

IN THE MATTER OF THE *RESPONSIBLE ENERGY DEVELOPMENT ACT* Statutes of Alberta, 2012, C. R-17.3; AND THE *OIL SANDS CONSERVATION ACT*, R.S.A. 2000, C. 0-7 Section 10 and 11 and Sections 3, 24, and 26 of the *Oil Sands Conservation Rules*, Alberta Regulation 76/88;

AND IN THE MATTER OF THE *CANADIAN ENVIRONMENTAL ASSESSMENT ACT*, 2012, SC 2012, c 19, s 52;

**AND IN THE MATTER OF A JOINT PANEL REVIEW BY THE ALBERTA ENERGY REGULATOR AND THE GOVERNMENT OF CANADA, REGARDING:
FRONTIER OIL SANDS MINE PROJECT
TECK RESOURCES LIMITED;
CEAR Reference No.: 65505
AER Application No. 1709793**

**FINAL ARGUMENT OF THE OIL SANDS ENVIRONMENTAL COALITION
DECEMBER 11, 2018**

**Submitted To:
Joint Review Panel Secretariat**

Canadian Environmental Assessment Agency
160 Elgin Street, 22nd Floor
Ottawa, ON K1A 0H3

Tel.: 1-866-582-1884
Fax: 613-957-0941

**Submitted By:
Ecojustice Canada Society
800, 744 – 4th Avenue SW
Calgary, AB T2P 3T4**

**Attention Kurt W. Stilwell &
Barry K. Robinson**
Counsel to the Oil Sands Environmental
Coalition

Phone: <contact information removed>

E-mail <email address removed>
<email address removed>

TABLE OF CONTENTS

A. INTRODUCTION	1
i The Project is not in the public interest.....	1
ii The Panel must explain why it prefers certain experts’ evidence and provide reasons for that determination.....	5
B. ECONOMICS AND THE PUBLIC INTEREST.....	12
i Economic Viability of the Frontier Mine.....	13
ii Headwinds and the Price Differential for the Western Canada Select Heavy Oil Blend	14
iii A Single Discount Rate or Two Discount Rates for Costs and Benefits	16
C. GREENHOUSE GAS EMISSIONS	22
i Teck relies on a world oil demand forecast that is inconsistent with the 2°C target of the Paris Agreement.	22
ii Teck relies on Alberta’s 100 MT oil sands GHG emission limit which is not consistent with Canada’s mid-century GHG emission target or the Paris Agreement.....	24
iii The Project’s GHG emissions intensity will not be in the top quartile of comparable oil sands projects.....	29
iv The Project emissions are inconsistent with Teck’s own policy on GHG emissions.	31
v Recommendations.....	33
D. CLOSURE, RECLAMATION AND LIABILITY	34
i Teck has not provided any evidence to support their estimate of post-closure monitoring and mitigation costs.....	34
ii Teck must be required to post full security under the Mine Financial Security Program.....	36
iii Recommendations.....	39
E. BIODIVERSITY MANAGEMENT	39
i The Government of Alberta has failed to put in place the biodiversity management framework necessary to manage the cumulative effects of oil sands projects.....	39
ii Recommendations.....	43
F. WATER ACT DIVERSIONS.....	44
i Teck failed to apply for the approvals and licences required for the diversion of Unnamed Creek 2 and Big Creek.	44
ii Recommendations.....	48
G. COMMITMENTS AND CONDITIONS.....	48
i The Panel must convert commitments it relies on as evidence of mitigation into conditions of approval.....	48
ii Recommendation	52
H. CONCLUSIONS.....	52

A. INTRODUCTION

1. This is the final argument of the Oil Sands Environmental Coalition (“OSEC”) with respect to the proposed Frontier Oil Sands Mine Project (the “Project”) as proposed by Teck Resources Limited (“Teck”).

i The Project is not in the public interest.

2. OSEC submits that the Joint Review Panel (“Panel”) must determine that the Project is not in the public interest.
3. Pursuant to sections 10 and 11 of the *Oil Sands Conservation Act*, RSA 2000, c O-7 (“OSCA”), the Panel may grant an approval of an oil sands scheme or operation, or an oil sands processing plant, if in the opinion of the Panel “it is in the public interest to do so.”¹ The Panel may also, at its discretion, refuse to approve the scheme, operation or processing plant.²
4. In discussing the concept of the “public interest”, the Alberta Energy and Utilities Board (a predecessor to the Alberta Energy Regulator (“AER”)) stated:

Clearly, it is not just the interests of the applicant and the interveners that are at stake. The Board has a duty to safeguard the interests of all the citizens of Alberta.

Concepts as fluid as social, economic, and environmental impact are not easily resolved through the application of fixed principles. The Board must identify the elements of each applied-for energy development that would provide benefit not exclusively to the applicant and those directly connected to the development, but to Albertans in general. The Board must also weigh those benefits against the risk factors that are present, given the nature of the development, the location proposed, and other factors associated with the specific situation...

If the Board finds that risk, among other potential negative consequences, cannot be sufficiently mitigated, thereby finding that the risk exceeds the

¹ *Oil Sands Conservation Act*, RSA 2000, c O-7, s 10(3)(a), 11(3)(a) [OSCA].

² *Ibid*, s 10(3)(b), 11(3)(b).

potential benefit, the project could not be said to be in the public interest and would therefore not be approved by the Board.³

5. The Panel's decision with respect to the public interest must also be informed by the purposes of the relevant legislation.⁴
6. The purposes of the *OSCA* include:
 - a) to effect conservation and prevent waste of the oil sands resources of Alberta;
 - b) to ensure orderly, efficient and economical development in the public interest of the oil sands resources of Alberta; and
 - c) to ensure the observance, in the public interest, of safe and efficient practices in the exploration for and the recovery, storing, processing and transporting of oil sands, discard, crude bitumen, derivatives of crude bitumen and oil sands products.⁵
7. With respect to similar provisions in the *Oil and Gas Conservation Act*, RSA 2000, c O-6 ("*OGCA*"), the Alberta Court of Queen's Bench has stated: "The public's interest in the development of oil and gas is circumscribed by environmental protection duties and responsibilities."⁶
8. Pursuant to section 15 of the *Responsible Energy Development Act*, SA 2012, c R-17.3 ("*REDA*") and section 3 of the *Responsible Energy Development Act General Regulation*, AR 90/2013, the AER, in considering the application for the Project, must consider:
 - a) the social and economic effects of the energy resource activity;
 - b) the effects of the energy resource activity on the environment; and
 - c) the impacts on a landowner as a result of the use of the land on which the energy resource activity is or will be located.⁷
9. The purposes of the *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 52 ("*CEAA 2012*"), include:

³ Alberta Energy Utilities Board, *Decision 2005-060: Compton Petroleum Corporation, Applications for Licences to Drill Six Critical Sour natural Gas Wells, reduced Emergency Planning Zone, Special Well Spacing, and Production Facilities, Okotoks Field (Southeast Calgary Area)*, (22 June 2005), at 12-13.

⁴ *Johnson v Ontario (Ministry of the Environment)*, [2006] OERTD No. 5, at para 65.

⁵ *OSCA*, *supra* note 1, s 3.

⁶ *Alberta Energy Regulator v Lexin Resources Ltd*, 2017 ABQB 219, at para 26.

⁷ *Responsible Energy Development Act*, SA 2012, c R-17.3, s 15 [*REDA*]; *Responsible Energy Development Act General Regulation*, AR 90/2013, s 3.

- a) to protect the components of the environment that are within the legislative authority of Parliament from significant adverse environmental effects caused by a designated project;
 - b) to ensure that designated projects that require the exercise of a power or performance of a duty or function by a federal authority under any Act of Parliament other than *CEAA 2012* to be carried out, are considered in a careful and precautionary manner to avoid significant adverse environmental effects; and
 - c) to encourage the study of the cumulative effects of physical activities in a region and the consideration of those study results in environmental assessments.⁸
10. The *CEAA 2012* also requires that the Panel take into account the following factors:
- a) the environmental effects of malfunctions or accidents that may occur in connection with the Project;
 - b) the cumulative environmental effects that are likely to result from the Project in combination with other physical activities that have been or will be carried out; and
 - c) mitigation measures that are technically and economically feasible and that would mitigate any significant environmental effects of the Project.⁹
11. Further, the Canadian Environmental Assessment Agency, in the administration of the *CEAA 2012*, “must exercise their powers in a manner that protects the environment and human health and applies the precautionary principle.”¹⁰
12. Summarizing, the Panel must consider the following factors in determining if the Project is in the public interest:
- a) the orderly, efficient and economical development of the oil sands resource as circumscribed by environmental limits and responsibilities;
 - b) the environmental effects of malfunctions or accidents that may occur in connection with the Project;
 - c) the cumulative environmental effects that are likely to result from the Project in combination with other physical activities that have been or will be carried out;

⁸ *Canadian Environmental Assessment Act, 2012*, SC 2012, c 19, s 52, para 4(1) [*CEAA 2012*].

⁹ *Ibid*, s 19(1)(a), (d).

¹⁰ *Ibid*, s 4(2).

- d) mitigation measures that are technically and economically feasible and that would mitigate any significant environmental effects of the Project;
 - e) the relative balance of the social, economic and environmental impacts of the Project;
 - f) whether the potential negative consequences of the Project exceed the potential benefits, taking a careful and precautionary approach; and
 - g) the interests of all Albertans.
13. OSEC submits that the Panel must find that the Project is not in the public interest for the following reasons:
- a) the Panel cannot determine if the Project is in the public interest if costs are disregarded and only benefits are considered. That is particularly the case when the costs are borne by parties other than the project proponent that stands to profit by the extraction of the resource. Only a true public cost-benefit analysis can arrive at a proper determination. In this case, OSEC submits that the societal costs of the Project outweigh the benefits;
 - b) the Government of Canada has committed to the Paris Agreement goal of limiting the increase in global average temperature to well below 2°C. This is in the interests of all Canadians. In determining the economic benefits of the Project, Teck has relied on a world oil demand forecast that is inconsistent with that commitment, resulting in an overestimate of the benefits of the Project;
 - c) Teck has overestimated the economic benefits to Albertans by underestimating the cost of complying with greenhouse gas (“GHG”) reduction requirements, including Alberta’s 100 megatonne oil sands emissions limit, Alberta’s *Carbon Competitiveness Incentive Regulation* and Canada’s *Mid-century Long-term Low-Greenhouse Gas Development Strategy*;
 - d) Teck has overestimated the economic benefits to Albertans by underestimating the costs of post-closure monitoring and mitigation for the Project;
 - e) the Project will expose Albertans to environmental and economic risks by failing to identify current technically and economically feasible technologies for the treatment and reclamation of fluid tailings and end pit lakes;
 - f) the Project will leave elevated contamination on the Alberta landscape for decades, and in some cases, centuries, post-closure;

- g) Teck failed to commit to providing full-security for post-closure liabilities leaving Albertans at risk for these costs; and
 - h) the Government of Alberta has failed to manage the cumulative effects of this Project, along with other industrial activities, in the public interest by failing to produce a legally enforceable biodiversity management framework under the Lower Athabasca Regional Plan and failing to produce a range plan for the Red Earth caribou herd that would protect critical habitat.
14. On the balancing of the social, economic and environmental impacts of the Project, Teck has overestimated the economic benefits to the Regional Municipality of Wood Buffalo, the Government of Alberta, the Government of Canada and to all Albertans. At the same time, the Project will have significant adverse and long-lasting negative effects on the Alberta landscape, air, water and wildlife, and will contribute to global climate change, in a manner that cannot be justified in the circumstances.
15. In deciding if the Project is in the public interest, the Panel is required to exercise its powers in a manner that protects the environment and human health and applies the precautionary principle. Previous decision makers have failed in this task, resulting in cumulative adverse impacts that have had serious adverse impacts on the land, air, water and wildlife and the Indigenous and non-Indigenous communities that depend on those resources. There comes a time when decision makers must say “enough”. That time has come. OSEC submits that the Panel must determine that the Project is not in the public interest.
- ii The Panel must explain why it prefers certain experts’ evidence and provide reasons for that determination.**
16. Participants in regulatory proceedings have legitimate expectations of the decision-maker to provide reasons which are adequate. Where conflicting expert evidence is adduced, the reasons are to show why and how the decision maker preferred the evidence of one expert over another where opinions differ.
17. Macaulay & Sprague, in their text, *Hearings Before Administrative Tribunals*, state:

Reasons are not decisions. Decisions are “what” the agency has decided to do. Reasons are “why” the decision-maker decided to do it. They are simply the rationale underlying the decision; the explanation.¹¹

For every decision, whether it is final or interim, there are reasons. It is impossible not to have some reasons for a decision. The reason for a decision that is made on the flip of a coin is that heads or tails came up. They may be good reasons or they may be bad reasons. But there must be some reason why a decision was made in a particular way.

....

