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## The Defence of Necessity and Addressing Climate Change: A Canadian Case

David Gooderham

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**THE DEFENCE OF NECESSITY AND ADDRESSING CLIMATE  
CHANGE: A CANADIAN CASE\***

**David Gooderham<sup>†\*</sup>**

*There are times when we must disobey the law. If we are lucky, we may live our entire lives without being confronted by such a time. I don't believe that, for most people, respect for the law derives from the threat of punishment, even severe punishment. People respect and honour the law because they trust and have confidence in its process. At its best, we have confidence that the law has an extraordinary integrity and capacity to address the most complex and vexing conflicts—ones that often threaten the most vulnerable, those who have little power or influence, or no power at all.*

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\* David A. Gooderham, Esq., Closing Address at the 38<sup>th</sup> Public Land Law Conference, *Carved by Glaciers: Stewardship Across the Northern Rockies*, at the Alexander Blewett III School of Law at the University of Montana (Oct. 4, 2019).

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## I. INTRODUCTION

I have been convicted of criminal contempt of court for acting to halt the construction of the Trans Mountain Pipeline expansion. I am not alone; about 240 other people were arrested last year in British Columbia for steps they took to oppose that project. On December 3, 2018, in a joint application with my co-accused, Jennifer Nathan, we sought leave to raise the common law defence of necessity at our trial, and for permission to call expert evidence at trial about climate change and the emissions implications of continuing to expand Canada's oil sands industry. After a two-day hearing, the presiding judge, Justice Affleck, dismissed our application. We were convicted at a further hearing on March 11, 2019. We have launched an appeal of that decision to the Court of Appeal for British Columbia.<sup>1</sup>

One of the unusual features of this application is that we were not permitted to call any actual evidence (i.e., sworn affidavits or oral testimony from leading climate scientists and energy economists). We were only allowed to provide the court with an "outline"<sup>2</sup> or written summary of the evidence *we proposed to call*. Our application, presented to the court on December 3–4, 2018, was therefore a preliminary application to obtain the court's "leave" or permission to call the needed scientific evidence at our trial.

I offer below some comments on the proposed evidence we have presented to the B.C. court in this case. We show the failures of Canada's environmental review process for the Trans Mountain project. The process refused to address whether the planned expansion of oil sands production to 2040 could be consistent with Canada's commitments under the Paris Agreement to keep the increase in global warming to within the 1.5°C or 2°C limits.

My working life was as a lawyer in civil litigation for 35 years. I retired from practice at the end of 2012. The benefit of that background allowed me to see the enormous promise that the judicial process offers, if it can be engaged, to bring this troubling evidence to an open public hearing. In our government, nobody wants to talk about the rapid pace of the

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1. Her Majesty the Queen v. David Anthony Gooderham and Jennifer Nathan (Can. B.C. Court of Appeal, Nos. CA45950 & 45953). The Notice of Appeal was filed March 11, 2019. Appellants' factum was filed on November 18, 2020. The hearing is set for May 26, 2020.

2. Appellants' Outline of Proposed Evid. (Dec. 3, 2018), <https://da-gooderham.com/legalaction/outline-of-proposed-evidence/>.

advancing climate peril. But to reveal the full gravity of our problem, there is no better forum than the courts because people have to tell the truth.

## II. CANADA'S EMISSIONS SITUATION<sup>3</sup>

In terms of its annual emissions, Canada is about one-ninth the size of the United States—716 million tonnes (Mt) in 2017 compared to 6.4 billion tonnes, or roughly equivalent to one of the largest emitting American states (i.e., California or Texas). Canada accounts for 1.6% of annual global emissions—but is the world's tenth largest emitter.

Proponents of oil sands expansion often say that Canada's share of global emissions is so small that anything we do is of no consequence. Let us pause to consider the “smallness of Canada.” The point is that no player is “small” in our current predicament. There are four big emitters: China, the United States, Europe, and India. They account for about 60% of annual global emissions. The world needs to achieve absolute reduction in the range of 25% to 50% below current levels within the next 11 years to stay within 1.5 or 2°C. That requires *all countries worldwide* on average to reduce their emissions by 25% to 50%. But the evidence is clear that two of the world's largest emitters, China and India, and also many of the poorest countries, will achieve *no absolute reductions at all below their current levels before 2030*.

