the plan on March 29, 2022. Six days later he told the media that he and his cabinet colleagues had no choice but to be guided by that data.

The truth is that nothing forced Steven Guilbeault to accept and adopt the CER's projections as a framework that bound him to approve the Bay du Nord offshore oil project, as he did on April 6. No law or necessity compelled Minister Guilbeault or you to adopt the flawed CER projections as a mandatory "framework" to guide the government's decision-making.

Canada's current planning and approvals of new projects that will drive increased oil production to 2040 and beyond is based on projections by the CER that are not remotely aligned with meeting the 1.5°C goal.

Canada's new *Emissions Reduction Plan* document completely omits any mention of the warning given by the IEA about the need for deep cuts by 2030 and 2040. Here is the misleading way your government describes the IEA's findings:

*The International Energy Agency forecasts that to limit warming to less than 1.5 degrees C, global oil production will have to decline from 100 million barrels per day in 2020 to 24 million barrels by 2050. To remain competitive in a tighter future market, Canadian production will have to reduce its carbon intensity while the sector explores opportunities to transition to non-emitting products and services.*

— 2030 Emissions Reduction Plan, p. 48 (emphasis added)

The ERP document refers to the cut in oil consumption required by 2050. But nowhere in this lengthy report prepared by our Ministry of Environment is there a single mention of the need for deep cuts by 2030 and 2040. A further misleading description of the IEA's Net-Zero by 2050 Scenario is found in the introductory section to the ERP document:

*The International Energy Agency's Net-Zero Scenario sees continued oil and gas use globally, but with demand declining significantly in the coming decades.*

The missing information, if it had been included, would stand in direct contradiction to Canada's current plans to continue expanding its oil production. Canada's ERP omits any reference to the IEA's urgent and detailed warning that very deep cuts in global oil use are required by 2030 and 2040.

## 5. Nine years of failure of the Canada Energy Regulator: 2014 to 2022

We reproduce here a portion of your letter of July 22, 2022, in which you describe the role of the Canada Energy Regulator. You refer approvingly to the recent *Canada Energy Future 2021* report:

*This December 2021 report contributes to the ongoing dialogue of future energy use and climate policy in Canada and adds to an important and growing body of knowledge on*

energy transformation that will help inform decisions as the government works toward achieving net-zero emissions by 2050.

— Jonathan Wilkinson, letter July 22, 2022, page 1 (emphasis added)

This is misleading. The CER 2021 report published on December 9, 2021, offers no analysis or data that explains the massive discrepancy between Canada’s current plan to continue expanding our oil production to 2030 and 2040 and the deep and rapid reductions required to align our output to a 1.5°C.

On July 8, 2021, twenty-one energy economists and climate scientists, all deeply experienced and informed about Canada’s oil production projections and the emissions implications of continued expansion, sent a letter to the Prime Minister.<sup>8</sup> It cited in detail the findings of the IEA’s May 18, 2021 “Net-Zero Emissions by 2050 Scenario”, and was copied to the Minister of Environment and Climate Change, and to the Minister of Natural Resources, and to the Chair and CEO of the Canada Energy Regulator. They wrote: “Specifically, we urge you to mandate that the Canadian Energy Regulator model scenarios consistent with the IEA’s Net Zero by 2050 report”. In plain English, that meant the government should immediately direct or instruct the CER to develop scenarios that will identify the much lower and declining oil production levels in Canada over the next 20 to 30 years that would be safely aligned with an effective global effort to stay within the 1.5°C warming threshold. The Minister did not act. Six months passed. Undeterred, the CER released its new oil projections, entirely ignoring the crucial question.

On December 14, 2021, just five days after the CER 2021 report was released, four of Canada’s leading experts on climate policy and oil production published an article<sup>9</sup> containing a devastating indictment of the irresponsible and misleading character of the CER’s new projections: “*Canada’s energy regulator turns a blind eye to dangerous global warming*”. They stated that the report has “failed to inform looming policy decisions”. The authors pointed out that the CER’s new “Current Policies” forecast for Canadian fossil fuel production (now enshrined in Canada’s ERP) is roughly aligned with the IEA’s recently published “Stated Policies Scenario” which, as the authors explain, “anticipates 2.6°C of warming, far beyond the Paris target”.