[I]n a broad sense reasons refer not only to the “why” a decision was reached but also the communication of that “why” to others. In this sense reasons (that is to say good reasons) are the means by which the decision-maker communicates in an understandable and adequate fashion why he or she made a particular decision.¹²

18. Participants in a regulatory process are unlikely to accept decisions based only upon the status or identity of the decision-maker. Respect for and acceptance of results against the interest of a party are gained by adequate and clear reasons. A clear route to conclusions and a clear outline of how conclusions are reached will earn trust.
19. These principles were aptly stated by the Newfoundland and Labrador Supreme Court (Trial Division):

The requirement of administrative bodies to provide written reasons appears to have been justified on the basis that the parties (and in particular an unsuccessful litigant) ought to know why the case was decided the way it was, and giving them written reasons will improve both the parties’ satisfaction with the result and public acceptance of the process; on the basis that reasons are likely to assist a Court in performing a review or appeal function, and to enable a lawyer to advise his or her client on the likelihood of success on review or appeal; and on the basis that the process of writing reasons is thought to assist the decision-maker in arriving at good decisions.¹³

¹¹ Robert W. Macaulay and James L.H. Sprague, *Hearings Before Administrative Tribunals*, Third Edition, (Toronto: Thompson Canada Limited, 2007) at 22-6.

¹² *Ibid*, citing Chief Justice Jactett of the Federal Court of Appeal.

¹³ *Newfoundland & Labrador v Vinland Resources Ltd.*, 2006 Carswell Nfld 225 (Newfoundland and Labrador Supreme Court (Trial Division), at para 73.

20. The AER benefits from a great degree of curial deference to its expertise when appeals are taken from its decisions.¹⁴ Because of its expertise and provided it remains within its jurisdiction, the Alberta Court of Appeal will consistently defer to its decisions.
21. High deference is accorded to AER decisions because it is built with particular expertise to achieve the aims of its constituting and governing statutes, it uses near judicial proceedings and its specialized knowledge.
22. However, curial deference paid by a court to a decision-maker will be diminished and perhaps lost if a reviewing court cannot determine how, or if, the expertise of the decision-maker in fact was applied. In his text book, “Standards of Review Employed by Appellate Courts” the Honourable Mr. Justice Roger Kerans, formerly of the Alberta Court of Appeal, on the subject of deference paid by reviewing courts to the expertise of administrative decision makers says:

“Experts, in our society, are called that precisely because they can arrive at well-informed and rational conclusions. If that is so, they should be able to explain, to a fair-minded but less well-informed observer, the reasons for their conclusion. If they cannot, they are not very expert. If something is worth knowing and relying upon, it is worth telling. Expertise commands deference only when the expert is coherent. Expertise loses a right to deference when it is not defensible. That said, it seems obvious that [appellate courts] manifestly must give great weight to cogent views thus articulated.¹⁵

23. Alberta jurisprudence contains a shining example of insufficient analysis of conflicting expert opinion evidence by a decision-maker and how the Alberta Court of Appeal was compelled to deal with the problem in a laborious fashion by in effect having to retry a case.¹⁶
24. The *Nova* case arose out of the explosion of a natural gas facility. The trial was extremely lengthy. It involved highly complex and technical testimony of prominent experts in such

¹⁴ *Citizens Impacted by the Caroline Shell Plant v. Alberta (Energy and Utilities Board)*, 1996 ABCA 277; *Epcor Generation Inc. v. Alberta (Energy and Utilities Board)*, 2003 ABCA 374; *Domke v. Alberta (Energy Resources Conservation Board)*, 2008 ABCA 232; *Talisman Energy Inc. v. Energy Resources Conservation Board*, 2010 ABCA 258.

¹⁵ Roger P. Kerans, *Standards of Review Employed by Appellate Courts*, (Jurliber 1994) at 17.

¹⁶ *Nova v. Guelph Engineering Company*, 1989 ABCA 253, [*Nova*].

fields as engineering, metallurgy, the properties of steel, valves and the causes of the failure of a pipeline and valve system.

25. The majority of the Court of Appeal (Kerans, J.A. and Laycraft, J.A.) ultimately decided to not send the matter back to the trial court for a retrial, but rather delved into the expert testimony and in effect re-tried the case with proper treatment of the expert evidence. The dissenting Justice (Cote, J.A.) differed only in his conclusion and would have ordered a new trial.
26. The Court of Appeal recounted how the trial Justice dealt with the complex expert evidence as follows:¹⁷

Upon consideration of all of the evidence before me and having regard to the experience and qualifications of all of the experts and their respective approach to and analysis of all matters relevant to this loss, it is my view that the most likely and most reasonable explanation as to the cause of the loss is that contained in the theory and opinions expressed on behalf of the defendants and such theory and opinions are therefore accepted by me.

He then attempts, in three pages of text, to summarize all the issues in the case. He concludes:

Having reached this conclusion, it is my view that the loss was not in any way caused by or related to the design, manufacture or supply of the valve assembly and accordingly the issue as to whether there was any breach of contract or negligence in the design, manufacture or supply of the valve is immaterial and I will not comment further thereon.

27. This insufficient and shallow level of analysis earned a strong rebuke from the Alberta Court of Appeal.¹⁸
28. That is all the Trial Justice said. It is plain that the trial Justice set out a conclusion and not reasons. Mr. Justice Cote also stated:

¹⁷ *Ibid*, at paras 26 – 27.

¹⁸ *Ibid*, at para 250.

Absence or brevity of reasons for judgement is not itself a ground of appeal. But in context, either may suggest logically that the trial court overlooked an important issue, important evidence, or the real significance of either: Maryland Casualty Co. v. Roland Roy Fournures [1974] S.C.R. 52, 55, 56; Harper v. R. [1982] 1 S.C.R. 2, 14, 18.¹⁹

The majority stated, among other things, the following:

The error of the learned trial judge was either to miss issues, as Cote, J. A. suggests, or to refuse to articulate his Reasons for decision. If the latter, the irony is that it has become necessary for me to do again what, presumably he had already done. I will not thank him for that.²⁰

And:

I agree with Cote, J. A. that, if the learned trial judge thought that the case required a simple choice between two schools, he missed an issue, indeed he missed many, and that was reviewable error. The defence posture was far more complicated than that, and involved many and alternative arguments.²¹

And:

A judge, or juror, must have reasons. It is manifestly an error in law to make a decision without reasoning, by which I mean a step-by step movement through issues with appropriate analysis and decisions. A decision-maker in our system cannot decide a case by the toss of a coin. Judges, and jurors, take an oath to try issues fairly and this means to think through the case.²²

[Emphasis that of the Court]

29. On the subject of the “Wholesale Adoption” of one of two expert opinions Mr. Justice Cote provides some important principles that are of significance in this hearing. Paraphrased somewhat, he dealt with suspect assumptions employed by the Trial Justice which called for correction as follows:²³

- a) the preference of the initial decision-maker of one expert’s evidence over another’s is a ground to reject the latter evidence only where they clash;
- b) the use of a wholesale adoption, or conversely a wholesale rejection of one expert’s evidence assumes that the experts totally clash in their opinions. This assumption is

¹⁹ *Ibid*, at para 317.

²⁰ *Ibid*, at para 3.

²¹ *Ibid*, at para 28.

²² *Ibid*, at para 37.

²³ *Ibid*, at paras 318(1) – 318(4).

important in this case where, for example, Teck's expert economic witness, Mr. Shewchuk, did not refute the types and characterizations of costs by Dr. Joseph. More will be said about this point below;

- c) the trial judge must have assumed that he must choose all of one side's explanation. The decision-maker should consider whether the truth might lie in between those competing views; and
 - d) wholesale adoption of one expert's opinion assumes that the preferred evidence is all consistent and thus might ignore important conflict in the evidence in certain cases.
30. In his expert report Mr. Shewchuk relies upon the JRP decision regarding the Kinder Morgan Trans Mountain Project and states:

The JRP reviewed both the proponent's IO economic analysis, as well a CBA submitted by an intervenor. In its decision report, the JRP notes:

The Board acknowledges the potential benefits to local, regional and national economies associated with the Project. The Board considered the evidence provided by Trans Mountain and by intervenors, and is of the view that construction and operation of the Project would likely result in positive economic effects, including revenues to various levels of government, and employment for local, regional and Aboriginal individual and businesses. Positive economic effects are likely to continue for at least the 20 initial years of operation.

The Board notes the economic analysis provided by Trans Mountain, and the [cost-benefit] report filed by C. Douglas and PIPE UP Network questioning the benefits of the Project. The Board finds the methodology used by Trans Mountain to estimate the Project's potential economic effects to be based on generally accepted methodologies. The Board is of the view that the use of input-output models to estimate general economic effects can provide a general understanding of the potential economic effects that can result from the construction and operation of large infrastructure projects.

The Board is of the view such projections represent broad estimates only, and that the actual economic effects of the Project would only be apparent once the Project is constructed and brought into operation. The Board is of the view that while providing general

projections, these methodologies are acceptable for estimating a project's potential economic effects.²⁴

31. A review of the decision on the Trans Mountain project reveals more.
32. These passages are preceded by a recitation of the evidence of the parties. Of course, Trans Mountain described all of the economic benefits that, in its opinion, would accrue including employment, economic benefits to provincial and national economies, regional employment, municipal economic benefits, training and capacity development, procurement and contracting. Capital expenditures were outlined, as were significant federal, provincial, corporate and municipal property taxes.
33. The Board went on to recite the position of interveners.
34. Metro Vancouver raised concerns of the use of input-output models and argued that those models did not indicate the magnitude of the benefits and costs, or whether the project was desirable from a public or social viewpoint. Metro Vancouver referred to the Treasury Board guidelines which recommended cost-benefit analysis is the appropriate method of evaluation, and that maximizing net benefits to Canadian society as a whole should be the metric used.
35. Other interveners submitted a study on the economic costs and benefits of the project for British Columbia and Metro Vancouver. They concluded that the benefits of the project were very small and significantly overstated by Trans Mountain.
36. The decision-maker then leapt directly to its conclusions without an analysis of the merit of the positions of the parties.
37. It is respectfully submitted that these passages are conclusions and not analysis and reasons. These passages disclose “what” the decision-maker did or concluded. There is not an indication of the “how” or the “why” sufficient for the reader to understand how these conclusions were arrived at.
38. Further it is respectfully advanced that another example of this type of insufficient explanation occurred in the report of the JRP's treatment of cost-benefit analysis of the

²⁴ Teck Reply Submission, CEAA Doc. No. 504, p 242.

application on the Enbridge Northern Gateway Project. On the subject of cost-benefit analysis, the Panel had only this to say:

The concept of ecological goods and services was described during the public hearing. The Panel is of the view that there is a temporary economic burden associated with ecological goods and services affected by pipeline construction. Based on the hearing record, the Panel finds that the estimated costs for damages to ecosystem goods and services are not well quantified and are based on a methodology that is not currently broadly accepted.²⁵

39. Analysis and reasons for these conclusions are not provided. The economic burdens of ecological goods and services do not lend themselves to precise quantification. Furthermore, that a methodology is not widely accepted is an insufficient basis to reject it. Unless there are sufficient reasons for this finding is provided, the reader is without an ability to understand the conclusions.
40. This discussion of the need for reasons and the need for the Panel to clearly articulate why it prefers one expert's evidence over another must inform the Panel's consideration of the substantive issues which follow.

B. ECONOMICS AND THE PUBLIC INTEREST

41. It is not possible to evaluate the public interest for a proposed project such as the Frontier Oil Sands Mine if costs are disregarded and only benefits are considered and a net benefit is arrived at. That is particularly the case when the costs are borne by parties other than the project proponent that stands to profit by the extraction of the resource.
42. The expert report of Dr. Chris Joseph "*Teck Frontier Mine: Review of Economic Benefits and Cost-Benefit Analysis*"²⁶ dated August 22, 2018 and updated October 20, 2018 sets out the costs that will be externalized and borne by the public.
43. In its evidence, Teck does not attempt to refute that the costs are real, with the result that the evidence adduced on these costs should be accepted by the Panel. This is true even for those costs for which a monetary figure cannot be arrived at.

²⁵ Joint Review Panel for the Enbridge Northern Gateway Project, *Considerations: Report of the Joint Review Panel for the Enbridge Northern Gateway Project, Volume 2*, (2013) at 19 [*Considerations*].

²⁶ Chris Joseph, *Teck Frontier Mine: Review of Economic Benefits and Cost-Benefit Analysis*, (revised), CEAA Doc. No. 633 [*Joseph Report*].

44. When these proven costs are weighed against the economic benefit to be derived from the Frontier Mine, the Project is not economically viable.

i Economic Viability of the Frontier Mine

45. Understandably in arriving at a conclusion on the economic viability of the Project, Teck relies upon advantageous forecasts that are available. It used an oil price of \$95 (US) based upon base case forecasting by the International Energy Agency (“IEA”).²⁷ The IEA’s New Policies price forecast was tested in the analysis of Dr. Joseph. It is not as favourable as the forecast relied upon by Teck. He concludes:

Similarly, in sensitivity analysis I found that the Project would be a relatively poor private investment in all scenarios other than possibly four of the 17 scenarios I tested: if 10% of labour would otherwise be unemployed, if the Project’s operational costs end up being 25% less than what Teck predicted in 2015, if Teck’s 2015 capital cost estimate ends up being correct, or if the International Energy Agency’s New Policies oil price scenario is realized. Only the high oil price scenario achieves an internal rate of return greater than 10%. Regardless, the evidence suggests that none of these scenarios are likely, and so overall my findings support the conclusions of both the National Energy Board and International Energy Agency that new bitumen mines are unlikely to be built due to their poor financial outlook.²⁸

[Emphasis added]

46. For two different regulatory regimes Teck made two contradictory statements. For the purposes of the evaluation of the project by the Panel it states:

As indicated by the updated socio-economic results provided in Tables 5.1a-1 to 5.1a-3, the Project will be economically robust, financially viable and a strong contributor to the Albertan and Canadian economies under all scenarios.²⁹

47. The definition of “robust” is, inter alia, “able to withstand or overcome adverse conditions”. In his testimony, Mr. Chiasson testified:

²⁷ Teck response to JRP IR 5.1(a)(iii), CEEA Doc. No. 294, p 5-4.