So, there is no realistic hope of mitigating the impending dire outcome unless Canada and other wealthy, technologically advanced mid-size economies achieve their own deep cuts over the next eleven years. The dilemma for Canada is that it has a disproportionately large oil and gas sector. Oil and gas is Canada's largest emitting sector (26% of our annual total)—whereas, in the United States and in most other advanced economies, the largest emitting sector is transportation. Canada's oil and

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3. See, e.g., Env't & Climate Change Can., *National Inventory Report 1990–2016: Greenhouse Gas Sources and Sinks in Canada*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE (Apr. 13, 2018), <https://unfccc.int/documents/65715>; Env't & Climate Change Can., *Canada's 7th National Communication and 3rd Biennial Report*, U.N. FRAMEWORK CONVENTION ON CLIMATE CHANGE (Dec. 29, 2017), [https://unfccc.int/files/national\\_reports/national\\_communications\\_and\\_biennial\\_reports/application/pdf/82051493\\_canada-nc7-br3-1-5108\\_eccc\\_can7thncomm3rdbi-report\\_en\\_04\\_web.pdf](https://unfccc.int/files/national_reports/national_communications_and_biennial_reports/application/pdf/82051493_canada-nc7-br3-1-5108_eccc_can7thncomm3rdbi-report_en_04_web.pdf); Env't & Climate Change Can., *Review of Related Upstream Greenhouse Gas Emissions Estimates*, IMPACT ASSESSMENT AGENCY OF CAN. (Nov. 25, 2016), <https://iaac-aeic.gc.ca/050/documents/p80061/116524E.pdf>; Alberta, *Climate Leadership Plan Progress Report*, ALBERTA GOV. (Dec. 2017), <https://open.alberta.ca/dataset/854af86e-309a-4727-90f9-6bba947dc66e/resource/989797fb-b890-4f52-9e91-43938fff566f/download/clp-progress-report-2016-17.pdf>.

gas sector is projected to show no decline in total emissions by 2030, below the present level (yes, some producers will achieve credible reductions in *emissions per barrel*, but the number of barrels is rising). The expansion of the oil sands accounts for virtually all of the growth in Canada's oil and gas sector emissions between 2005 and 2030.

Because of geography and the economics of transporting bitumen, the projected expansion of oil sands production to 2030 and 2040 depends on new pipeline capacity. It depends critically on two proposed new pipelines in Canada—Trans Mountain and a second new project, Line 3. The proponents of further expansion also hope to see the early completion of Keystone XL. That dependency on new pipelines is all the more acute because the costs of production per barrel in Alberta are comparatively high—and using rail adds about \$10 per barrel more.

Canada is not on track to meet its reduction commitments by 2030 under the Paris Agreement, which promises a 30% cut below the 2005 level. Canada's total emissions by 2020 are projected to be only about 2% less than in 2005. In April 2019, the Government of Canada published its most recent emissions data to 2017. The numbers show that in the period from 2005 to 2017, Canada achieved a creditable 45 Mt reduction of annual emissions in our electricity sector (by far the largest source of emissions reductions in the country). But over the same period, from 2005 to 2017, the annual level of emission from the oil sands extraction increased by 45 Mt—entirely cancelling out all gains from the transformation of Canada's electricity sector.

In our case, we are relying on the common law defence of necessity, which holds that in a situation where there is "a clear and imminent peril," conduct disobeying the law undertaken by a citizen to avoid the peril may be excused from criminal liability.<sup>4</sup>

At this preliminary application for leave to raise the necessity defence, we were not obliged to prove, on a balance of probabilities, that there exists an "imminent peril." The test we had to meet, in order to be allowed to call the required evidence, was simply to demonstrate (based on the material in our Outline of Proposed Evidence) that there is an *air of reality* (a legal expression)<sup>5</sup> to our belief that advancing climate change is an imminent peril within the meaning of the law, and that our belief is reasonable, based on the available objective evidence (set out in our summary of expert evidence of climate scientists and energy economists).

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4. Regina v. Latimer, 2001 SCC 1, at ¶ 29 (quoting Morgentaler v. The Queen, [1976] 1 S.C.R. 616, at p. 678); see Perka v. The Queen, [1984] 2 S.C.R. 232.

5. See R. v. Osolin, [1993] 4 S.C.R. 595, at 676.

That test, an air of reality, is a relatively low threshold of proof. To meet that test, the judge needed only to be satisfied that our case about the impending threat of advancing climate change is not *fanciful*, and that if the proposed scientific evidence set out in the Outline were to be actually heard at trial—and assuming it is accepted as credible by the trial judge—the trial judge *could* decide, based on that evidence, that our belief we are facing an “imminent peril” is reasonable.