For seven years in succession the CER (formerly known as the National Energy Board, or “NEB”) has turned a blind eye to this fundamental question, which remains unanswered. No environmental assessment or public inquiry process of any kind in Canada has ever answered the question, which is whether the planned growth of Canada’s oil production to 2030 and 2040 is compatible with keeping increased warming to 1.5°C.

Between 2014 and 2016, Canadians had an opportunity to examine that important question during the lengthy inquiry process that preceded the final decision by the Federal cabinet authorizing the construction of the Trans Mountain Pipeline (TMX) Expansion. The Federal Government at that time was also preparing to authorize the construction of a second pipeline expansion, known as “Line 3”. Line 3 was completed in 2021. By late 2023, when TMX is also completed (assuming it is completed), the two projects together will provide 910,000 barrels per day (bpd) of new shipping capacity.

The government based its authorization of the TMX project on a multi-volume report by the National Energy Board (NEB), which recommended on May 19, 2016, that the project proceed. The NEB's report was portrayed to the Canadian public as a thorough environmental review. It did examine the risks of oils spills in B.C.'s tidal waters and the threats to salmon at river crossings, etc. But the NEB Inquiry *did not look* at climate and the emissions implications.

The NEB inquiry was a public hearing process and it had full powers to call evidence. However, the NEB took the view that "upstream emissions" released into the atmosphere at oil sands production sites in Alberta did not fall within the scope of the inquiry – and it excluded any consideration of the much larger volume of "downstream emissions" from the exported oil. Accordingly, the inquiry excluded all evidence about greenhouse gas emissions from expanding oil sands production in Alberta – and it excluded all scientific evidence about the impact of emissions on the climate system.\*

At the start of that inquiry in early 2014, the City of Vancouver applied for an order to expand the scope of the inquiry to include those issues. Other intervenors made submissions supporting the City of Vancouver's motion. The NEB panel in a ruling on July 23, 2014 (NEB Ruling 25) rejected the application by the City of Vancouver to expand the List of Issues, which would have permitted intervenors to call expert evidence about emissions and climate change. The City appealed the NEB refusal, but the Federal Court of Appeal dismissed Vancouver's appeal on October 16, 2014.

As a result, the NEB during its inquiry did not consider at all the emissions implications of the additional volume of oil sands production that would be facilitated by the proposed very large expansion of pipeline shipping capacity. The NEB excluded all evidence about climate science and climate change. The final report released on May 19, 2016, was silent on those questions.

The second "review process" in 2016 was the *Trans Mountain Expansion Project Review of Related Upstream Greenhouse Gas Emissions Estimates* (informally known as the "upstream emissions assessment"). It released its final report on November 25, 2016. It too avoided making any determination of whether the planned expansion of Canada's crude oil production would be compatible with the Paris Agreement commitment to limit average temperature rise to well below 2°C and pursue efforts to limit the increase to 1.5°C. Instead, it provided only this highly equivocal answer:

*A number of studies have considered scenarios where global warming is limited to 2°C. However, these scenarios utilize different modelling frameworks and can have vastly different assumptions around technological and economic progress. The role of technological innovation, policy design and stringency, and consumer and business*

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\* The Federal Court of Appeal decided in its ruling on October 16, 2014, that the NEB's jurisdiction did not require that it examine the emissions implications of the pipeline. After assuming power from the Harper Government in October 2015, the Trudeau Government had the full opportunity and the legislative power to amend the law to require that the NEB look at emissions and accept and consider relevant expert evidence about climate science before the inquiry ended. The Trudeau Government chose not to do so. The very limited scope of the NEB's environmental examination of the pipeline project (allowing it to exclude climate science) was the deliberate choice of the Trudeau Government.