²⁸ *Joseph Report*, *supra* note 26, at 5.

²⁹ *Ibid*, at 27.

So I'm not exactly sure I agree with the way it was characterized by— that's Teck's view, apparently.³⁰

48. However, for the consumption of shareholders and investors and in conformity with National Instrument 51-101, in a passage which, after discussing un-risked contingent bitumen resources and the project design contemplating production of 260,000 barrels per day of bitumen, Teck states:

There is uncertainty that it will be commercially viable to produce any portion of the resources.³¹

49. National Instrument 51-101 includes amendments on “Standards of Disclosure for Oil and Gas Activities” effective July 1, 2015.
50. These two statements are stark in contrast. Perhaps one justification is that it is highly unlikely that any liability will attach for a statement in an application such as the one under consideration by the Panel here and relied upon by it and which proves to be overly promotional. In the investment setting very significant liabilities can attach to a statement about a proposed project's prospective economic viability when relied upon by investors and which prove to be unreliable.

ii Headwinds and the Price Differential for the Western Canada Select Heavy Oil Blend

51. Teck testified that it holds the view that takeaway capacity for Alberta's bitumen to tidewater and hence the Asian markets will narrow the differential in price between Western Canadian Select (“WCS”) and West Texas Intermediate (“WTI”). It is confident that currently proposed or previously approved pipelines will be built, namely the Enbridge Line 3, the Keystone XL Pipeline and the Trans Mountain Pipeline providing greater takeaway capacity and greater access to foreign markets reducing the dependency upon the dominant and almost sole market for bitumen in the United States.
52. Similar confidence would have been misplaced in relation to the Northern Gateway Pipeline and the Energy East Pipeline.

³⁰ Hearing Transcript, Vol. 1, CEAA Doc. No. 560, p 143, lines 8 – 10.

³¹ Teck Resources Ltd., *Management's Discussion and Analysis*, CEAA Doc. No. 557, Tab 3, p 23.

53. The Panel can take judicial notice of the very public, the highly publicized and notorious recent record escalation of the differential in price between WCS and WTI. The same is true for the very recent announcement of the Government of Alberta to impose a production restriction on Alberta oil sands producers to reduce total production by 8.7% or approximately 325,000 barrels per day. This was done in an attempt to reduce record differentials which had resulted in WCS prices being in the range of \$12-\$14 US.
54. The Government of Alberta has also decided to grant a subsidy to bitumen producers and purchase thousands of railcars on behalf of oil sands producers and some locomotives to increase export to the US market.
55. In its testimony Teck dismisses, almost out of hand, a conclusion of the Canadian Energy Research Institute (“CERI”) Study No. 175 of July, 2018 “*An Economic Assessment of the International Maritime Organization Sulphur Regulations on Markets for Canadian Crude Oil*”³² relating to the impacts of the imposition of a much reduced sulphur content. CERI concludes that “[t]he price discount on Western Canada Select (WCS) crude with respect to the West Texas Intermediate (WTI) price point will expand significantly due to the IMO regulation.”³³
56. Teck bases this dismissal by stating that marine shippers will simply install scrubbers to remove sulphur emissions. However, CERI states that once the new regulation takes effect, “almost 60% of the shipping industry currently using high sulphur [refinery produced residual bunker] fuel will need to switch to either marine gasoil or a blend of high sulphur and ultra-low sulphur middle distillate marine fuels.”³⁴ The CERI study estimates that scrubbers will be used for only about 3% of the High Sulphur Fuel Oil volume by 2020 and that adoption of scrubbers is likely to increase moderately and peak by 2025 where about 5% of the residual bunker fuel demand is consumed in tandem with scrubbers.³⁵ The well-respected CERI holds a widely disparate view to that of Teck.

³² Canadian Energy Research Institute, *An Economic Assessment of the International Maritime Organization Sulphur Regulations on Markets for Canadian Crude Oil*, (July 2018), CEEA Doc. No. I 558.

³³ *Ibid*, p 6.

³⁴ *Ibid*, p 5.

³⁵ *Ibid*, p 5.

57. To view the prediction of CERI on the widened and maintained differential in prices, on its chart³⁶ CERI predicts an approximate and consistent \$15 (2017 US\$) lower price per barrel for WCS in low noncompliance and moderate noncompliance scenarios when compared to the price of WCS without the IMO mandated reduction in sulphur content.
58. With a view to establishing the economic benefit of the project, Teck has included very significant amounts of royalties that the Government of Alberta can expect to receive in the future. Regan Boychuk gave opinion evidence on bitumen royalties. His evidence was not challenged nor tested on cross-examination. He opined:

Bitumen land sales and royalties currently collect much less than a nickel for every dollar generated from oil sands development. Alberta has never produced more oil or collected fewer royalties than it does today. This is simply not sustainable over the long term.

A proper public interest evaluation of Teck's proposed bitumen mine needs to appropriately account for royalty risk. The spectrum of potential royalty outcomes over the course of the Frontier mine's life need to be weighted by probability and incorporated on an expected value basis into the cost-benefit analysis of whether the project is in the public interest.³⁷

59. Tens of thousands of hectares of land are going to be disturbed, massive amounts of tailings are going to be produced and there will be negative impacts on the environment. If there exists the slightest risk that the public will bear the costs of remediation and reclamation, and that risk does exist, one might question whether the royalty return to the Government of Alberta is adequate.

iii A Single Discount Rate or Two Discount Rates for Costs and Benefits

60. In his cost-benefit analysis Dr. Joseph uses two discount rates. He used 3% for the costs of ecological services, which costs are borne by persons other than Teck and 8% for the economic benefits and expenditures on development relied upon by Teck in its application.
61. Some of the costs he discounts at the lower 3% rate are:
- a) incremental costs to government;
 - b) impacts on other commercial activities;

³⁶ *Ibid*, p 4.

³⁷ Hearing Transcript, Vol. 9, CEEA Doc. No. 594, p 1913, line 3 – 16.

- c) air pollution;
- d) greenhouse gas emissions;
- e) impacts on water resources; and
- f) impacts on ecosystem services.

62. In its evidence, Teck does not refute that these costs arise and even in the instances where the costs cannot be monetized, Teck did not contest that the social costs are incurred.

63. Dr. Joseph identifies the extent of the use of cost-benefit analysis where he states:

CBA is the standard method in modern economics for assessing a project's value to society. CBA entails identifying a project's benefits and costs, and then summing these impacts to arrive at an estimate of a project's net benefits. While the method of CBA is not required under current Alberta and federal EA guidelines, CBA is a standard method for project evaluation in many other countries including Australia and New Zealand, EU countries, the US, and by international development banks, and is a standard method of economic analysis of proposed regulatory change in Canada, the US, and many other countries.

CBA was recently applied in a study of Alberta's oil industry by the Canadian Energy Research Institute (CERI) (Millington et al. 2014), an independent, charitable organization founded in 1975 to study and report on energy issues facing Canada and an organization that has been conducting studies of oil/tar sands issues for many years. As CERI noted (Millington et al. 2014, 2), CBA is superior to the EconIAs that are typically done as part of EAs in Alberta because while EconIA may:

highlight some of the economic effects of [projects] but [are] not reflective of the net social benefit of [projects] because [EconIA does] not account for opportunity costs of the resources used in the project, costs incurred by government, impacts on other players (if any) operating in the area and social environmental impacts. Such costs are an economic externality of [projects] that should be considered. [In contrast, CBA] provides a robust method for evaluating the costs and benefits (including both economic and non-economic impacts) of a project or policy change in today's dollars to society as a whole. [CBA] is not currently used by the regulatory agencies when making a decision to approve or reject a project, but [CBA] might serve as an additional tool for them to rank and assess options and decide whether to implement them³⁸

³⁸ Joseph Report, *supra* note 26, at 12.

[Emphasis added]

64. Dr. Joseph's justification of the use of a lower discount rate for ecological and environmental goods and services bears the ring of reliability. He provides support for this justification. He states:

Yet from a sustainability perspective, much lower discount rates are often advocated and used (Boardman et al. 2011; Freeman and Groom 2016; Hanley and Spash 1993; Kula and Evans 2011; Sáez and Requena 2007; Shaffer 2010). For example, the UK Stern Review on climate change adopted a 1.4% discount rate, and other climate change economics studies have applied rates on the order of 3% (Goulder and Williams III 2012). CBA is premised on people's actual valuations (Shaffer 2010), and future environmental quality and human health are generally discounted little or even valued more by people (Gowdy 2004; Luttrell 2011; Sáez and Requena 2007). From this standpoint, a low rate should be used in the Frontier CBA given the Project's environmental impacts and associated impacts on health such that these impacts are diminished relatively little by the mathematical effects of discounting and reflect how people view such impacts.³⁹

[Emphasis added]

65. Of course many Canadians and people outside of Canada value health, clean air, pure water and a stable climate which supports continued life and current standards of living more than purely monetary benefits.
66. This approach must commend itself to the Panel and factor heavily in its analysis of the economic benefit of the project. A net benefit taking into account these harmful costs should be used in its determination of the public interest.
67. Ultimately, Dr. Joseph concludes:

My findings challenge Teck's message of billions in benefits to governments, businesses, workers, and households. My overall finding is that the Project is likely to be a net loss to society and a poor private investment. Even if the Project was developed, workers have at least equal opportunities elsewhere. These conclusions, on top of the Project's substantial environmental impacts, call into serious question whether this Project is in the public interest.⁴⁰

³⁹ *Ibid*, at 48.

⁴⁰ *Ibid*, at 58.

68. Mr. Shewchuk on behalf of Teck criticizes the approach of Dr. Joseph and in doing so relies upon the Canadian Cost-Benefit analysis guide of the Treasury Board of Canada Secretariat (the “Guide”).⁴¹

69. The Guide is just that, an aid to help persons to make a decision or calculation or to form an opinion. The intended audience was not independent or third party cost-benefit analysts nor the AER. The Guide was to assist federal government employees, departments, framers of regulation and regulators, and agencies in the framing of regulation. It is important to note the following statement in the Guide:

When negative externalities exist, part of the cost to society is not recognized by private decision-makers. In such situations it is important for the government to put in place regulatory policies or market-based instruments to restrict the behaviour that leads to such a negative externalities or social welfare losses so that Canadians as a whole will be better off.⁴²

70. Also, the Guide reads in part:

One approach is to estimate the social time preference rate, which is based on the rate at which individuals discount future consumption and projected growth rate in consumption. For Canada, the social time preference rate has been estimated to be around 3%. In these circumstances, the net present value of the results of the analysis can also be carried out using a social discount rate of 3% accompanied by the use of a shadow price of investment that is applied to all the costs of the intervention that results in a postponement or reduction of investment activity. However there is still controversy in the literature on the use of the social discount rates and further guidance will be needed in the future. Whatever rate is used, the costs and benefits should be discounted using the same rate.⁴³

71. The guide directs federal departments and agencies, when developing regulation, to use a uniform 8% discount rate for both costs and benefits. We ask rhetorically where are the reasons and rationale for this stipulated approach? There aren't any.

72. The Guide specifies the use of a single discount rate for both costs and benefits⁴⁴.

⁴¹ Teck Reply Submission, CEAA Doc. No. 504, at 238 - 239.

⁴² Treasury Board of Canada, *Canadian Cost-Benefit Analysis Guide: Regulatory Proposals*, CEAA Doc. No.634, at 2.

⁴³ *Ibid* at 42.

⁴⁴ *Ibid*.

73. Without knowing the reasons or rationale for the guidance, one is left to speculate. Two possible reasons for the stance of the Treasury Board on this point are a desire for uniformity across federal government, departments, framers of regulation, employees and agents and a desire for simplicity in the difficult subject of appropriate discounting of future streams of money or costs. In his expert report, Dr. Joseph acknowledges the difficulties economists face in determining appropriate discount rates and the valuation of environmental and health issues and states:

... and thus from sustainability and intergenerational ethics points of view is problematic. Despite substantial effort, economists and philosophers have not resolve these conflicts, and may never do so.⁴⁵

74. Therein lies a reason for the approach of the Treasury Board.

75. When asked if there was a rationale set out in the Guide supporting the insistence on using the same discount rate and not using differential rates,⁴⁶ Mr. Shewchuk provides a long answer. However, he starts by stating:

Mr. Chair, the document doesn't provide the explicit argument with respect to the application of a single discount rate.⁴⁷

76. A reader of the document will not find an argument, reasons or rationale.

77. That portion of his response is sufficient to acknowledge that the Treasury Board did not tell the reader why a single rate should apply.