### III. GLOBAL CONTEXT: PROPOSED EVIDENCE

The Outline shows that even if all countries in the world (including Canada) were to fully implement all the commitments they have already made under the Paris Agreement to reduce their own national emissions by 2030 (referred to as their Nationally Determined Contributions or “NDCs”), the surface of the earth by 2030 will still be irrevocably committed to warming that will far exceed the promised 2°C threshold. The *UN Emissions Gap Report 2017*, cited in the Outline, explains the importance of the next twelve years:

Looking beyond 2030, it is clear that if the emissions gap is not closed by 2030, it is extremely unlikely that the goal of keeping warming to well below 2°C can still be reached. Even if the current NDCs are fully implemented, the carbon budget for limiting global warming to below 2°C will be about 80% depleted by 2030. Given currently available carbon budget estimates, the available carbon budget for 1.5°C warming will already be well depleted by 2030.<sup>6</sup>

The emissions “gap” is the difference between the currently projected level of global emissions in 2030 (assuming that all existing NDCs are fully implemented) and the much lower level of global emissions required to keep warming “well below 2°C.” The UN report concludes that, at present, we are on a path to more than 3°C warming.

To stay below 2°C, the annual level of global emissions must decline from the currently projected 2030 level of 55.2 billion tonnes of CO<sub>2</sub>eq (GtCO<sub>2</sub>eq) down to an annual level of 41.8 GtCO<sub>2</sub>eq or less—a

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6. *Emissions Gap Report 2017*, UN ENVIRONMENT PROGRAMME ixv, <https://www.unenvironment.org/resources/emissions-gap-report-2017> (Nov. 2017).

reduction of 13.4 GtCO<sub>2</sub>eq—*requiring cuts by all emitting countries averaging 25% worldwide*. To stay below 1.5°C, the annual level of global emissions must decline by about *50% below current levels* by 2030.

There are no existing commitments by signatories to the Paris Agreement to make additional reductions to their national emissions, which might even partially close that gap. In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change concluded that the only pathways consistent with keeping warming below 2°C require *emissions reductions on a global scale starting by 2020*.<sup>7</sup> We have presented the court with a summary of the most recent available evidence showing baseline (“business-as-usual”) projections of future emissions growth, looking at the period to 2030. The available evidence shows that even if all signatories to the 2015 Paris Agreement fully implement all their promised NDCs, the level of global emissions is *projected to rise 6% above the 2016 level*.

Oil accounts for 34% of global CO<sub>2</sub> emissions from burning fossil fuels. Although emissions from coal burning (40% of the total) are beginning to decline, coal demand increased by 1% in 2017. Emissions from natural gas (19%) are increasing—and expected to continue to increase for at least another decade. The “450 Scenario” published in the IEA’s *World Energy Outlook 2015* is based on a 50-50 chance of keeping warming below the 2°C threshold.<sup>8</sup> It concludes that, to meet that goal, *global oil consumption* would have to start to decline by 2020.

Notwithstanding the need to curb oil consumption starting in 2020 to meet the 2°C limit, the Appellants’ Outline shows that global oil consumption in all baseline studies is projected to *continue increasing to 2040*. The world’s six or seven major oil-producing countries, including Canada, are intent on continuing to expand oil production to 2040 and, in the case of Canada, are currently building new infrastructure to facilitate that expansion.

The window of opportunity to close the emissions “gap” is brief and unforgiving. Unprecedented cuts in the annual level of emissions would have to start on a global scale by 2020 and be repeated every year through the next decade. In the absence of deep cuts in the annual level of

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7. *Fifth Assessment Report*, IPCC, <https://www.ipcc.ch/assessment-report/ar5/> (2014); *see also Climate Change 2014 Synthesis Report*, IPCC, <https://ar5-syr.ipcc.ch> (2015).

8. *World Energy Outlook 2015*, INT’L ENERGY AGENCY (Nov. 10, 2015), <https://www.iea.org/reports/world-energy-outlook-2015>.

global emissions within that timeframe, by 2030 the atmospheric concentration level will have exceeded 450 parts per million (“ppm”) CO<sub>2</sub>eq, which irrevocably commits us to warming above 2°C.

That is the proposed evidence we presented to the court.

The atmospheric carbon concentration reached 405 ppm in 2017. It is now rising 20 ppm per decade. In recent years, the annual increase has been higher—rising 3.0 ppm in 2016.

Further, the proposed evidence in our case shows that two of the world’s four largest emitting economies are projected to contribute relatively little or nothing to future cuts to 2030. China, the world’s largest emitter (28% of the global total), is expected to achieve no significant reduction in the annual level of its emissions before 2030. India’s emissions (7% of the global total) will continue to grow to 2030. India’s emissions are 1.8 tonnes of CO<sub>2</sub> (tCO<sub>2</sub>) per person, compared to 16.6 tCO<sub>2</sub> per person for the USA and 7.2t CO<sub>2</sub> for China. Very low per capita emissions reflect severe poverty, leaving poorer countries no margin to further reduce their total emissions. Any deep reductions of global emissions (cuts in the order of 25% to 50% on a global average) will therefore have to come disproportionately from a smaller number of technologically advanced countries. For that reason, emissions reductions in Canada are crucial.