*behaviour, both in Canada, and globally, can have significant implications on Canadian oil sands production in these scenarios. As a result of the differing treatment of these variables, conclusions across scenarios are not uniform, and the impact on Canadian oil sands production is not clear. However, a common result of modelling efforts to analyze a 2°C world is that overall global crude oil production declines relative to the status quo.*

— *Review Upstream Emissions*, November 25, 2016, B.2.6. at p. 28 (emphasis added)

The upstream emissions assessment therefore declared that the answer to this fundamental question was “not clear”. It merely acknowledged, in general terms, that global crude oil production would need to decline overall to limit warming to 2°C but offered no guidance on the magnitude of the required future reductions, or the timelines. It was completely silent about the deeper reductions that would be needed to meet the 1.5°C goal. The issue was buried. It was not a public inquiry. It was a closed process with no hearings. The government and the pipeline company controlled the flow of information. Incredibly, the procedure required that only “*publicly available data provided by the proponent will be used*”. The “proponent” was the pipeline company. No representatives of the public could participate or demand the right to call evidence.

In your letter to us on July 22, 2022, you state as follows:

*Regarding the role of the Trans Mountain Pipeline Expansion in a net-zero context, after considering a wide variety of science and information (including from the Canada Energy Regulator), reviewing potential environmental and endangered species impacts, and consulting with 129 Indigenous groups, the Government of Canada approved the Trans Mountain Pipeline Expansion ...*

Your statement is untrue. The truth, well documented in the NEB’s own report and in its Ruling 25 on July 23, 2014, is unequivocal. The NEB’s three-year inquiry excluded all evidence about the emissions implications of Canada’s plan to continue expanding our oil production to 2040 – and declined to accept or consider any expert science evidence about the climate impacts of the proposed expansion of our oil production to 2030 and 2040 that would be facilitated by proposed TMX project.

## 6. Promised “cap” on oil sands emissions will not slow the projected growth of Canada’s oil production to 2030

On November 1, 2021, on the stage at the COP26 meeting in Glasgow speaking to an assembly of world leaders, Prime Minister Trudeau declared that Canada has “formally committed” to cap emissions from our country’s oil and gas sector.

What Trudeau did not tell the assembled leaders is that Canada, the world’s fourth largest oil producer and third largest oil exporter, intends to continue expanding its oil production.

The promised “cap” relates only to the volume of emissions released into the atmosphere from oil extraction and processing activities within Canada. On October 27, 2021, the day after his

appointment as Environment Minister, Guilbeault was asked about the oil and gas sector. He responded: “We are not trying to cap production. We will be capping the amount of pollution that comes from those sectors.”

The ERP document confirms that none of the government’s proposed new policies, including plans to subsidize large-scale deployment of Carbon Capture, Utilization, and Storage (CCUS) technology in the oil sands industry, are intended to bring about any decline in the currently projected growth of Canada’s oil production. Indeed, the text of the ERP affirms that the aim of government policy will be to continue to maximize production:

*The government will work closely with the provinces and the sector to manage competitiveness challenges, remain attuned to evolving energy security and climate risk considerations, maximize opportunities for ongoing investment in the sector, and minimize the risk of carbon leakage. The intent of the cap is not to bring reductions in production that are not driven by declines in global demand. Mechanisms like the CCUS investment tax credit will help support decarbonization.*

— 2030 Emissions Reduction Plan, March 29, 2022, p.53 (emphasis added)

The government’s plan is clear: Canada’s oil production will continue to increase until – and if – other countries eventually begin to consume less oil. In the meantime, Canada’s production levels will be guided solely by “global demand”.