78. Dr. Joseph provides cogent reasons why a lower rate should apply.

79. In response to the question in cross-examination about whether or not the Guide should displace the exercise of professional judgement, Mr. Shewchuk provides a long answer but ultimately responds:

Mr. Chair, I'm suggesting that simply arriving at a different conclusion isn't sufficient to deviate from the guidelines. Arriving at a theoretically sound and defensible argument for deviating from the guidelines could be grounds for deviating from them.⁴⁸

⁴⁵ *Joseph Report, supra*, note 26, at 47.

⁴⁶ Hearing Transcript, Vol 11, CEEA Doc. 560, p 151, lines 17-25.

⁴⁷ *Ibid*, p 152, lines 1 -3.

⁴⁸ Hearing Transcript, Vol. 1, CEEA Doc. 560, p 160, lines 2-7.

80. Dr. Joseph has done just that and has arrived at a theoretically sound and defensible argument for deviating from the Guide and has grounds to do so.
81. In his cross-examination of Dr. Joseph, Mr. Fontaine, with the use of aids⁴⁹ established that on occasion in the past, including his PhD thesis regarding the net economic benefit of the Imperial Kearn Oil Sands mine entitled “Megaproject Review in the Megaprogram Context: Examining Alberta Bitumen Development”⁵⁰, his work on the paper “Net Economic and Environmental Benefits of an Oil Sands Mine”⁵¹ with Dr. Gunton, and his “Public Interest Evaluation of the Trans Mountain Expansion Project”,⁵² Dr. Joseph did not use different discount rates. When pressed by Mr. Fontaine that the various guidelines put to Dr. Joseph suggested that he should use a uniform discount rate and that he had chosen to vary from that practice, Dr. Joseph offered valid reasons for the methodology he adopted on Teck’s application which varied from some of his previous work. His testimony remained unshaken on this point. He testified:

So it’s standard to use this mix. Dual discounting, the use of two different rates, is common around the world and it makes sense in this context to try and reconcile these two very different perspectives of environmental impacts and private market investment. So in my opinion it’s most appropriate to use that dual discounted procedure...⁵³

I’ve chosen to vary from it because, number one, practice is evolving; number two, the guidance that you are referring to is either referring to a regulatory impact analysis context or a public investment context.

And the analytical context here is major private investment with environmental impacts. So different concerns.⁵⁴

⁴⁹ CEEA Doc. No. 634 “Canadian Cost-Benefit Analysis Guide – Regulatory Proposals”; CEEA Doc. No. 635 “Megaproject Review in the Megaprogram Context: Examining Alberta Bitumen Development”; CEEA Doc. No. 636 “Net Economic and Environmental Benefits of an Oil Sands Mine; CEEA Doc. No. 637 “Treasury Bureau Policy on Cost-Benefit Analysis”; CEEA Doc. No. 638 “United States Environmental Protection Agency Guidelines for Preparing Economic Analysis”; CEEA Doc. No. 639 “Central Government Guidance and Appraisal on Evaluation”; and CEEA Doc. No. 640 “Public Interest Evaluation of the Trans Mountain Expansion Project”.

⁵⁰ CEEA Doc. No. 635.

⁵¹ CEEA Doc. No. 636.

⁵² CEEA Doc. No. 640.

⁵³ Hearing Transcript, Vol 15, CEEA Doc. 644, p 2995, line 6-12.

⁵⁴ *Ibid*, p 3027, lines 5-12.

82. Finally on this point, and remaining unshaken in his stance, Dr. Joseph stated:

I've become more aware of the evolving practice and I made a judgement that in this context the most appropriate approach is a dual discounting because of the analytical context here.⁵⁵

83. All experts should avoid being rigid their approach and remain receptive to new, developing and changing schools of thought in their respective areas of expertise which arise from newer credible work and studies. An expert that lacks flexibility in thought and remains hidebound by views which are modified, questioned and challenged in the passage of time warrants lowered acceptance.

84. In summary, Teck has relied on an unrealistic market forecast that has underestimated the ongoing discount for WCS and failed to conduct a societal cost-benefit analysis that would reveal the true societal costs of the Project, and therefore has overestimated the societal net benefits of the Project. OSEC submits that it is not in the public interest to accept the significant social and environmental impacts of the Project given the overstatement of the Project benefits.

C. GREENHOUSE GAS EMISSIONS

i Teck relies on a world oil demand forecast that is inconsistent with the 2°C target of the Paris Agreement.

85. In its demand forecast and economic analysis of the Project, Teck relies on a world oil demand forecast that is inconsistent with the Paris Agreement goal of limiting global warming to 2°C from pre-industrial levels.

86. Canada has committed to implementing the Paris Agreement and to implementing the *Pan-Canadian Framework on Clean Growth and Climate Change* as Canada's contribution towards achieving the Paris Agreement targets.⁵⁶ This includes a commitment to the Paris Agreement's goal of limiting the increase in global average temperature to well below 2°C

⁵⁵ *Ibid*, p 3028, lines 4-7.

⁵⁶ Environment and Climate Change Canada, *Canada's Seventh National Communication on Climate Change and Third Biennial Report*, OSEC Submission, CEAA Doc. No. 488, Vol 4, Tab 19, p 638.

and to pursuing efforts to limit the increase to 1.5°C.⁵⁷ This commitment is in the interest of all Canadians.

87. Teck bases the need for and economic benefits of the Project on the world demand for oil increasing from 95 million barrels per day today to 110 million barrels per day by 2040. Teck also relies on the world price of \$95 (US) per barrel that results from this forecast.⁵⁸
88. Yet, Teck's own *Climate Action and Portfolio Resilience* document indicates that world oil demand increasing to 104.9 million barrels per day by 2040 is consistent with a 2.7°C warming scenario, exceeding the Paris Agreement target of 2°C.⁵⁹ Teck's reliance on a world market forecast of 110 million barrels per day by 2040 exceeds even this 2.7°C scenario.
89. Teck's *Climate Action and Portfolio Resilience* document indicates that the world oil demand in 2040 consistent with the Paris Agreement target of 2°C would be 72.9 million barrels per day.⁶⁰ Yet, Teck does not consider this forecast in its economic forecasts and benefits analysis for the Project.
90. Teck has therefore put forth a scenario that requires a decision from the Panel. The Panel can accept a scenario in which the Paris Agreement target is met and reject Teck's market and economic forecast. This would also mean rejecting Teck's estimates of the economic benefits of the Project based on a price of \$95 (US) per barrel.
91. Alternatively, the Panel can accept Teck's economic forecast and predicted benefits, and reject Canada's commitment to the Paris Agreement's goal to limit the increase in global average temperature to well below 2°C as unreasonable. The Panel cannot find both that Teck's economic forecast is accurate and that the Paris Agreement targets are also a reasonable future scenario. That does not accord with the facts put forward by Teck itself. The two scenarios are mutually exclusive. The Panel must determine which scenario it will rely on.

⁵⁷ *Ibid*, p 690.

⁵⁸ Hearing Transcript, Vol 1, CEAA Doc. No. 560, p 47, line 22 – p 48, line 3; p 137, line 21 – p 138, line 10; p 201, lines 2-11.

⁵⁹ Teck Resources Limited, *Climate Action and Portfolio Resilience*, Teck Reply Submission, CEAA Doc. No. 504, Tab 36, p 16 [*Portfolio*].

⁶⁰ *Ibid*, at 17.

92. Whichever scenario the Panel accepts, it must be explicit and explain its reasoning. If the Panel accepts Teck's economic forecast based on a world oil demand of 110 million barrels per day by 2040 as reasonable, then the Panel must also reject Canada's commitment to the Paris Agreement as unreasonable. OSEC submits such a determination would not reflect the public interest in limiting global warming to less than 2°C. OSEC therefore submits the Panel must reject Teck's economic forecasts based on a world demand of 110 million barrels per day and an oil price of \$95 (US) per barrel.

ii Teck relies on Alberta's 100 MT oil sands GHG emission limit which is not consistent with Canada's mid-century GHG emission target or the Paris Agreement.

93. Teck relies on Alberta's 100 megatonne limit on oil sands GHG emissions. However, Alberta's 100 megatonne limit is not consistent with either Canada's mid-century GHG emissions target or the Paris Agreement target.

94. Canada's mid-century greenhouse gas reduction target is to reduce Canada's national GHG emissions by 80 percent by 2050 from 2005 levels.⁶¹ This is consistent with the Paris Agreement's 1.5°C to 2.0°C goal.⁶² This requires a reduction in Canada's GHG emissions from 748 megatonnes in 2005 to approximately 149 megatonnes in 2050.⁶³

95. Under the mid-century target of 149 megatonnes, GHG emissions from all energy-related sources in Canada including combustion sources, transportation, and fugitive emissions, including all oil sands emissions, would have to decline to 67 megatonnes per year by 2050.⁶⁴ This is an 89 percent reduction for the energy sector from 2005.⁶⁵ Clearly, this is not compatible with an emissions limit of 100 megatonnes per year for the oil sands sector. The oil sands sector will need to make significant decreases in GHG emissions below the 100 megatonne limit, either through reductions in emissions intensity or reductions in production.

⁶¹ Environment and Climate Change Canada, *Canada's Mid-century Long-term Low-Greenhouse Gas Development Strategy*, OSEC submission, CEAA Doc. No. 488, Vol. 4, Tab 18, p 548.

⁶² *Ibid.*

⁶³ *Ibid.*, at 628.

⁶⁴ *Ibid.*

⁶⁵ *Ibid.*

96. Teck suggests the 100 megatonne limit may not be reached at all depending on how the regulation under the *Oil Sands Emissions Limit Act* is structured and how emitters respond to it.⁶⁶ However, this assertion is contrary to Teck’s own evidence.
97. In direct examination, Mr. Chiasson of Teck stated that IHS Markit’s 2017 update indicated “the 100-megatonne cap emission limit for Canadian oil sands is not likely to be exceeded.”⁶⁷ In fact, the IHS report predicted the 100 megatonne limit could limit oil sands production growth by 2040 and with as little as 2.5 percent variance in production growth, the limit could be exceeded by 2030.⁶⁸
98. Further, the IHS forecast of GHG emissions was based on oil sands production increasing to 4.4 million barrels per day by 2040.⁶⁹ However, Teck’s market analysis for the Project is based on oil sands production reaching 4.7 million barrels per day by 2025.⁷⁰ Teck’s market analysis predicts an oil sands output by 2025 that would exceed the production level at which IHS Markit predicted the 100 megatonne limit would be met. Therefore, based on Teck’s own oil sands production forecast, the 100 megatonne limit will be reached prior to 2040 and perhaps as early as 2025, before the Project commences operation. Other sources predict the 100 megatonne limit will be reached between 2024 and 2030.⁷¹
99. Therefore, Teck’s assertion that the 100 megatonne limit may not be reached at all is not supported by any evidence, including Teck’s own evidence.
100. Alternatively, Teck states it expects to set Project emissions performance targets that align with the 100 megatonne limit.⁷² However, Teck acknowledges that “potential regulatory change may require further action to comply with increasingly stringent GHG standards.”⁷³ In addition, Teck stated it “supports equitable and effective policies to reduce emissions that

⁶⁶ Teck response to JRP IR 3.15(f), CEAA Doc. No. 285, p 3-107.

⁶⁷ Hearing Transcript, Vol 1, CEAA Doc. No. 560, p 102, lines 1-4.

⁶⁸ IHS Energy, *Crude Oil Markets – Canada Gets Tougher on Oil Sands GHG Emissions*, Teck Reply Submission, CEAA Doc. No. 504, Tab 20, p 6-7.

⁶⁹ *Ibid.*

⁷⁰ Project Update, CEAA Doc. No. 163, Vol 1, p 1-14.

⁷¹ OSEC submission, CEAA Doc. No. 488, Vol. 1, p 138-139.

⁷² Teck response to JRP IR 3.15c, CEAA Doc. No. 285, p 3-95.

⁷³ Project Update, CEAA Doc. No. 163, Vol. 1, p 14-12.

extend across jurisdictions and sectors.”⁷⁴ In other words, Teck acknowledges that a 100 megatonne limit cannot be sustained under Canada’s mid-century targets.

101. Teck acknowledged that to meet Canada’s mid-century GHG emissions target, oil sands operators, including Teck, would need to reduce GHG emissions by 50 to 80 percent by 2050.⁷⁵
102. Yet, under cross examination, Teck would not commit to any technological option, other than the already incorporated paraffinic froth technology, that would further reduce GHG emissions.⁷⁶ Therefore, while acknowledging that a 50 to 80 percent reduction in GHG emissions will be required by 2050, Teck has not built the cost of a single technology to reduce GHG emissions into their project engineering, project costs or project benefits estimates.
103. Instead, Teck asks the Panel to accept on blind faith that technological fixes will arise in the future. *CEAA 2012* requires that the Panel take into account mitigation measures that are technically and economically feasible.⁷⁷ Teck does not commit to any measure that is technically and economically feasible that would contribute to a further 50 to 80 percent reduction in GHG emissions from the Project. Therefore, the Panel must reject this scenario.
104. Further, Teck has underestimated the cost of compliance with the *Carbon Competitiveness Incentive Regulation* (“*CCIR*”). Teck calculated the cost of compliance with the *CCIR* at a maximum of \$750 million over the life of the Project.⁷⁸ However, Teck admitted it did not use an output based allocation declining at 0.2 percent per year as specified in the *CCIR*.⁷⁹ Rather, Teck speculated “it’s not likely for the output-based allocation to become more stringent every year for the next 50 years,”⁸⁰ Further, Teck argued that the Governments of

⁷⁴ Teck response to SIR No. 5, CEEA Doc. No. 186, p 151.