#### IV. THE DECISION IN OUR CASE

At the conclusion of our hearing on December 4, 2018, the presiding judge rejected our application to call evidence on the emissions implications of the Trans Mountain expansion.<sup>9</sup> In his reasons for judgment, issued six weeks later, Justice Affleck found that there is a “contingency” that any dire climate outcome can still be avoided:

On the evidence the applicants seek to offer, rising global temperatures, to a level that is catastrophic to life, is a process that has been happening over many decades. Despite a historical lack of initiative to curb emissions over these same decades, adaptive societal *measures may be taken to prevent such a dire outcome*. Whether government, pri-

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9. Trans Mountain Pipeline ULC v. Mivisair, 2019 BCSC 50, at ¶ 55 (citing *Latimer*, at ¶ 29) (emphasis added).



vate industry, and citizens take these measures is a *contingency* that takes these consequences outside of “virtual certainty” and into the realm of “foreseeable or likely.”<sup>10</sup>

Thus, the judge concluded that “a dire outcome” is not “virtually certain.”

The substance of our case is that any increase in the earth’s average surface temperature that exceeds 1.5°C will be a dire outcome—bringing devastating and irreversible impacts on human life and natural systems, impacts that are already far advanced. The losses will be catastrophic as the warming of the earth approaches and exceeds 2°C. Our proposed evidence shows that, at present, we are on a path to more than 3°C. The annual level of global emissions is still increasing.

A contingency, if it is very slight (like the contingency we have of winning the lottery), cannot be material in deciding in this case that the climate peril can be avoided. The judge made no finding about the degree of likelihood that the hoped-for contingency will occur. The judge erred in drawing an inference, unsupported by evidentiary material, that such a “contingency” exists. That is our submission on this appeal.

## V. REVIEW PROCESSES

The core question underlying this case is whether the planned expansion of Canada’s oil sands production to 2040 is compatible with our commitment under the Paris Agreement to limit the increase in global average temperature to “well below 2°C” and make our best efforts to limit the increase to 1.5°C. We can measure the integrity and strength of our legal culture by examining how the approval process for the Trans Mountain project dealt with that question.

Three years ago, Canada authorized the construction of this project. The order that lies at the root of that decision is an Order in Council dated November 29, 2016.<sup>11</sup> The Trans Mountain project—together with a second new project called Line 3—will provide 50% of the additional pipeline capacity needed to drive the continued growth of Canada’s oil sands production to 2040.

The Order in Council stated that the Government of Canada was “satisfied” that this pipeline expansion project is “*consistent with Canada’s commitments* in relation to the Paris Agreement on Climate

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10. *Id.* (emphasis added).

11. Order in Council P.C. 2016-1069, NAT. ENERGY BD. ACT (Nov. 29, 2016), <http://www.gazette.gc.ca/rp-pr/p1/2016/2016-12-10/html/sup1-eng.html>.

Change.”<sup>12</sup> That is obviously a crucial statement. The Order provided the ethical foundation, not just the legal foundation, for the pipeline approval decision. In authorizing Trans Mountain, the Order cited three reports that, it declared, had furnished the evidence relied on by the cabinet to justify their decision.

A. *National Energy Board Inquiry Report (May 19, 2016)*

On May 19, 2016, the National Energy Board (“NEB”) issued a report recommending approval of the Trans Mountain project, following a lengthy inquiry through 2014 and 2015.<sup>13</sup> It 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. The inquiry excluded all evidence about greenhouse gas emissions in Alberta—and excluded all scientific evidence about the impact of emissions on the climate system.

Two years earlier, on April 2, 2014, when it issued the Hearing Order for the Project which included the List of Issues, the NEB excluded from the List of Issues the environmental effects associated with upstream activities and development of the oil sands, including GHG emissions. The City of Vancouver at that time applied for an order expanding the List to include those issues.

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.<sup>14</sup> The substance of the ruling was that environmental impacts of that kind are not “directly related” to the

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12. *Id.* (emphasis added).

13. *NEB Report on Trans Mountain Expansion Project, OH-001-2014*, NAT. ENERGY BD. (May 19, 2016) (Doc. No. A77045-1), [https://docs2.cer-rec.gc.ca/ll-eng/llis-api.dll/fetch/2000/90464/90552/548311/956726/2392873/2969696/2969867/A77045%2D1\\_NEB\\_%2D\\_Report\\_%2D\\_Trans\\_Mountain\\_%2D\\_Expansion\\_Project\\_%2D\\_OH%2D001%2D2014.pdf?nodeid=2969681&vernum=-2](https://docs2.cer-rec.gc.ca/ll-eng/llis-api.dll/fetch/2000/90464/90552/548311/956726/2392873/2969696/2969867/A77045%2D1_NEB_%2D_Report_%2D_Trans_Mountain_%2D_Expansion_Project_%2D_OH%2D001%2D2014.pdf?nodeid=2969681&vernum=-2).