## 7. Large-scale deployment of CCUS technology will not address our predicament

No amount of further technological improvements in the oil sands industry, not even large-scale adoption of CCUS at all oil sands production sites, will appreciably lower the total amount of emissions that will be released into the atmosphere from oil sourced from Canada’s oil sands. Our predicament is that over 85% of the life-cycle emissions occur *after the extraction process is completed*, after we export our oil, when it is burned as fuel in cars and trucks (“downstream emissions”) and released into the atmosphere as tailpipe emissions. There is no existing technology that can “remove” those downstream emissions from the atmosphere once they are released. “Direct air removal” technologies do not exist.

Life-cycle emissions for all types of oil produced around the world range from a low of about 450 kg CO<sub>2</sub> per barrel up to a high end of about 650 kg CO<sub>2</sub> per barrel. Total life-cycle emissions per barrel (also sometimes called “well-to-wheels emissions”) comprise all emissions released during the entire production and consumption cycle of the product. Canadian oil sands are at the higher end of that range, above 550 kg CO<sub>2</sub> per barrel, including emissions from the production process in Alberta, refining the product (which mostly occurs in the U.S. after we export our raw bitumen), shipping and distribution, and final consumption as fuel.<sup>10</sup> Given that oil sands extraction emissions average 80 kg CO<sub>2</sub> per barrel<sup>11</sup> (“upstream emissions”), they account for less than 15% of the total life-cycle emissions released by each barrel we produce.

The government does not publicly disclose any official data about the amount of the downstream emissions released every year by our exported oil. But based on information obtained last year

from the Federal Government, we know that the downstream emissions from our exported oil reached 706 Mt in 2019 – almost as much as the entire volume of emissions released by all economic activities within Canada’s borders that year.<sup>12</sup> Our total domestic emissions reached 738 Mt in 2019, including all of our transportation emissions, emissions from all oil and gas production activities within Canada, and all heavy industry operations, heating buildings, agriculture, and forestry.

The downstream emissions, which are about 6 times larger than the amount of the domestic emissions released within Canada during the oil extraction process (the upstream share for oil sands production was 83 Mt in 2019), do not get counted in our national emissions, and we do not include them in setting Canada’s emissions reduction targets. Yet the scientific evidence is clear that cumulative global emissions are driving the warming of the atmosphere, and that includes the downstream emissions. Reliance on CCUS and other technologies to reduce domestic emissions from oil production activities within Canada by 2030 will not do anything to curb or reduce the massive global footprint of our downstream emissions – which will continue to grow as our oil production rises over the next eight years.

By 2030, rapid deployment of CCUS will only achieve domestic emissions reductions in the order of 7 Mt to 15 Mt.<sup>13</sup> Capturing as much as 15 Mt by 2030 (representing 18% of the emissions from the oil sands production process in Alberta) would have only a minimal impact on the overall magnitude of the emissions released into the atmosphere by our exported oil.