⁷⁵ Hearing Transcript, Vol 1, CEEA Doc. No. 560, p 201, lines 3-16.

⁷⁶ *Ibid*, p 180, line 24 - p 182, line 17.

⁷⁷ *CEAA 2012*, *supra* note 8, para 19(1)(d) .

⁷⁸ Hearing Transcript, Vol 1, CEEA Doc. No. 560, p 189, lines 3-20.

⁷⁹ *Ibid*, p 190, line 6 to p 191, line 16.

⁸⁰ *Ibid*, p 190, lines 14-19.

Canada and Alberta will protect the oil sands as a trade exposed industry if the output-based allocation is more stringent than other jurisdictions.⁸¹

105. These assertions are contrary to Teck's own statements and evidence. Teck stated "potential regulatory change may require further action to comply with increasingly stringent GHG standards."⁸² Further, Teck's own evidence states, in order to meet the Paris Agreement target of less than 2°C, carbon pricing will become mainstream globally, and average carbon prices will rise to a high of \$140 per tonne, greatly exceeding the \$50 per tonne price used in both the Teck and OSEC *CCIR* compliance calculations.⁸³
106. It is not reasonable in an increasingly carbon-constrained world, striving to meet the Paris Agreement targets, that restrictions on carbon emissions would become less stringent, rather than more stringent. Therefore, Teck's estimated cost of \$750 million to comply with the *CCIR* and other future regulations is not reasonable.
107. As calculated by OSEC, based on a carbon price of \$50/tonne and the current *CCIR* output based allocation reduction rate of 0.2 percent per annum, the actual cost of compliance with the *CCIR* is conservatively \$3.1 billion over the life of the Project, not \$750 million.⁸⁴
108. Teck asks the Panel to speculate that the output based allocation will not continue to decline at 0.2 percent per year as specified in the *CCIR*. OSEC's calculation, on the other hand, accepts the *CCIR* as it is today. Teck's speculation that the Governments of Alberta and Canada will protect the oil sands from increasingly stringent GHG regulation is without basis.
109. As this Panel stated in its rejection of certain applicants' application to compel witnesses to testify:

Further, evidence about what legislation and frameworks might be in place at some time in the future is of little if any value; it is speculative. The Panel's assessments, recommendations and decisions must be made based upon the regulatory scheme in effect at the time those recommendations, assessments

⁸¹ *Ibid*, p 191, line 24 to p 192, line 4.

⁸² Project Update, CEAA Doc. No. 163, Vol. 1, p 14-12.

⁸³ *Portfolio*, *supra* note 59, at 17.

⁸⁴ OSEC Submission, CEAA Doc. No. 488, Vol 1, p 142.

and decisions are made...Speculation about possible future government action is largely irrelevant and therefore unnecessary.⁸⁵

110. Therefore, the Panel must reject Teck's speculation that the output based allocations will not decrease at 0.2 percent per year. The Panel must accept OSEC's calculation based on the *CCIR* as it is today.
111. In summary, while acknowledging that oil sands projects will need to reduce GHG emissions by 50 to 80 percent by 2050, Teck has not committed to any technology to meet that goal. Further, Teck has not built any cost allowance for the technology required to reach that target into its costs forecast or its benefits analysis. Further, Teck has underestimated by four-fold the cost of compliance with the *CCIR* and subsequent regulations. Therefore, Teck's estimates of its operating costs and its estimates of the Project benefits are unrealistic.
112. Again, Teck has put forth a scenario that requires a decision by the Panel. The Panel can accept a scenario in which Canada's mid-century GHG targets are met, in line with the Paris Agreement, and reject Teck's assertion that it can reduce GHG emissions by 50 to 80 percent by 2050 and meet the *CCIR* output limits without impacting the Project's costs or benefits.
113. Alternatively, the Panel can accept Teck's costs and benefits analysis, recognizing that under that scenario, the emissions from the Project will be inconsistent with Alberta's 100 megatonne limit, Canada's mid-century targets and the Paris Agreement.
114. Whichever scenario the Panel accepts, it must be explicit and explain its reasoning. If the Panel accepts Teck's forecast that new technologies will allow it to reduce GHG emissions by 50 to 80 percent by 2050 with no adjustment to the Project's costs and benefits, the Panel must explicitly state the evidence supporting that determination. If the Panel accepts Teck's assertion that the regulation of GHG emissions from the oil sands will become less stringent, rather than more stringent, in the future, the Panel must explicitly state the evidence supporting that determination.
115. OSEC submits neither of those scenarios are reasonable based on the evidence before the Panel. Alberta's 100 megatonne limit will need to decrease rather than increase in order to be consistent with Canada's mid-century targets. The Project will need to either decrease

⁸⁵ Letter from Joint Review Panel to Athabasca Chipewyan First Nation re Subpoena Representatives of the Government of Alberta, CEEA Doc. No. 597, (12 October 2018), at 7-8.

production or make significant investments in new technology to decrease the GHG emissions by 50 to 80 percent by 2050. Costs of compliance with oil sands emissions regulations are more likely to increase rather than decrease over time. All of these facts mean Teck has significantly underestimated the impact of GHG compliance on its future profitability and has significantly overestimated the benefits likely to accrue to Alberta and Canada from the Project.

iii The Project's GHG emissions intensity will not be in the top quartile of comparable oil sands projects

116. Throughout their direct testimony and on cross-examination, Teck witnesses repeatedly stated the Project would be in the top, meaning the best, 25 percent of all oil sands production sources in terms of emissions intensity on a wells-to-wheels basis.⁸⁶ However, Teck did not present any evidence to support this assertion.
117. The assertion that the Project will be in the best 25 percent of all oil sands producers may have included in situ operations in the comparison. However, Teck itself states the best comparator for the Project is an oil sands mining operation that includes mining and extraction operations, paraffinic solvent use and co-generation.⁸⁷ The comparable projects would be the Muskeg River and Jackpine Mine complex ("MRM"), the Kearl Project and the Fort Hills Project.
118. Figure 1 below compares the GHG emissions intensity predicted for the Project against Teck's own evidence of GHG emissions intensity from the MRM, Kearl and Fort Hills projects from different data sources. All of the data shown in Figure 1 is derived from Teck's response to Joint Review Panel Information Request 3.15(e).

⁸⁶ Hearing Transcript, Vol 1, CEAA Doc. No. 560, p 208, lines 5-12; Hearing Transcript, Vol 3, CEAA Doc. No. 572, p 660, lines 6-13; Hearing Transcript, Vol 5, CEAA Doc. No. 575, p 1207, line 9-15.

⁸⁷ Teck response to JRP IR 3.15(e), CEAA Doc. No. 285, p 3-98 to 3-99.

119. As shown in Figure 1, the Frontier Project (red line) is at best in the middle of the ranges of GHG emissions intensity from the MRM and Kearl projects and is far above the *CCIR* output-based intensity for 2026 (green line).
120. This corresponds with Environment and Climate Change Canada's conclusions that:

ECCC analysis...indicates that the Project's estimated EI [emissions intensity] of 40.4 kg/barrel is approximately 25% higher than the best-in-class facility (32.5 kg/bbl)...

ECCC is of the view that the information that Teck has provided to date regarding greenhouse gas mitigation measures does not demonstrate that the Project will be "best-in-class" regarding greenhouse gas emissions. Nor has Teck demonstrated how "best-in-class" performance would be achieved and maintained through the implementation of particular programs or technologies targeting GHG emission reductions and energy performance. To assess Teck's "best-in-class" claim for the Project, a comparison of its proposed EI should be done with other facilities in the same class. ECCC considers an appropriate comparison to be standalone mines using paraffinic froth treatment technology. Teck Frontier's projected total (direct plus indirect) emissions intensity of 40.4

kilograms of CO₂e per barrel of production (kgCO₂e/bbl) would not be "best-in-class" based on a comparison to similar existing and planned projects. For example, ECCC calculates Shell's Jackpine/Muskeg River mine for 2014 to be 32.5 kg CO₂e/bbl.

ECCC analysis of EIs of similar mines in comparison to Teck proposed EI for the Frontier Project indicates that the Project would have an EI higher than all currently operating standalone mines (other than when they were in a commissioning stage).⁸⁹

121. ECCC predicts that the Project's direct and indirect GHG emissions intensity may be as high as 43 kg CO₂e/bbl.⁹⁰
122. Further, it is likely that the comparators under the *Oil Sands Emissions Limit Act* as the 100 megatonne limit is approached will be based on like projects, with oil sands mining operations being compared to other oil sands mining operations and not to in situ projects. Therefore, Teck's assertion the Project will be untouched by increased regulatory costs under 100 megatonne limit because it is in the best quartile in terms of GHG efficiency is not supported its own evidence.

iv The Project emissions are inconsistent with Teck's own policy on GHG emissions.

123. Teck's document *Our Strategy for Climate Action* ("*Climate Strategy*") lays out a strategy with four pillars to contribute to global climate action, adapt to a low-carbon economy, and to responsibly produce materials essential for society:
 - a) reduce Teck's carbon footprint;
 - b) position Teck for the low-carbon economy;
 - c) advocate for climate action; and
 - d) adapt to the physical impacts of climate change.⁹¹
124. However, Teck's position with respect to the Frontier Project and the emissions expected from the Project are contrary to Teck's own *Climate Strategy*.

⁸⁹ Government of Canada submission, CEAA Doc. No. 489, p 183-184.

⁹⁰ Hearing Transcript, Vol 17, CEAA Doc. No. 655, p 3600, lines 14-17.

⁹¹ Teck Resources Limited, *Our Strategy for Climate Change*, Teck Reply Submission, CEAA Doc. No. 504, Tab 35, p 3 [Strategy].

125. The Teck *Climate Strategy* states with respect to reducing Teck's carbon footprint:

We are working to shrink our carbon footprint by reducing greenhouse gas emissions associated with our mining and processing activities...Our target is to reduce our emissions by 450,000 tonnes by 2030 [from 2011 levels], which would be the equivalent of taking over 95,000 cars off the road.⁹²

126. However, the Project will more than double Teck's corporate GHG emissions of 3.0 megatonnes per year by adding an additional 3.9 megatonnes per year.⁹³ That is the equivalent of putting 830,000 additional cars on the road.

127. The Teck *Climate Strategy* states with respect to positioning Teck for the low-carbon economy:

As the world transitions to a low carbon economy there will naturally be shifts in demand for certain commodities—demand for those required for low-carbon technologies may increase while others may decrease...The minerals and metals we produce—including steelmaking coal, copper and zinc—are some of the basic building blocks of low-carbon technology and infrastructure.⁹⁴

128. Teck relies on increasing electrification and the use of renewable technologies such as wind and solar to create an increasing demand for its steelmaking coal, copper and zinc. Yet, at the same time, Teck relies on a market forecast in which oil demand increases. There is an inconsistency between Teck's reliance a carbon-constrained world creating demand for its metal-related products and its oil demand forecast.

129. The Teck *Climate Strategy* states with respect to advocating for climate action:

Teck is a signatory of the 2015 Paris Pledge, in support of the Paris Agreement on Climate Change. The Paris Agreement provides a global framework for action on climate change, and targets to hold the increase in the global average temperature to well below 2°C above pre-industrial levels.⁹⁵

130. Despite this pledge, Teck relies on an oil market forecast in the Project application that far exceeds the production levels consistent with the Paris Agreement.

⁹² *Ibid*, at 4.

⁹³ Teck Resources Limited, *Teck 2017 Sustainability Report*, Teck Reply Submission, CEEA Doc. No. 504, Tab 34, p 46; Project Update, CEEA Doc. No. 163, Vol 3, p 4-285; Hearing Transcript, Vol 1, CEEA Doc. No. 560, p 211, lines 13-24.

⁹⁴ *Strategy*, *supra* note 88, at 6.

⁹⁵ *Ibid*, at 8.

131. Further, Teck states in their *Climate Strategy*:

We believe that as the world increasingly moves towards broader carbon pricing, in addition to helping reduce emissions, it will contribute to a more “level” playing field for companies like Teck who already pay carbon tax.⁹⁶

132. Yet, in their response with respect to carbon pricing under the *CCIR*, Teck argues the opposite, that the world will not move towards carbon pricing and that the Government of Alberta will reduce its carbon pricing in order to protect trade exposed industries.

133. It is hard to determine what Teck believes – the progressive move towards a carbon-reduced future reflected in its *Climate Strategy* or business as usual as reflected in its Project Application. The two are not compatible.

v Recommendations

134. OSEC submits the oil production forecast relied on by Teck to determine the economic viability and benefits of the Project are not consistent with the 2°C target of the Paris Agreement. Further, Teck has not put forth a technically and economically feasible plan for reducing the GHG emissions of the Project in a manner consistent with Canada’s mid-century GHG target. Therefore, OSEC submits the economic benefits of the Project, and the resulting benefits to Canada and Alberta in taxes and other revenues, have been overstated and therefore the Project is not in the public interest.