14. *Ruling No. 25 on Trans Mountain Expansion Project, OH-001-2014*, NAT. ENERGY BD. at 3 (July 23, 2014) (Doc. No. A63-1), [https://docs2.cer-rec.gc.ca/ll-eng/llis-api.dll/fetch/2000/90464/90552/548311/956726/2392873/2449981/2487600/A63%2D1\\_%2D\\_Ruling\\_No.\\_25\\_%2D\\_A3Z5I4.pdf?nodeid=2487522&vernum=-2](https://docs2.cer-rec.gc.ca/ll-eng/llis-api.dll/fetch/2000/90464/90552/548311/956726/2392873/2449981/2487600/A63%2D1_%2D_Ruling_No._25_%2D_A3Z5I4.pdf?nodeid=2487522&vernum=-2) (emphasis added).

Project: “The Project does not include upstream production and is not dependent on any particular upstream development and, therefore, any link to environmental changes caused by such upstream production is indirect and not necessarily incidental to Project approval.”<sup>15</sup>

On October 16, 2014, the Federal Court of Appeal (FCA) dismissed an application by the City of Vancouver for leave to appeal NEB Ruling 25.<sup>16</sup> Other parties also challenged the exclusion of climate evidence. All lawful avenues to raise questions concerning the emissions and climate implications of the proposed Trans Mountain expansion project by participating in the NEB inquiry process were effectively closed by reason of the above rulings and orders. When the NEB recommended approval of the project on May 19, 2016, the report did not discuss emissions or climate.

*B. Trans Mountain Upstream Emissions Report (November 25, 2016)*

The second review process was the so-called “upstream emissions assessment” for the Trans Mountain project, officially called the “Review of Related Greenhouse Gas Emissions Estimates for the Trans Mountain Expansion Project.”<sup>17</sup> The purpose of the assessment was briefly described in a January 2016 announcement: “Assess the upstream greenhouse gas emissions associated with this project and make this information public.”<sup>18</sup> On March 19, 2016, the government quietly published details of the emissions assessment procedure in the *Canada Gazette* explaining the new procedure.<sup>19</sup>

The final upstream emissions report, publicly released on November 25, 2016, ultimately acknowledged that the annual level of oil sands emissions will rise from 90 Mt in 2020 to 116 Mt by 2030, and accepted that the expanded capacity of the Trans Mountain project will account for

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15. *Id.* (emphasis added).

16. Order Dismissing City of Vancouver Leave to Appeal Ruling No. 25, (F.C.A. Oct. 16, 2014) (No. 14-A-55).

17. *Trans Mountain Pipeline ULC – Trans Mountain Expansion Project Review of Related Upstream Greenhouse Gas Emissions Estimates*, ENV’T & CLIMATE CHANGE CAN. (Nov. 15, 2016), <https://iaac-aeic.gc.ca/050/documents/p80061/116524E.pdf>.

18. *Interim Measures for Pipeline Reviews*, GOV’T OF CAN. (Jan. 27, 2016), <https://www.canada.ca/en/natural-resources-canada/news/2016/01/interim-measures-for-pipeline-reviews.html>.

19. Dep’t of Env’t & Climate Change, *Estimating Upstream GHG Emissions*, 150 CAN. GAZETTE 786, 787 (Mar. 19, 2016), <http://www.gazette.gc.ca/rp-pr/p1/2016/2016-03-19/pdf/g1-15012.pdf>.

13 Mt to 15 Mt of that growth. Yet the report stated, in its conclusions, that assuming long-term oil prices reach US\$80 or higher in the post-2020 period, any “incremental GHG emissions” attributed to the pipeline expansion will be “minimal.” That optimistic conclusion was incorporated into the language of the formal Order in Council dated November 29, 2016, which authorized the construction of the Trans Mountain project. The Order recited a brief summary of the upstream assessment report regarding the impact of the pipeline on Canada’s total emissions: “The assessment concluded that incremental emissions are unlikely to be expected as oil production is expected to grow by more than the capacity of the expanded line *regardless of whether the pipeline is built.*”<sup>20</sup>

This appeared to be an assurance that the Trans Mountain pipeline expansion would not cause higher emissions. That seemingly contradictory finding is explained by the methodology that governed the upstream emissions assessment. The methodology was prescribed in the five-page notice published in the *Canada Gazette* on March 19, 2016:

The assessment of upstream GHG’s will consist of two parts: (A) a *quantitative estimation* of the GHG emissions released as a result of upstream production associated with the project, and (B) a discussion of *the project’s potential impact on Canadian and global GHG emissions.*<sup>21</sup>

The document described the procedure as “the methodology.” The first step was to calculate the “estimated throughput” (i.e., how much diluted bitumen would be carried by the project). Part A of the assessment would calculate the total GHG emissions “associated with the project”—i.e., the volume of emissions generated every year in the course of producing the amount of bitumen that could be transported to markets by the new pipeline, if it were built. Part B of the assessment promised to provide Canadians with “a discussion of the project’s potential impact on Canadian and global emissions.” But the “methodology” designed for Part B of the assessment was formulated in a particular way, which fatally limited the

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20. Explanatory Note, Order in Council P.C. 2016-1069, NAT. ENERGY BD. (Nov. 29, 2016), <http://www.gazette.gc.ca/rp-pr/p1/2016/2016-12-10/html/sup1-eng.html> (emphasis added).

21. Dep’t of Env’t & Climate Change, *Estimating upstream GHG emissions*, 150 CAN. GAZETTE 786, 787 (Mar. 19, 2016), <http://www.gazette.gc.ca/rp-pr/p1/2016/2016-03-19/pdf/g1-15012.pdf> (emphasis added).

scope of the inquiry: “The second part of the analysis discusses the conditions under which the Canadian *upstream emissions estimated in Part A* could be expected to occur *even if the project were not built.*”<sup>22</sup>

The above wording meant that in looking at the impact of “the Project,” the assessment must ask this question: Will future increase in oil sands production (and therefore the future increase of emissions) made possible by the additional transport capacity of this project occur *even if the pipeline is not built?* Clear guidance is given on what steps the assessment must follow to answer that question: “The second step involves evaluating the technical and economic potential for alternate modes of transportation to be used in the absence of the proposed project.”<sup>23</sup>

Rail transport is of course the alternative. The assessment is therefore required to evaluate whether rail transport would be an economically viable method to transport the increased bitumen production to market and must look at the “economic and technical potential” of the alternate mode of transport. Rail transport is more expensive than pipelines (about US\$10 more per barrel, according to the assessment). The crucial question was whether long-term oil prices will be high enough to cover the extra cost of rail “in the absence of the proposed project.” The Trans Mountain report accepted evidence that oil prices at about \$80 per barrel or higher would make rail transport viable.

The March 18, 2016 notice stipulated how the assessment should proceed:

As an example, when considering *whether Canadian GHG emissions would increase* as a result of a crude oil pipeline project, *the primary factor* will be the potential increase in Canadian upstream oil production that would be expected to occur *if the [pipeline] were not built.*<sup>24</sup>

Therefore, if rail transport is an economically viable alternative, then the assessment was obliged to decide that the increased production that will be carried in the proposed pipeline *would be produced anyway, even if the pipeline were not built.* In that case, the new pipeline would not make emissions any worse—because the increased production would still occur even if the new pipeline were not approved. In that case, the pipeline will not “cause” any “incremental” emissions, according to the terminology.

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22. *Id.* at 789 (emphasis added).

23. *Id.* (emphasis added).

24. *Id.* (emphasis added).

Of course, in reality, emissions will increase if production grows. The assessment found that the amount of increased bitumen production carried by expanded pipeline capacity would account for an additional 13 Mt to 15 Mt of greenhouse gas emissions per year (about a 20% increase of the industry's total emissions, based on the 2015 level)—a significant increase in our total emissions.

Guided by the prescribed methodology, the Trans Mountain assessment was able to show that “incremental” emissions caused by the pipeline expansion will be “minimal.”<sup>25</sup> Evidence was available to establish that long-term oil prices will increase to about US\$78 per barrel by 2020 and will continue to rise gradually to US\$102 by 2040. The assessment concluded the project would cause only minimal “incremental” emissions, because the same amount of production increase (and the same emissions growth) would occur if the pipeline were not built—because rail transport would be viable as an alternate form of transport.

In truth, the accumulating concentration of CO<sub>2</sub> emissions in the atmosphere is the problem we are trying to solve. In light of that problem, the distinction between pipelines and rail transport is meaningless. If we increase production by 590,000 barrels per day (the increased capacity added by the Trans Mountain expansion), Canada's total emissions will increase by 13 Mt to 15 Mt—whether the increased output is shipped by pipeline or shipped by rail.