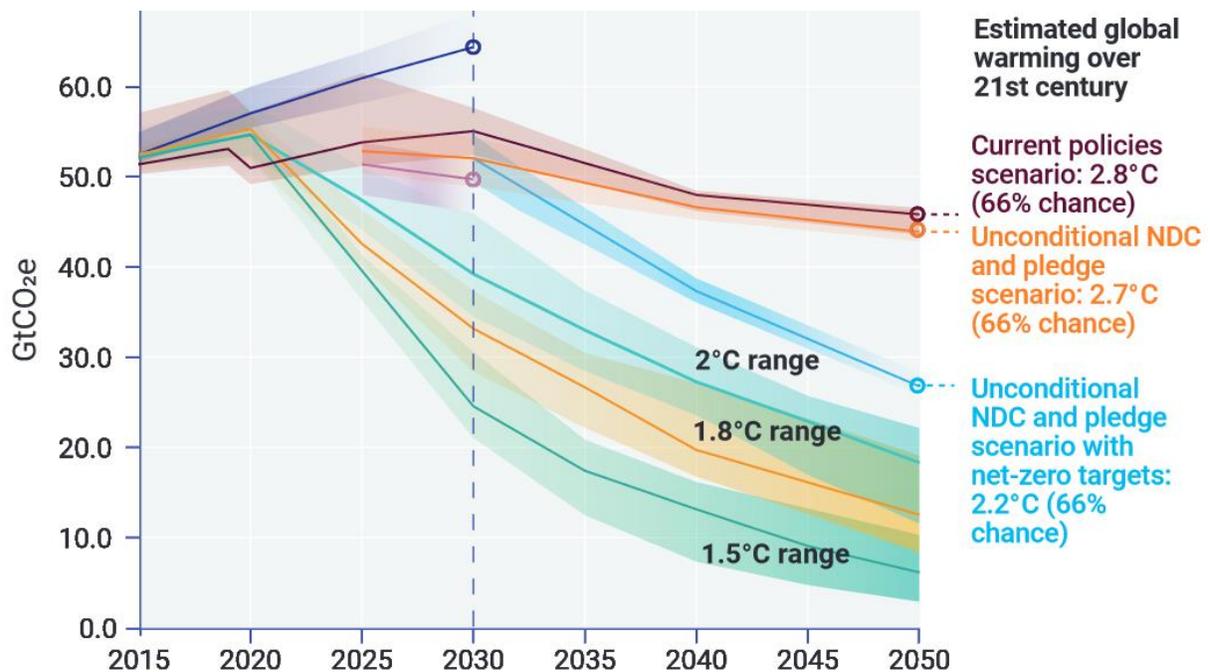
At best, by 2030 very rapid and large-scale adoption of CCUS could reduce the overall emissions (total life-cycle emissions per barrel) of our exported oil by 2 – 3%. But if our oil production continues to expand rapidly to 2030, as we are currently planning to do, there will be no benefit at all. Given that Canada’s oil production is projected to increase about 26% by 2030 above the 2019 level, the total volume of downstream emissions from our exported oil will increase proportionately: the downstream combustion emissions will grow from the current level of about 700 Mt to an annual level somewhere above 850 Mt by 2030. That growth will far exceed the amount of any emissions reductions that can be achieved in our domestic oil and gas sector by 2030. Any reductions to our upstream emissions achieved by CCUS will be more than offset by much higher downstream emissions.

## 8. The unforgiving 2030 deadline

Canada’s new *Emissions Reduction Plan* makes no reference at all to the global context of our climate predicament. Neither you, nor Minister of Environment Guilbeault, in any of your recent public statements and press conferences have made a single mention of the extreme gravity of the deadline we face in terms of the ongoing growth of global emissions.

The information is readily available. One of the leading sources is the *Emissions Gap Report* which is published annually by the UN. The *UN Emissions Gap Report 2021*, released on October 26, 2021, provides a comprehensive analysis of our situation.<sup>14</sup> Figure D below, reproduced from the *Emissions Gap Report*, explains the scale of the deep and rapid emissions cuts required by 2030 to give us any realistic chance of keeping the earth’s average surface temperature increase to 1.5°C, or 2°C.

**Figure D: Global greenhouse gas emissions under scenario and the emissions gap to 2030**



Source: *UN Emissions Gap Report 2021*, October 2026, Figure ES.6, p. XXV

In 2019 the annual level of global emissions reached 51.5 GtCO<sub>2</sub>eq. They dropped significantly in 2020 due to the economic impact of COVID-19 (indicated by the sharp break in the black line marked “current policies scenario”) but resumed their growth again in 2021. But as the orange line on the graph shows, tragically, the combined Nationally Determined Contributions (NDCs) promised by all countries up to October 2021 are not remotely close to providing the enormous emissions reductions needed by 2030. The discrepancy is the “emissions gap”.

Even with the full implementation of all NDCs promised by all countries by 2030 (including Canada’s promised 40% reduction), global emissions are on track to reach 52 GtCO<sub>2</sub>eq by 2030. The annual level of global emissions will therefore be higher in 2030 than it was in 2019. That level of global emissions by 2030 will put us on a pathway to a temperature increase of 2.7°C above pre-industrial levels (depicted on Figure D by the orange line and the notation “unconditional NDC and pledge scenario: 2.7°C (66% chance)”.