135. In the event the Panel concludes the proposed Project is in the public interest, a decision with which OSEC would strongly disagree, OSEC would seek the imposition of the following conditions:

- a) prior to commencement of construction of the Project, Teck shall submit a GHG management plan for the Project to the AER for approval which confirms the steps Teck will take to ensure the Project is in the best performing quartile of oil sands mining producers with respect to GHG emissions intensity. Best-in-class performance would require direct and indirect GHG emissions of less than 28.9 kg CO₂e/bbl in 2026.
- b) prior to commencement of construction of the Project, Teck shall submit a GHG management plan for the Project to the AER for approval which demonstrates how

⁹⁶ *Ibid*, at 9.

- GHG emissions will be reduced by a further 50 percent between 2026 and 2050 consistent with Canada's mid-century GHG targets;
- c) Teck shall not commence construction until the *Oil Sands Emissions Limit Act* regulations have been enacted; and
 - d) Teck shall not commence construction of the Project if the Government of Alberta's ten year forecast indicates cumulative oil sands GHG emissions will exceed 100 Mt CO₂e/annum at any time in the first five years of that forecast.

D. CLOSURE, RECLAMATION AND LIABILITY

i Teck has not provided any evidence to support their estimate of post-closure monitoring and mitigation costs.

136. Teck has provided a global cost for post closure monitoring and mitigation but has not provided any supporting evidence that would allow the Panel to determine if those costs are reasonable.
137. Teck's evidence indicates the Project will result in certain substances exceeding reference conditions far into the future. In particular:
- a) in Ronald Lake, median concentrations of aluminum and iron, and peak concentrations of iron, exceed water quality guidelines and reference conditions in 2181;⁹⁷
 - b) in Redclay Creek, median concentrations of aluminum, iron, lithium, total nitrogen and total phosphorus, and peak concentrations of lithium and naphthenic acids, exceed water quality guidelines and reference conditions in 2181;⁹⁸
 - c) in Big Creek, median concentrations of aluminum, iron, lithium and total phosphorus, and peak concentrations of aluminum, ammonia, cadmium, lithium and sulphide, exceed water quality guidelines and reference conditions in 2181;⁹⁹ and
 - d) in the Athabasca River, naphthenic acids exceed reference conditions by more than 10 percent in both 2081 and 2181.

⁹⁷ Project Update, CEEA Doc. No. 163, Vol 3, s 7, p 7-38, 7-48.

⁹⁸ *Ibid*, at 7-40 to 7-41, 7-52.

⁹⁹ *Ibid*, at 7-42 to 7-42, 7-54.

138. Chloride levels in groundwater flows into the South Reclamation Lake exceed drinking water guidelines for 580 years.¹⁰⁰ Sulphide levels in groundwater flows into the South Reclamation Lake exceed drinking water guidelines for 600 years.¹⁰¹ Sulphide levels in groundwater flows into the East Reclamation Lake exceed drinking water guidelines for 550 years.¹⁰²
139. Chloride concentrations in groundwater flows into Big Creek peak at 500 years post end-of-mine-life. Chloride concentrations in groundwater flows into the Fish Habitat Compensation Lake peak at 850 years post end-of-mine-life. Chloride concentrations in groundwater flows into the Athabasca River peak at 1200 years post end-of-mine-life.¹⁰³
140. Teck estimates the external tailings area hydraulic barrier might need to remain effective for 230 years.¹⁰⁴
141. Teck's own evidence shows reclaimed tailings areas will continue to settle for 100 years or more post end-of-mine-life.¹⁰⁵
142. Teck's plan to manage these post-closure effects going out hundreds of years is to implement a groundwater monitoring plan,¹⁰⁶ a *Draft Hydrology and Water Quality Mitigation, Monitoring and Adaptive Management Plan*,¹⁰⁷ and a *Draft Reclamation Monitoring Plan*.¹⁰⁸ However, none of these plans contains any details with respect to the cost of long-term monitoring or the cost of additional mitigation if required.
143. Teck indicates only that it has allowed \$500 million for seepage management, monitoring, and additional mitigation post 2081, of which \$350 million is allocated for the external

¹⁰⁰ Teck Response to JRP IR 8.34, CEAA Doc. No. 293, p 8-292.

¹⁰¹ *Ibid.*

¹⁰² *Ibid.*

¹⁰³ Project Update, CEAA Doc. No. 163, Vol 1, s 13, p 13-124.

¹⁰⁴ Teck Response to JRP IR 8.34, CEAA Doc. No. 186, p 8-292.

¹⁰⁵ Teck Response to JRP IR 10.1, CEAA Doc. No. 361, p 10-5 to 10-6.

¹⁰⁶ Teck Response to AER IR, Round 5, Q5, CEAA Doc. No. 186, p 16.

¹⁰⁷ Teck Response to JRP IR 8.33, App 8.33, CEAA Doc. No. 293.

¹⁰⁸ Teck Response to JRP IR 6.9, App. 6.9, CEAA Doc. No. 286.

tailings area hydraulic barrier.¹⁰⁹ That leaves only \$150 million for what could be decades of monitoring groundwater, surface water and reclamation.

144. If, as Teck suggests, pit lakes will be monitored for 40 years after filling,¹¹⁰ other surface waters will be monitored for some unspecified period, groundwater will be monitored for 20 to 40 years,¹¹¹ reclamation will be monitored for settlement for 65 years after 2081,¹¹² and precipitation and flood events will be monitored for 65 years,¹¹³ that would mean Teck was committing as little as \$2 million to \$3 million a year for all post-2081 monitoring not including any mitigation measures required as a result of the monitoring. Teck does not provide any evidence to support the reasonableness of the cost estimate.
145. Teck's evidence predicts impacts that will last for generations, but Teck asks the Panel to accept, without evidence, that \$500 million is sufficient for all of the monitoring and mitigation that will be required during that period. The Panel should not accept that assertion.

ii Teck must be required to post full security under the Mine Financial Security Program.

146. Teck has indicated it is committed to complying with the Mine Financial Security Program ("MFSP") based on the asset value of the oil sands deposit.¹¹⁴
147. The Auditor General of Alberta has stated the following with respect to the MFSP:

Thus the focus of our current audit was whether the MFSP constitutes an approach that provides sufficient financial security. For the design and operation of the MFSP to fully reflect the intended objectives of the program, we have concluded that improvements are needed to both how security is calculated and how security amounts are monitored. Without these improvements, if a mine operator cannot fulfill its reclamation obligations and no other private operator assumes the liability, the province is at risk of having to pay substantial amounts of public money...

¹⁰⁹ Hearing Transcript, Vol 2, CEAA Doc. No. 569, p 235, lines 13-25; p 236, line 22 – p 237, line 3; p 251, line 25 – p 252, line 7.

¹¹⁰ *Ibid*, p 244, lines 3-21.

¹¹¹ *Ibid*, p 278, line 20 - p 279, line 3.

¹¹² *Ibid*, p 289, lines 12-14.

¹¹³ *Ibid*, p 290, lines 6-20.

¹¹⁴ Teck Response to JRP IR 5.4b, CEAA Doc. No. 294, p 5-52 to 5-53; Hearing Transcript, Vol. 2, CEAA Doc. No. 569, p 299, line 24 – p 300, line 16.

There is a significant risk that asset values calculated by the department are overstated within the MFSP asset calculation, which could result in security amounts inconsistent with the MFSP objectives. The MFSP asset calculations do not incorporate a discount factor to reflect risk, use a forward price factor that underestimates the impact of future price declines, and treat proven and probable reserves as equally valuable.¹¹⁵

148. The MFSP provides that an approval holder may elect to provide full security based on their annual reporting of the unescalated and undiscounted estimated cost required to carry out the suspension, abandonment, remediation and reclamation obligations for the site.¹¹⁶ The full security option avoids the issue that arises from the overestimation of the project assets as identified by the Auditor General. However, Teck would not commit to the full security option.¹¹⁷
149. Instead, Teck gave several assurances that Teck Resources Limited, the corporate parent of the Teck group of companies, would be responsible for any additional security costs and any outstanding reclamation and closure liabilities if the cash flows from the Project were insufficient to meet these obligations.¹¹⁸
150. However, when asked if Teck would turn those assurances into a condition of approval, Teck would not agree.¹¹⁹
151. Although it was not indicated in any application documents, Teck confirmed the Project, if approved, would be owned and operated by Teck Frontier Energy Partnership.¹²⁰
152. Teck Frontier Energy Partnership is an ordinary partnership in which Teck Resources Limited holds a 99.99 percent interest and Frontier Energy Project Corporation, a federally incorporated corporation, holds a .01 percent interest.¹²¹

¹¹⁵ Auditor General of Alberta, *Report of the Auditor General of Alberta*, (Edmonton: July 2015), OSEC Submission, CEAA Doc. No. 488, Vol 5, Tab 27, p 1263, 1283.

¹¹⁶ Alberta Energy Regulator, *Mine Financial Security Program Standard*, (Calgary: March 2014), at 1, 7.

¹¹⁷ Hearing Transcript, Vol 2, CEAA Doc. No. 569, p 300, lines 3-16.

¹¹⁸ Hearing Transcript, Vol 2, CEAA Doc. No. 569, p 306, line 23 – p 309, line 13; p 310, lines 11-17; p 311, lines 7-10.

¹¹⁹ Hearing Transcript, Vol 2, CEAA Doc. No. 569, p 310, line 23 – p 311, line 14.

¹²⁰ Hearing Transcript, Vol 3, CEAA Doc. No. 572, p 579, lines 3-14; p 580, line 21 – p 581, line 6.

¹²¹ Diagram of Teck Resources Limited corporate structure, CEAA Doc. No. 570; Hearing Transcript, Vol 3, CEAA Doc. No. 572, p 577, line 23 – p 579, line 1.

153. Teck is correct in its assertion that, as a partner in Teck Frontier Energy Partnership, Teck Resources Limited would be liable for all partnership liabilities.¹²²
154. However, that assertion would hold true for the life of the Project only if:
- a) the permits and approvals for the Project are held by Teck Frontier Energy Partnership and not Frontier Energy Project Corporation. Teck Resources Limited has no responsibility for the liabilities of Frontier Energy Project Corporation; and
 - b) Teck Resources Limited does not sell or otherwise dispose of its interest in Teck Frontier Energy Partnership at any time in the life of the Project.
155. The Panel cannot control future transactions that might result in Teck Resources Limited no longer being responsible for the liabilities of the Project. Further, as stated by the British Columbia Supreme Court in *Gitxsan v British Columbia (Minister of Forests)*, 2002 BCSC 1701, a change in control is not neutral from a practical point of view, and a change in the controlling mind of a corporate entity may result in a change of the philosophy of the persons making the decisions on behalf of the corporation.¹²³
156. However, by setting a condition requiring Teck Frontier Energy Partnership, as owner and operator of the Project, to post security under the full security option of the MFSP, the Panel can protect the Alberta taxpayer from assuming the costs of reclamation and closure for the Project. This overcomes both the weakness of the MFSP asset to liability calculation and the possibility that Teck Resources Limited disposes of its 99.99 percent interest in the Project.
157. Teck provides assurances that it has good intentions and intends to be fully responsible for the costs of closure, reclamation, post-closure monitoring and mitigation of the Project. However, the Alberta oil and gas landscape is littered with liabilities from companies with good intentions – Redwater Energy Corporation, Lexin Resources Ltd., Sequoia Resources Corporation, Southern Pacific Resources Corporation – to name a few. “Trust us” is not good enough. The Panel must set a condition that protects the Alberta taxpayer from the end-of-life liabilities of this Project.

¹²² Hearing Transcript, Vol 2, CEEA Doc. No. 569, p 327, line 21 – p 328, line 8; *Partnership Act*, RSA 2000, c P-3, s 11(2).

¹²³ *Gitxsan v British Columbia (Ministry of Forests)*, 2002 BCSC 1701, at para 82.

iii Recommendations

158. OSEC submits that the closure, reclamation, post-closure monitoring and mitigation costs presented by Teck lack details and are not supported by any evidence. Further, Teck has committed only to the standard asset-based MFSP which does not protect the Alberta public purse from post-closure liabilities. Given these uncertainties, the Panel cannot determine that the Project is in the public interest.
159. In the event the Panel concludes the proposed Project is in the public interest, a decision with which OSEC would strongly disagree, OSEC would seek the imposition of the following conditions:
- a) Teck shall, prior to commencing mining operations, submit to the AER for approval a comprehensive economic assessment of feasible active water treatment options that Teck could implement to ensure water release from pit lakes will meet Alberta guidelines for the protection of aquatic life;
 - b) Teck shall, prior to commencing mining operations, submit to the AER for approval a comprehensive economic assessment of terrestrial closure options for landscapes containing fluid tailings which demonstrates how Teck will manage the risks and uncertainties posed by the closure of fluid tailings sites;
 - c) Teck shall continue to meet its commitments with respect to fluid tailings and reclamation regardless of any future regulatory changes that would reduce the regulatory obligations with respect to fluid tailings treatment or reclamation;
 - d) Teck shall post security for closure, remediation and reclamation of the Project in accordance with the full security option of the MFSP; and
 - e) Teck shall have its estimates of closure, remediation and reclamation costs in each annual report under the MFSP verified by an independent third-party.

E. BIODIVERSITY MANAGEMENT

i The Government of Alberta has failed to put in place the biodiversity management framework necessary to manage the cumulative effects of oil sands projects.