The upstream emissions assessment was a closed process. It was not a public inquiry. There were no hearings. There was no media access. 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 this hugely consequential decision, everything depended on the integrity of the second process, the upstream emission assessment. A proper inquiry must be *public*, because that is our guarantee that the evidence will not be pre-selected or cherry-picked. The integrity of the process must be protected by the basic principles of judicial independence, so we can be confident that decision makers are not being influenced by pressures, discussions, or other sources of information that have not been

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25. *Trans Mountain Pipeline ULC—Trans Mountain Expansion Project Review of Related Upstream Greenhouse Gas Emissions Estimates*, ENV'T & CLIMATE CHANGE CAN. 39 tbl. 7 (Nov. 15, 2016), <https://iaac-aeic.gc.ca/050/documents/p80061/116524E.pdf>

tested in the hearing room, in public view. The assessment failed to meet any of these basic standards, quietly deciding behind closed doors what evidence it would look at, and what lines of inquiry it would ignore.

*C. The Ministerial Panel on the Trans Mountain Pipeline  
(November 1, 2016)*

There was a third process. The Ministerial Panel was an unusual kind of public consultation, appointed by the Federal Minister of Natural Resources in May 2016. It did not have any powers to call evidence, or to make findings, or draw conclusions. The Ministerial Panel's only mandate was to listen to members of the public—including some of Canada's leading experts on emissions who volunteered to make submissions. People were permitted to attend a series of public meetings in Alberta and British Columbia to express their concerns about what issues and evidence had been overlooked, or inadequately dealt with, during the previous two processes.

Where it was faced with conflicting information or contradictory opinions, the panel was not permitted to adjudicate which view should be accepted. All it could do was report the conflicting information to the Minister in Ottawa. After two months of public meetings, the panel released its report on November 1, 2016.

One of the most significant divergences the Ministerial Panel identified in its report was a fundamental difference between two visions about the future trend of global oil demand. The panel summarized the views of presenters in Alberta (people who attended and made submissions to the panel were called "presenters"; this was not a judicial hearing). The panel recounts the submissions during the hearings in Alberta about the future of global oil demand:

There was no campaign of denial. At the same time, presenters pointed to domestic and international energy industry projections that show a rising need for hydrocarbon-based sources during a period of transition to renewable forms of energy. The question, they said, is not whether Canada, and the world, should be shifting to clean energy; rather, it's a matter of how quickly that conversion can occur. The presenters who appeared before us in Calgary suggested a transitional timeline in the order of 30 to 50 years. And if you accept that timeline as realistic, they said that Canada should be prepared in the meantime to compete . . . for international market share;

Canada should not restrain its energy production at the expense of the country's economic potential or living standard . . . .<sup>26</sup>

In direct contradiction to that view, the report quotes several leading climate researchers who, in their submissions to the panel, explained the consequences of allowing Canadian oil and gas production to grow as presently planned. They explained that our present energy resource expansion plans are incompatible with our overriding commitment to keep warming below 2°C. The panel quotes political scientist Kathryn Harrison, who has researched and published widely on energy policy and the efficacy of Canada's emissions reduction efforts: "To embrace the economic viability of this project is to self-consciously make an economic bet on a world of catastrophic climate change that the Government of Canada itself explicitly committed to avoid."<sup>27</sup> Harrison's point is that the future economic viability of the Trans Mountain project depends on the world experiencing continued growth of global oil demand over the next 25 years to 2040. Canada's oil sands industry is a high-cost producer, compared to other major suppliers of conventional crude oil around the world. The industry requires relatively high long-term oil prices to cover its comparatively high production costs. The NEB's forecast expansion of oil sands production from 2.3 million barrels per day ("bpd") in 2014 to 4.3 million bpd in 2040—which is the economic rationale for the Trans Mountain project—is based on the assumption that we will see *two or three more decades of increasing global oil consumption*.

But continued growth of global oil consumption for 25 more years is incompatible with keeping warming within the 2°C limit. In a 2015 report, Kathryn Harrison explained her analysis:

The International Energy Agency (IEA) has modeled national and global emissions consistent with limiting climate change to the internationally agreed target of 2C, which would entail peaking CO2 concentration in the atmosphere at 450ppm. Underscoring the potential impacts of international action on Canada's exports, this "450

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26. Ministerial Panel, *Report from the Ministerial Panel for the Trans Mountain Expansion Project*, NAT. RES. CAN. 10 (Nov. 1, 2016), [https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/files/pdf/16-011\\_TMX%20Full%20Report-en\\_nov2-11-30am.pdf](https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/files/pdf/16-011_TMX%20Full%20Report-en_nov2-11-30am.pdf) (emphasis added).