To stay on a pathway to limit the warming increase to 1.5°C requires that the annual level of global emissions be reduced to 25 GtCO<sub>2</sub>eq between now and 2030, which means cutting the current level of global emissions by 28 GtCO<sub>2</sub>eq. That is the “emissions gap” to 1.5°C. It is equivalent to achieving a 50% reduction of all emissions world-wide within the next eight years.

To stay on a pathway to give us a realistic chance to keep temperature increase to less than 2°C, the annual level of global emissions must by 2030 be cut to an annual level of 39 GtCO<sub>2</sub>eq, an emissions gap of 13 GtCO<sub>2</sub>eq. Closing the emissions gap by 2030 will require an epochal change of course.

The above graph provides the context that explains why global oil production must sharply decline by 2030 and why it must decline even more deeply by 2040. Burning fossil fuels (coal, oil, and natural gas) accounts for about 70% of total global emissions every year. Oil alone accounts for about one-third of that amount. Coal use has been slowly declining (in the richest advanced industrial economies) but natural gas use is rising. The deep emissions cuts required by 2030 cannot be achieved if global oil production continues to increase.

None of this information about the global emissions gap and the prominent role of Canada's oil exports in driving global emissions is included in your government's new *Emissions Reduction Plan*. The ERP promises to reduce Canada's domestic emissions 40% by 2030. But, as the above graph shows, even if that is successfully done it still leaves us on a path to 2.7°C. The ERP does not mention any of that.

Canada provides about 5% of global oil supply. We are the world's 4<sup>th</sup> largest oil producer and we export most of it. Canada's growing oil production, which significantly contributes to the ongoing rise of global oil production, is materially diminishing any remaining chance we have of closing the emissions gap by 2030. The terrible risk and burden of catastrophic and irrevocable climate breakdown is being quietly shifted to the world's children, in exchange for our own immediate financial gain from our expanding oil production.

## 9. Conclusion: an independent inquiry is required

In your capacity as Minister of Natural Resources, you belatedly instructed the CER on December 16, 2021, to conduct an internal study to determine what future level of oil production in Canada would be safely aligned with a global effort to limit warming to 1.5°C. We are now told that the result of that study will be available in early 2023.

That is the kind of study that should have been undertaken seven years ago, before your government on November 29, 2016, committed itself to the construction of a massive expansion of Canada's pipeline capacity to export an additional 910,000 bpd of exported oil. At the very least, it should have been initiated three years ago, immediately after the IPCC issued its *Special Report on Global Warming to 1.5°C* in October 2018, which warned governments unequivocally that to stay on a pathway to keep temperatures within the 1.5°C warming threshold, global emissions must be cut 50% by 2030.<sup>10</sup> Your inaction has been unforgivable.

But this crucial study should not be left to the Canada Energy Agency. It is wrong to leave an inquiry on a question of this gravity, which is so irrevocably consequential to our children, to the CER, which is an agency of the Federal Government and entirely unaccountable to the public. You as Minister have assigned this task to an anonymous group of Federal Government employees and others selected and contracted by the government to provide information and expert evidence behind closed doors.

Under this arrangement, there will be no hearings, no cross-examination, no public record of proceedings, and no media access. There will be no lawful avenue for a Canadian citizen to scrutinize the sources and evidence that is being considered by the CER, or legally challenge the

evidence, the process, or the findings. The CER will quietly decide behind closed doors what evidence it will look at, and what lines of inquiry it will ignore.

The issue at stake, the future path of Canada's oil production to 2030, 2040, and 2050, is too deeply enmeshed in the conflicted economic and political interests of government and the oil industry to be entrusted to a secretive process out of the public view.