160. In OSEC's original statement of concern, submitted on June 4, 2012, OSEC stated the Project should not proceed until thresholds had been established to manage cumulative

effects under the Lower Athabasca Regional Plan (“LARP”).¹²⁴ While LARP was released in August 2012, biodiversity management frameworks have still not been completed. The absence of a biodiversity management framework precludes responsible decision-making under a cumulative effects management approach.

161. The Regional Sustainable Development Strategy (“RSDS”) was released in 1999. It promised biodiversity objectives for management of the oil sands would be completed in two years.¹²⁵ OSEC member organizations participated in good faith for many years to help the government advance this work as a member of Cumulative Environmental Management Association (“CEMA”) and through participation in land use planning processes.
162. Nineteen years later, Alberta and Canada are no closer to managing the cumulative impacts of projects in the oil sands for biodiversity or setting objectives for acceptable impacts on biodiversity values.
163. The Project has similar biodiversity impacts and commits to similar inadequate mitigation measures as the Shell Jackpine Expansion project. Teck suggests it may consider conservation offsets to mitigate impacts but makes no commitment to do so.¹²⁶ The joint review panel, in its decision report for the Shell Jackpine Expansion project, concluded that:

The Panel also believes that the Lower Athabasca Regional Plan (LARP), although still a work in progress, is an appropriate mechanism for identifying and managing regional cumulative effects, including the proposed biodiversity management framework and new Alberta wetlands policy (both in development). The LARP is an excellent and important framework for beginning to introduce a more integrated regional approach, and the Panel strongly encourages Alberta to continue to implement this regional plan. It is critical that the frameworks, plans, and thresholds identified in the LARP be put in place as quickly as possible. Future project reviews will benefit greatly from the completion of this regional approach...

...Although the Panel recognizes that LARP and other regulations and policies of the government of Alberta do not currently mandate the use of conservation offsets in the oil sands region, given that there are few options available for

¹²⁴ Oil Sands Environmental Coalition, Statement of Concern re Teck Resources Limited Frontier Oil Sands Mine Project (4 June 2012), CEAA Doc. No. 33, at 5.

¹²⁵ Alberta Environment, *Regional Sustainable Development Strategy for the Athabasca Oil Sands Area*, OSEC Submission, Vol 7, Tab 31, CEAA Doc. No. 488, at 1524.

¹²⁶ Project Update, Vol 3, s 11, CEAA Doc. No. 163, p 11-52 to 11-53.

avoiding or minimizing the adverse effects of large surface mines, the Panel believes that the use of conservation offsets may be necessary...

... As has been the case with other recent decisions on mineable oil sands development, many of the concerns and issues related to this proposal have to do with the pace of development of the mineable oil sands and the capacity of the regional environment to absorb these developments without creating effects that result in further development not being in the public interest. The Panel believes that a more integrated and comprehensive approach is required to adequately address cumulative effects of mineable oil sands development. While the LARP is an essential first step, its value will be fully realized only when all of its frameworks and thresholds are in place and being applied.¹²⁷

164. All these findings continue to apply six years later, and are more urgent with respect to the proposed Teck Frontier project. The biodiversity management framework must be in place and Teck must commit to conservation offsets before the Project proceeds.

165. The LARP also stated:

A new biodiversity management framework for the Lower Athabasca Region on public land in the Green Area and provincial parks will bring context to these efforts [to protect and manage biodiversity] at the regional level. The framework will be developed by the end of 2013 and will:

Set targets for selected biodiversity indicators (vegetation, aquatic and wildlife); and

Address caribou habitat needs in alignment with provincial caribou policy.¹²⁸

166. In the Shell Jackpine Mine Expansion Report, the joint review panel recommended “that the Government of Alberta work toward the timely completion of the LARP biodiversity management framework and that it include thresholds for old-growth forest loss to guide the development of future oil sands projects.”¹²⁹

167. Alberta has not completed Biodiversity Management Frameworks, contrary to the requirement in LARP and the recommendation of the joint review panel for the Shell Jackpine Mine Expansion. As such it is not possible for this Panel to responsibly determine

¹²⁷ Joint Review Panel for the Jackpine Mine Expansion Project, *Report of the Joint Review Panel, Shell Canada Energy Jackpine Mine Expansion Project*, 2013 ABAER 011, OSEC Submission, Vol 7, Tab 32, CEEA Doc. No. 488, at paras 14, 31-32, p 1582, 1586 [Jackpine].

¹²⁸ Government of Alberta, *Lower Athabasca Regional Plan, 2012-2022* (Edmonton: 2012), OSEC Submission, Vol 8, Tab 33.1, CEEA Doc. No. 488, at 2016.

¹²⁹ *Jackpine*, *supra* note 127, at 376.

if the Project has acceptable cumulative impacts on biodiversity. This continued failure represents 19 years of delay and obfuscation on this issue.

168. ECCC has concluded that the Project directly impacts the Red Earth caribou herd and possibly impacts the Richardson herd.¹³⁰ Woodland caribou from the Red Earth range have been documented using the proposed Project site.¹³¹
169. Alberta was required to have completed range plans for Woodland Caribou by October 2017, five years after the release of the Recovery Strategy for Woodland Caribou.¹³² A range plan for the Red Earth herd that meets the minimum 65 per cent undisturbed habitat threshold as required by the federal *Species at Risk Act* has not been completed.
170. The joint review panel for the Shell Jackpine Mine Expansion recommended that “the Government of Alberta, in consultation with the Government of Canada and interested Aboriginal groups in the oil sands area, produce a range plan for caribou in the designated critical habitat of the Richardson Range as soon as possible.”¹³³
171. Further, the joint review panel for the Shell Jackpine Mine Expansion recommended “that the Government of Alberta work in cooperation with [Environment Canada] towards the expeditious completion of range plans for caribou in the oil sands region to ensure that immediate action occurs as prescribed in the federal recovery strategy.”¹³⁴
172. Further, the joint review panel for the Shell Jackpine Mine Expansion recommended “that the Government of Alberta work with Aboriginal groups during development of the biodiversity management framework under the LARP to specifically address issues related to caribou in the oil sands region.”¹³⁵
173. The Government of Alberta failed to follow through on any of these recommendations.

¹³⁰ Hearing Transcript, Vol 15, CEAA Doc. No. 644, p 2079, line 18 to p 2080, line 11.

¹³¹ Stantec, *Review of Government of Canada Submissions Regarding Caribou*, Teck Reply Submission, Attachment 10, CEAA Doc. No. 504, at 1.

¹³² Environment Canada, *Recovery Strategy for the Woodland Caribou (Rangifer tarandus caribou), Boreal population, in Canada* (Ottawa: 2012), OSEC Submission, Vol 10, Tab 34, CEAA Doc. No. 488, at 2131-2132.

¹³³ *Jackpine*, supra note 127, at 378.

¹³⁴ *Ibid.*

¹³⁵ *Ibid.*

174. The Government of Alberta wants the economic benefits of oil sands development and makes assurances of strict environmental protection. Yet, the Government then reneges on those assurances by failing to establish the promised environmental protections. The Government of Alberta failed to produce a biodiversity management framework in a timely manner and missed deadlines for the production of caribou range plans. This is negligent and deceptive. It is time for this Panel to hold the Government of Alberta accountable. This Panel should not waste its time in making meaningless recommendations that will be ignored by the Government of Alberta. This Panel should reject the Project as not in the public interest given that the Government of Alberta has failed to put the necessary environmental protections in place.

ii Recommendations

175. OSEC submits that the Project is not in the public interest given the absence of an enforceable framework for the management of biodiversity and the absence of a range plan for the Red Earth caribou herd as required by the *Species at Risk Act*. The Panel must find that the Project is not in the public interest given the failure of the Government of Alberta to put these protections in place.

176. In the alternative, if the Panel finds that the Project is in the public interest, to which OSEC strongly objects, OSEC makes the following recommendations:

- a) the Project should not be approved until the Government of Alberta has completed a biodiversity management framework under the LARP and a range plan that protects 65 percent of the critical habitat of the Red Earth caribou herd;
- b) in the alternative, the Panel should set a condition that construction of the Project not proceed until the Government of Alberta has completed a biodiversity management framework under the LARP and a range plan that protects 65 percent of the critical habitat of the Red Earth caribou herd;
- c) the Panel should set a condition requiring Teck to include the important area for caribou identified north of Project local study area in the wildlife mitigation and monitoring plan; and

- d) the Panel should set a condition requiring that there is a no net impact on biodiversity through a mandatory requirement for conservation offset actions, at a mitigation ratio of at least 4:1, to ensure Project impacts are fully mitigated.

F. WATER ACT DIVERSIONS

i Teck failed to apply for the approvals and licences required for the diversion of Unnamed Creek 2 and Big Creek.

177. Teck failed to apply for the approvals and licences necessary for the diversion of Unnamed Creek 2 and Big Creek. The application is therefore incomplete and should be rejected by the Panel.

178. Teck's plans for the diversion of Unnamed Creek 2 and Big Creek are as follows:

- a) a 25.6 kilometre channel will be constructed to divert runoff from the Big Creek and Unnamed Creek 2 watershed around the plant site beginning in 2021. Diverted flows from the Unnamed Creek 2 watershed will discharge to Big Creek beginning in 2021.¹³⁶ The diversion will increase the 2-year flood peak discharge in Big Creek by 23 percent.¹³⁷ The diversion channel will be partially decommissioned in 2035 with the advancing mine. The downstream reaches of the diversion channel will operate until mine closure;¹³⁸
- b) in 2035, a portion of the channel diverting flows from Big Creek and Unnamed Creek 2 will be relocated west of the main pit to facilitate ongoing mine development. A new 14.6 kilometre channel will begin to divert flows around the southwestern boundary of the main pit. This channel will be an extension of the previously constructed Big Creek and Unnamed Creek 2 diversion, with diverted waters discharging to Big Creek;¹³⁹
- c) beginning in 2037, a flow-splitting structure will be constructed on the Big Creek/Unnamed Creek 2 diversion channel to divert a portion of the Big Creek and Unnamed Creek 2 flow to the off-stream storage pond ("OSSP"). When the OSSP is

¹³⁶ Project Update, Vol 1, CEAA Doc. No. 163, s 7.7.2.2, p 7-10.

¹³⁷ JRP IR 8.4a, CEAA Doc. No. 293, p 8-44.

¹³⁸ Project Update, Vol 1, CEAA Doc. No. 163, s. 7.7.2.2, p 7-10.

¹³⁹ *Ibid*, s. 7.7.2.3, p 7-10.

full, the OSSP will operate as a flow-through structure with excess flows released through a spillway to a downstream reach of Unnamed Creek 2. This diversion will remain operational until 2081.¹⁴⁰

179. Despite these planned diversions, Teck’s revised *Application under the Water Act for Approvals and/or Licences* (“*Application*”) contains no application with respect to Big Creek and or Unnamed Creek 2.¹⁴¹

180. Section 49 of the *Water Act* provides that:

49(1) Subject to subsection (2), no person shall
(a) commence or continue a diversion of water for any purpose, or
(b) operate a works,
except pursuant to a licence unless it is otherwise authorized by this Act.¹⁴²

181. The exceptions in subsection 49(2) of the *Water Act* are not relevant to the Project.

182. In failing to make an application for a licence for the diversion of Big Creek and Unnamed Creek 2, Teck appears to be relying on its assertion that the diversion of water from Big Creek and Unnamed Creek 2 into the OSSP will be passed through and returned to Big Creek and Unnamed Creek 2 without being used.¹⁴³ This assertion misinterprets the licensing provision of the *Water Act*.

183. Teck may be relying on the definition of a “diversion of water” in subsection 1(1)(m) of the *Water Act*:

1(1)(m) “diversion of water” means
(i) the impoundment, storage, consumption, taking or removal of water for any purpose, except the taking or removal for the sole purpose of removing an ice jam, drainage, flood control, erosion control or channel realignment, and

¹⁴⁰ *Ibid*, s 7.7.2.3, p 7-11.

¹⁴¹ *Water Act* Application Form (Revised), Appendix 31b.1, CEAA Doc. No. 206.

¹⁴² *Water Act*, RSA 2000, c W-3, s 49(1).

¹⁴³ Hearing Transcript, Vol 4, CEAA Doc No. 574, p 975, line 19 – p 982, line 15.