27. *Id.* at 32 (quoting Kathryn Harrison, Professor of Political Science at The Univ. of B.C.).



ppm scenario” finds that *global oil consumption would need to peak as early as 2020 and decline thereafter*, with projected demand in 2035 13% lower than in 2011.<sup>28</sup>

Harrison warned that a “transitional period” of rising oil demand for another 30 years is “*an economic bet on a world of catastrophic climate change.*”<sup>29</sup> U.B.C. climate scientist Simon Donner, in his submission to the Ministerial Panel, addressed the same concern. He focused on the assumption (accepted by the Trans Mountain report) that global oil production will continue to increase up to 2040. He specifically criticized the conclusion in the Trans Mountain report that even if Canada were to curb the expansion of its oil sands production, “*investments would be made in other jurisdictions and global oil consumption would be materially unchanged in the long term . . .*”<sup>30</sup> I quote here the Ministerial Panel’s summary of Simon Donner’s answer: “Donner described this as typical of the tragedy-of-the-commons analysis in which, if everyone in the world decides that the impact of *their* contribution is irrelevant in a global context, then everyone will continue to expand.”<sup>31</sup>

If all of the world’s major oil producing countries that have large enough oil reserves to substantially increase their production levels during the next 25 years decide to do so (there are about six big producers, including Canada, that have the capability to do that), the world will have no chance of keeping the increase in global temperature below the 2°C threshold.

Unfortunately, the Ministerial Panel had no power to make findings of fact or to draw any conclusions based on scientific evidence. It had no authority to adjudicate between the views of the Alberta presenters (that we can safely keep increasing global oil consumption for another 30 to 50 years) and the evidence of climate scientists (that further growth of global oil production must begin to decline after 2020).

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28. Kathryn Harrison, *Review of Destination Country Policies with Potential to Impact Demand for Canadian Oil Exports*, CITY OF VANCOUVER 8 (May 2015), <https://vancouver.ca/images/web/pipeline/Kathryn-Harrison-impact-of-destination-country-policies-on-oil-exports.pdf> (emphasis added).

29. Ministerial Panel, *Report from the Ministerial Panel for the Trans Mountain Expansion Project*, NAT. RES. CAN. 32 (Nov. 1, 2016), [https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/files/pdf/16-011\\_TMX%20Full%20Report-en\\_nov2-11-30am.pdf](https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/files/pdf/16-011_TMX%20Full%20Report-en_nov2-11-30am.pdf) (emphasis added) (quoting Kathryn Harrison, Professor of Political Science, Univ. of B.C.).

30. *Id.* at 32–33.

31. *Id.* at 33 (emphasis in original).

The panel was not allowed to make “recommendations.” But it found a way to make what were, in effect, a series of highly significant findings—findings that identify crucial questions that had not been answered. The panel stated: “Our role was not to propose solutions, but to identify important questions that, in the circumstances, remain unanswered.”<sup>32</sup>

The first “high-level question” that “remains unanswered,” according to the three panel members, is whether the growth of emissions that will result from building the Trans Mountain pipeline can be reconciled with Canada’s climate change commitment, which includes our 2030 emissions reduction target. The panel states the question this way: “Can construction of a new Trans Mountain Pipeline be reconciled with Canada’s climate change commitments?”<sup>33</sup> The panel unanimously concluded that this is one of the important questions that “remain unanswered.” The Ministerial Panel’s report was delivered to the government on November 1, 2016. Four weeks later, the cabinet announced its decision approving the two pipelines—without any public comment on the unanswered question.

The panel was correct. The question—about whether Canada’s projected expansion of oil sands production to 2040 can be reconciled with a 2°C world—had never been answered. The NEB inquiry refused to accept or consider any evidence about the impact of increasing oil sands emissions on the climate system. The upstream emissions assessment had accepted without question (and without cross-examination or scrutiny) that Canada’s oil sands production would continue to expand up to 2040 in accord with the NEB’s “business-as-usual” projection.

None of these three processes offered any findings that could have “satisfied” the cabinet that the Trans Mountain project was “consistent” with our climate commitments.

## VI. CONCLUSION

The Order in Council had all the outer markings of a lawful order. But the Order was not derived from any process of inquiry that would allow us to trust the decision. The Order in Council, therefore, cannot compel our respect. In answer to our application to call evidence about the emissions implications of the Trans Mountain expansion and climate change, the Crown Prosecutor told the court at our hearing that there is “no

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32. *Id.* at 46.

33. *Id.*

*need to delve into climate change.”* The core problem is that the Federal Government refused to delve into climate change—and then deceived Canadians by claiming that it had done so, even incorporating that misleading claim into the text of the Order itself. Canada’s political institutions have failed us at this horrific moment, tainting the lawful roots of this project, which rests on the Order in Council and the woefully inadequate review processes that preceded it. Our own government cast off the prudent and cautious law-sanctioned rules that would have allowed us to have confidence in their findings and decisions. We are forced, in forbidding circumstances, to make our own judgments about the risks ahead.