A proper examination of this crucial question must be done by an independent *public* inquiry process. That is our guarantee that the evidence will not be pre-selected or "cherry-picked". There must be an opportunity for Canadians to challenge and cross-examine the experts, and an opportunity to call other expert witnesses who may disagree with those who have been selected by the government. The process must be able to test and challenge the experience and skills of those who are selected as expert witnesses and scrutinize their affiliations and independence. The integrity of the process must also be protected by the basic principles of judicial independence, so we can be confident that the decision makers are not being influenced by pressures, discussions, or other sources of information that have not been tested in public view.

Yours truly,

Roz Isaac

Jennifer Nathan

David Gooderham

cc. Steven Guilbeault. Minister of Environment and Climate Change

## NOTES

1. *Net-Zero by 2050: A Roadmap for the Global Energy Sector*, International Energy Agency (IEA), May 18, 2021: <https://iea.blob.core.windows.net/assets/4719e321-6d3d-41a2-bd6b-461ad2f850a8/NetZeroBy2050-ARoadmapfortheGlobalEnergySector.pdf>. The IEA's *World Energy Outlook 2021* report, released October 12, 2021, provides a further comprehensive analysis of the massive scale of the transition that will be required in all sectors of the world economy (transportation, electricity generation, industry, etc.) which at present relies on coal, oil, and natural gas to supply 80% of our primary energy: <https://iea.blob.core.windows.net/assets/4ed140c1-c3f3-4fd9-acae-789a4e14a23c/WorldEnergyOutlook2021.pdf>
2. SEI, IISD, ODI, E3G and UNEP. (2021) *The Production Gap Report 2021*. <https://productiongap.org/2021report/>. Prepared by United Nations Environment Programme, Stockholm Environment Institute, International Institute for Sustainable Development, and other research organizations and universities.
3. *2030 Emissions Reduction Plan*, Environment Canada , March 29, 2022: <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/erp/Canada-2030-Emissions-Reduction-Plan-eng.pdf>
4. National Inventory Report 1990 – 2020: Greenhouse Gas Sources and Sinks in Canada, Environment and Climate Change Canada, April 14, 2022: <https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/sources-sinks-executive-summary-2022.html> . This new report provides the most recent accounting of Canada's current domestic emissions. Canada's new emissions plan promises a 40% reduction of domestic emissions by 2030, below the 2005 level. Emissions in 2005 were 741 Mt. They reached 738 in 2019, which was a 0.5% reduction below the 2005 level over fourteen years. Meeting the 2030 target will require an absolute reduction of 295 Mt below the 2019 level. With the onset of the COVID pandemic, Canada's emissions dropped to 672 Mt in 2020. That 8.9% decline reflected the collapse of economic activity, principally in the transportation sector. It is anticipated that emissions will be back close to the 2019 level by the end of 2022, as economic growth resumes.
5. *Canada's Energy Future 2021*, CER, December 9, 2021: <https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2021/canada-energy-futures-2021.pdf>
6. Letter sent December 16, 2021 by the Minister of Natural Resources to the CER requesting that it “undertake scenario analysis” relating to Canada's future oil production: <https://www.cer-rec.gc.ca/en/about/news-room/whats-new/2021/canadas-energy-future-report-minister-letter-to-cer-16-december-2021.pdf>.
7. An environmental assessment of the Bay du Nord project was completed in December 2021: see “Bay du Nord Development Project”, Environmental Assessment Report, <https://iaac-aeic.gc.ca/050/documents/p80154/143494E.pdf>. The report was prepared by the Assessment Agency of Canada pursuant to the Canadian Environmental Assessment Act, 2012 (CEAA 2012). Under the terms of the legislation that governed the Bay du Nord project review,

however, the assessment was not required to consider (and did not consider) the climate impact of the greenhouse gas emissions that will be released into the atmosphere from the crude oil extracted over the next 30 years from this new oil field, exported, and ultimately combusted as fuel. The project is expected to commence production in 2028. No assessment was made whether this new production is aligned with a 1.5°C world. Notwithstanding the complete exclusion of climate impact evidence, the December 2021 assessment report concluded the project will have “no significant environmental impact”. The cabinet made the final decision to approve the project April 6, 2022