(ii) any other thing defined as a diversion in the regulations for the purposes of this Act.¹⁴⁴

184. Although not explicitly stated anywhere in the hearing record, Teck appears to be relying on the exception of “channel realignment” from the definition of “diversion of water”. Teck appears to be under the mistaken impression that unless the Project “uses” the water or fails to return an equal volume following the diversion, no *Water Act* licence is required.
185. This reliance is unfounded for two reasons. First, section 1(1)(m) of the *Water Act* creates an exemption from the licencing requirement when the “sole purpose” is for channel realignment. The planned diversion of Big Creek and Unnamed Creek 2 goes far beyond the sole purpose of channel realignment. The Project eliminates a large portion of the channels of Big Creek and Unnamed Creek, diverts the flow from those creeks into a 25.6 kilometre diversion channel, later rediverts a portion of that diversion channel into another 14.6 kilometre diversion channel and installs a flow-splitting structure that diverts a portion of the flow of these two creeks into the OSSP. This cannot in any reasonable manner be determined to be for the sole purpose of channel realignment.
186. Second, Teck’s own evidence states that a portion of the flow from Big Creek and Unnamed Creek 2 will be diverted for the purpose of filling the OSSP. This is clearly for a purpose not covered in the exemptions found in subsection 1(1)(m) of the *Water Act*.
187. OSEC therefore submits Teck has failed to make the necessary application for a licence under the *Water Act*.
188. Even if it were arguable that Teck’s failure to apply for a licence falls under the exemption in subsection 1(1)(m) of the *Water Act*, which OSEC does not concede, it is clear Teck requires an approval under section 36 of the *Water Act* for the diversion of Big Creek and Unnamed Creek 2. The *Application* does not apply for such an approval.
189. Subsection 36(1) of the *Water Act* states:

36(1) Subject to subsection (2), no person may commence or continue an activity except pursuant to an approval unless it is otherwise authorized under this Act.¹⁴⁵

¹⁴⁴ *Water Act*, *supra* note 142, s 1(1)(m).

¹⁴⁵ *Ibid*, s 36(1).

190. Subsection 36(2) is not relevant to the Project.

191. Under subsection 1(1)(b) of the *Water Act*:

1(1)(b) “activity” means

(i) placing, constructing, operating, maintaining, removing or disturbing works, maintaining, removing or disturbing ground, vegetation or other material, or carrying out any undertaking, including but not limited to groundwater exploration, in or on any land, water or water body, that

(A) alters, may alter or may become capable of altering the flow or level of water, whether temporarily or permanently, including but not limited to water in a water body, by any means, including drainage,

(B) changes, may change or may become capable of changing the location of water or the direction of flow of water, including water in a water body, by drainage or otherwise,

(C) causes, may cause or may become capable of causing the siltation of water or the erosion of any bed or shore of a water body, or

(D) causes, may cause or may become capable of causing an effect on the aquatic environment;

(ii) altering the flow, direction of flow or level of water or changing the location of water for the purposes of removing an ice jam, drainage, flood control, erosion control or channel realignment or for a similar purpose;

(iii) drilling or reclaiming a water well or borehole;

(iv) anything defined as an activity in the regulations for the purposes of this Act

but does not include an activity described in subclause (i) or (ii) that is conducted by a licensee in a works that is owned by the licensee, unless specified in the regulations.¹⁴⁶

192. The diversion of Big Creek and Unnamed Creek 2 clearly involves the construction of a works that will alter the flow and the direction of flow of those watercourses. Further, subsection 1(1)(b)(ii) of the *Water Act* explicitly includes channel realignment in the definition of an activity.

¹⁴⁶ *Ibid*, s 1(1)(b).

193. Teck may argue the diversion falls under the exemption in subsection 1(1)(b)(iv) of the *Water Act* as the channel diversion is an activity “by a licensee in a works that is owned by the licensee”. However, Teck also did not make any application for a licence to divert Big Creek or Unnamed Creek 2. Therefore, it is not a licensee with respect to those works and this exemption does not apply.
194. It is clear Teck must obtain an approval to divert Big Creek and Unnamed Creek 2. Teck has not applied for such approvals.
195. While the Panel found Teck’s application to be complete for the purpose of the hearing, the application is clearly incomplete. The AER has in the past rejected an oil sands development application on the basis that it failed to include a complete *Water Act* application for all required diversions.¹⁴⁷ OSEC submits the Panel must not approve an incomplete application.
196. OSEC is also concerned that not one of the authors of Teck’s application, nor its witnesses, nor its expert consultants appear to have understood that an approval and a licence under the *Water Act* were required for the diversion of Big Creek and Unnamed Creek 2.

ii Recommendations

197. OSEC submits the Project application cannot be approved given the application is incomplete.
198. In the alternative, OSEC submits the Panel cannot approve the Project application until such time as Teck submits an amended *Water Act* application that applies for an approval and a licence for the diversion of Unnamed Creek 2 and Big Creek.

G. COMMITMENTS AND CONDITIONS

i The Panel must convert commitments it relies on as evidence of mitigation into conditions of approval.

199. Throughout the hearing, there was a distinction made between “commitments” and “conditions”:

¹⁴⁷ Alberta Energy Regulator, Proceeding ID 350, Prosper Petroleum Ltd (Prosper) Rigel Project, letter to Boughton Law Corporation et al, (11 October 2017).

- a) Teck “committed” to participate in caribou-focused habitat restoration projects to restore linear features outside of the Project development area, but would not accept that as a “condition”;¹⁴⁸
- b) Teck “committed” to use a minimum of Tier 4 engines or equivalent for the haul truck fleet and also accepted that as a “condition” of Project approval;¹⁴⁹
- c) Teck asserted that Teck Resources Limited would be responsible for all of the Project’s closure and reclamation liabilities, but would not accept that as either a “commitment” or a “condition”;¹⁵⁰
- d) Teck’s agreement with the Athabasca Chipewyan First Nation (“ACFN”) contained “commitments” but not “conditions”.¹⁵¹ Mikisew Cree First Nation’s (“MCFN’s”) submission indicated MCFN and Teck have reached agreement on proposed regulatory “conditions.”¹⁵² Both documents contained “recommendations” for actions by government agencies.

200. Under *CEAA 2012*, the decision-maker with respect to a project reviewed by a review panel must determine the conditions with which the proponent must comply.¹⁵³ The conditions are to be included in the decision statement issued to the proponent.¹⁵⁴ The proponent must comply with the conditions included in the decision statement.¹⁵⁵ It is an offence to not comply with the conditions included in the decision statement.¹⁵⁶

201. The Panel’s role under *CEAA 2012* is to prepare a report setting out the Panel’s rationale, conclusions and recommendations, including any mitigation measures and follow up programs.¹⁵⁷ The Panel must consider mitigation measures that are technically and

¹⁴⁸ Hearing Transcript, Vol 5, CEAA Doc. No. 575, p 1179, line 9 – p 1180, line 6.

¹⁴⁹ *Ibid*, p 1067, line 19 – page 1068, line 21.

¹⁵⁰ Hearing Transcript, Vol 2, CEAA Doc. No. 569, p 310, line 7 – p 311, line 19; page 317, line 21 – page 328, line 8.

¹⁵¹ Athabasca Chipewyan First Nation (“ACFN”) and Teck Resources Limited (“Teck”) Environmental Management Objectives, Commitments and Recommendations, CEAA Doc. No. 571.

¹⁵² Mikisew Cree First Nation Submission, CEAA Doc. No. 497, paras 10, 74, 97 and App 2.

¹⁵³ *CEAA 2012*, *supra* note xx, para 53(1)-(2).

¹⁵⁴ *Ibid*, s 54(1)(b).

¹⁵⁵ *Ibid*, s 6(b).

¹⁵⁶ *Ibid*, s 99.

¹⁵⁷ *Ibid*, s 43(d)(i).

economically feasible and that would mitigate any significant adverse environmental effects of the Project.¹⁵⁸

202. Under the *OSCA*, the AER may grant an approval on any terms and conditions the AER considers appropriate.¹⁵⁹ It is an offence to contravene or fail to comply with a condition of an approval.¹⁶⁰ The Panel may also refuse to grant an approval.¹⁶¹
203. The Panel’s role under the *OSCA* is to refuse to grant the approval of the Project or if in its opinion it is in the public interest to do so, to grant an approval of the Project on any terms or conditions it considers appropriate.¹⁶²
204. Conditions are requirements in addition to or otherwise expanding upon existing regulations. Conditions may be enforced by the AER. The AER expects the proponent to comply with commitments made, but commitments are not enforceable.¹⁶³ Similarly, recommendations made by the Panel to the federal and provincial governments are not enforceable.
205. One of the great failings of the joint review panel process is that a panel may rely on commitments made by the proponent and recommendations made to government departments in determining that a project is in the public interest. For example, in the Shell Jackpine Expansion decision, the joint review panel stated it expected Shell to adhere to all of its commitments.¹⁶⁴ Further, the joint review panel stated that its recommendations to the federal and provincial governments were “important for the successful implementation of the Project and for the future development of the oil sands area.”¹⁶⁵
206. However, a review panel has no recourse when a proponent fails to meet its commitments or a government agency ignores the recommendations. For example, in the Shell Jackpine Expansion hearing process, the panel’s recommendation that the Government of Alberta work toward timely completion of the LARP Biodiversity Management Framework was

¹⁵⁸ *Ibid*, s 19(1)(d).

¹⁵⁹ *OSCA*, *supra* note 1, s 10(3)(a), s 11(3)(a).

¹⁶⁰ *Ibid*, s 24.

¹⁶¹ *Ibid*, s 10(3)(b), 11(3)(b).

¹⁶² *Ibid*, s 10(3), 11(3).

¹⁶³ Alberta Energy Regulator, *TransCanada Pipelines Limited, Applications for the White Spruce Pipeline Project, Fort McKay Area*, (22 February 2018), 2018 ABAER 001, at 34.

¹⁶⁴ *Jackpine*, *supra* note 127, at 1581.

¹⁶⁵ *Ibid*, at 1583.

ignored, yet the panel had relied on the Framework being in place to manage biodiversity impacts. Other recommendations made by the joint review panel were similarly ignored.¹⁶⁶

207. Some panels have attempted to make commitments enforceable by including a condition requiring the proponent to comply with all commitments made in the project application and during the hearing proceedings.¹⁶⁷ However, such blanket conditions are meaningless as future enforcement requires that the regulator or a member of the public be fully familiar with all of the commitments made in the application and during the hearing process. Such familiarity is quickly lost over time and would require significant effort by the regulator or the public to review all such documents at some point in the future to identify all commitments. If the Panel intends to rely on commitments made by Teck, they must translate those commitments into conditions.
208. Teck's agreements with ACFN and MCFN pose unique considerations with respect to commitments and recommendations. The ACFN agreement with Teck presents "mitigation and management commitments" in which Teck commits to certain activities.¹⁶⁸
209. However, the Panel cannot rely on the commitments made by Teck in the ACFN agreement unless those commitments are extracted and established as conditions. The ACFN agreement is a private agreement between parties independent of this hearing process. The agreement can only be enforced by the parties. The ACFN may decide in the future to not enforce certain provisions of the agreement or may decide to accept compensation for a breach of the agreement. This does not protect the public interest and undermines the Panel's reliance on the commitments made in the agreement.
210. Similarly, the proposed regulatory conditions found in the MCFN submission should be given no weight unless extracted and set as conditions on the Project. The proposed regulatory conditions found in the MCFN submission do not appear to be enforceable even between the parties. MCFN simply states they do not object to the Project provided the

¹⁶⁶ Hearing Transcript, Vol 10, CEEA Doc. No. 604, page 2018, lines 4-21.

¹⁶⁷ See for example, *Considerations*, *supra* note 25, Condition 6, p 366.

¹⁶⁸ Athabasca Chipewyan First Nation ("ACFN") and Teck Resources Limited ("Teck") Environmental Management Objectives, Commitments and Recommendations, CEEA Doc. No. 571.

Panel's decision reflects the jointly developed conditions.¹⁶⁹ Again, this offers no protection to the public interest unless the proposed conditions are set as explicit conditions of approval.

211. Both the ACFN agreement and the MCFN submission contain recommendations for the federal and provincial government. However, as discussed, panel recommendations to government agencies are non-binding and cannot be relied upon as evidence of mitigation measures.

ii Recommendation

212. OSEC submits that, if the Panel intends to rely on a commitment by Teck as evidence of a mitigation measure that renders the Project in the public interest, it must translate that commitment into an enforceable condition. If the Panel fails to do so, it has no mechanism by which to protect the public interest if Teck fails to follow through on a commitment.

H. CONCLUSIONS

213. In conclusion, OSEC submits that the Panel cannot find the Project to be in the public interest:
- a) a Project that overestimates the benefits and is unlikely to contribute to the welfare of all Albertans is not in the public interest;
 - b) a Project that relies on a world oil forecast that will take the planet well beyond the 2.0 degree target of the Paris Agreement is not in the public interest;
 - c) a Project that leaves elevated contamination on the Alberta landscape for decades, and in some cases, centuries, is not in the public interest;
 - d) a Project that relies on unproven and untested technologies to deal with fluid tailings and contaminated end pit lakes is not in the public interest;
 - e) a Project that leaves the Alberta taxpayer at risk for the cost of remediating and reclaiming a destroyed landscape is not in the public interest;
 - f) a Government's 19 year failure to meet its commitments to protect the biodiversity and the species at risk in the oil sands area is not in the public interest.

¹⁶⁹ Mikisew Cree First Nation Submission, CEAA Doc. No. 497, para 10.

214. This Project is not just another oil sands project. It is the latest in a long history of devastating occupation and destruction of the landscapes, air, water and wildlife in northeastern Alberta and the communities that depend on those resources. There comes a time when the level of industrial development is “enough”. There comes a time when a decision maker must have the courage to say “enough”. OSEC trusts that this Panel has that courage.

All of which is respectfully submitted this 11th day of December, 2018.

<Original signed by>

<Original signed by>

Barry Robinson
Counsel to the Oil Sands Environmental
Coalition

Kurt Stilwell
Counsel to the Oil Sands Environmental
Coalition