8. Letter July 8, 2021, sent by twenty-one energy economists and climate scientists to the Minister of Environment and Climate Change, to the Minister of Natural Resources, and to the Chair and CEO of the Canada Energy Agency: <https://www.linkedin.com/pulse/canadas-energy-regulator-should-develop-net-zero-letter-mark-winfield>.
9. Kathryn Harrison, Mark Jaccard, Nicholas Rivers, and Angela Carter, “Canada’s energy regulator turns a blind eye to dangerous global warming”, December 14, 2021: <https://www.nationalobserver.com/2021/12/14/opinion/canadas-energy-regulator-turns-blind-eye-dangerous-global-warming>
10. *The oilsands in a carbon-constrained Canada*, Pembina Institute, Benjamin Israel et al, February 2020: <https://www.pembina.org/reports/the-oilsands-in-a-carbon-constrained-canada-march-2020.pdf>
11. *National Inventory Report*, April 15, 2021, pp. 55-56.
12. The downstream emissions from our exported oil are currently more than 700 Mt annually. Although the government does not publicly disclose that data, in response to a formal petition by Ecojustice Canada demanding answers to a series of specific questions, Environment Canada recently disclosed information showing that the annual emissions from combustion of our exported crude oil in the years 2016, 2017, 2018, and 2019 were 577.0, 601.5, 682.4. and 706.9 Mt CO<sub>2</sub> respectively. Ecojustice posted that data on July 30, 2021, see Ecojustice, *To avoid climate catastrophe, Canada must account for its hidden emissions*, Fraser Thomson, <https://ecojustice.ca/to-avoid-climate-catastrophe-canada-must-account-for-its-hidden-emissions/>; also <https://www.nationalobserver.com/2021/07/27/opinion/canada-hidden-fossil-fuel-emissions-avoid-climate-catastrophe> . Environment Canada also disclosed that total downstream combustion emissions from all types of Exported Fossil Fuel exported by Canada (including natural gas and coal) reached 954.3 Mt CO<sub>2</sub> in 2019.

If Canada’s oil production expands by another 26% to 2030, as currently projected in the government’s *2030 Emissions Reduction Plan* (ERP) published on March 29, 2022, the annual level of Canada’s “exported emissions” from our oil production will rise proportionately, from 706 Mt in 2019 by an additional approximate 150 Mt by 2030, to around 850. That increase in our downstream emissions will offset about half of our entire promised domestic emissions reductions to 2030. The government promises to cut Canada’s domestic emissions 40% by 2030 below the 2005 level, which will require total reductions

of 295 Mt below the 2019 level. That promise ignores the rising combustion emissions from our exported oil, which will simultaneously increase by about 150 Mt.

None of this information about the downstream emissions from our exported oil is mentioned in the ERP document, or in the CER's annual reports, or in the various statements made by Ministers in Parliament about planned developments in Canada's oil and gas sector.

13. A consortium of oil sands producers say they will be able to reduce their emissions by 22 Mt annually by 2030, but that number has not been supported by any detailed studies and only a portion of that cut relies on CCUS. The Federal Government has not released any analysis or data showing the magnitude of the emissions reductions that CCUS technology might achieve by 2030 in the oil and gas sector (the March 29, 2022 ERP document offers no details). Recent analysis by the Pembina Institute concludes that CCUS could achieve emissions reductions of 7 Mt – 15 Mt in the oil sands sub-sector by 2030: “Getting on Track: a primer on challenges to reducing carbon emissions in Canada’s oil sands: <https://www.pembina.org/reports/getting-on-track.pdf> ; and “Decarbonizing Canada’s oil and gas supply”, March 21, 2022: <https://www.pembina.org/reports/decarbonizing-canadas-oil-and-gas-supply.pdf>
14. *UN Emissions Gap Report 2021*, October 26, 2021; <https://www.unep.org/resources/emissions-gap-report-2021>