Investor beware: Kinder Morgan Canada's climate risk

Kinder Morgan Canada Limited's[1] (KML) first annual report[2] to its shareholders discloses that the movement to stop climate change represents a potentially insurmountable threat to both the construction of the company's proposed Trans Mountain Expansion Pipeline (TMEP) and to its future economic viability. Yet those warnings on climate-related risks are still incomplete, as the company fails to acknowledge the additional risk posed by the increasing number of court cases facing oil companies for their role in causing climate change and the risk of being held accountable for a portion of climate damages. KML also does not provide an assessment of the resiliency of its business strategy in a scenario where global warming is kept below 2 degrees Celsius (as recommended by the Task Force on Climate-related Financial Disclosure).

KML first addressed climate-related risks in the legal document (the prospectus) underlying its 2017 share offering, which raised $1.75 billion to help finance the TMEP. These risks, which were not addressed in the company's preliminary prospectus, were added after Greenpeace Canada wrote to the Alberta Securities Commission to argue that the company could potentially be misleading potential investors if it didn't acknowledge climate-related risks.[3]

A year later, the climate-related risks identified in the prospectus have been carried over into KML's 2017 annual report (a legal document that must be filed with the U.S. Securities Exchange Commission), but investors looking for carbon resiliency in its portfolio will be left in the dark.

Climate-related financial risk was put on the global agenda in a 2015 speech by Mark Carney entitled *Breaking the Tragedy of the Horizon – Climate Change and Financial Stability.*[4] Carney, the Governor of the Bank of England and chair of the G20's Financial Stability Board (FSB), highlighted the risks that climate change poses to the stability of the global financial system and argued that the risks to financial stability will be minimized if the transition begins early and follows a predictable path, thereby helping the market anticipate the transition to a 2 degree world.

The G20 Finance Ministers and Central Bank Governors subsequently asked the Financial Stability Board to review how the financial sector can take account of climate-related issues. As part of its review, the FSB "identified the need for better information to support informed investment, lending and insurance underwriting decision, and to improve understanding and analysis of climate-related risks and opportunities. Better information will also help investors engage with companies on the resilience of their strategies and capital spending, which should help promote a smooth rather than an abrupt transition to a lower-carbon economy."[5]

These issues were examined in more depth by the Financial Stability Board's *Task Force on Climate-related Financial Disclosures* (TCFD).[6] The TCFD recommended that companies disclose details of the transition and physical risks and opportunities, as well as assess the resiliency of corporate business strategies in a scenario where warming is kept below 2 degrees Celsius. The task force's recommendations are currently being reviewed by Canadian securities regulators.[7]

A reasonable, prudent investor would expect companies to align their disclosures with the TCFD's recommendations. The table below summarizes KML's climate disclosures in its Annual Report relative to the TCFD recommendations.

Climate-related risks as defined by Task Force on Climate-related Financial Disclosures[8]	**Climate-related risks disclosed by Kinder Morgan Canada Limited in its first Annual Report**[9]
Transition Risks	
Policy risk: Policy actions that seek to constrain actions that contribute to adverse effects of climate change (such as carbon pricing).	The imposition of carbon pricing is not expected to have a material direct effect on the Trans Mountain or Trans Mountain Expansion pipelines (p. 25). Changes in public opinion, government policy, blockades or protests (motivated by a concern over climate change) could result in delays or even the cancellation of the Trans Mountain Expansion Pipeline (p. 30). Federal, provincial and municipal governments are adopting policies relating to GHG emissions (including the Paris Agreement's decarbonization targets) that could result in an overall reduction in demand for hydrocarbons, which would negatively impact KML directly and could negatively impact KML customers so that they are unable to honour their contracts with KML (pp 31-32).
Legal risk: Climate-related litigation claims being brought before the courts by property owners, municipalities, states, insurers, shareholders and public interest organizations for a failure to mitigate impacts of climate change or insufficient disclosure around material financial risks.	**No climate-related legal risks are disclosed.** KML does acknowledge that financial distress of its customers could prevent them from fulfilling their contracts (p. 32), but does not disclose that oil companies that are confirmed shippers on KML pipelines are currently subject to legal risks from lawsuits and fraud investigations related to climate change.
Technology risk: Technological innovations that support the transition to a lower-carbon economic system that affect the competitiveness of certain organizations or the demand for their products and services. To the extent that new technology disrupts some parts of the existing economic system, winners and losers will emerge from this "creative destruction" process.	Emerging technologies and public opinion have resulted in an increased demand for energy provided from renewable energy rather than fossil fuels. This could result in decreased global demand for hydrocarbons, which would negatively impact KML directly and could negatively impact KML customers so that they are unable to honour their contracts with KML (pp. 31-32)
Market risk: Shifts in supply and demand for certain commodities, products, and services as climate-related risks and opportunities are taken into account.	KML is dependent on the supply of and demand for the commodities it handles. Technology and policy changes could result in decreased global demand for hydrocarbons, which would negatively impact KML directly and could negatively impact KML customers so that they are unable to honour their contracts with KML (pp 31-32).
Reputation risk: Changing customer or community perceptions of an organization's contribution to or detraction from the transition to a lower-carbon economy.	Opposition to the project, including opposition motivated by a concern over the related increase in greenhouse gas emissions, could lead to changes in public opinion, government policy, blockades or protests that could result in delays or even the cancellation of the Trans Mountain Expansion Pipeline (p. 30).

Climate-related risks as defined by Task Force on Climate-related Financial Disclosures[8]	Climate-related risks disclosed by Kinder Morgan Canada Limited in its first Annual Report[9]
Physical risk	
Acute risk: Event-driven direct damage to assets or indirect impacts from supply chain disruption from increased severity of extreme weather events such as cyclones, hurricanes or floods.	Rising sea levels and extreme weather pose direct physical risks to KML facilities (pipelines and oil terminals) and may result in an increased risk of accidents, increased construction costs or delays to construction schedules (p. 27).
Chronic risk: Longer-term shifts in climate patterns that may cause sea level rise or chronic heat waves.	Rising sea levels and extreme weather pose direct physical risks to KML facilities (pipelines and oil terminals) and may result in an increased risk of accidents. There is also a risk that the company's insurance premiums will increase, or that it may not be able to purchase insurance for facilities vulnerable to increasingly extreme weather (p. 31).
Scenario analysis	
Describe the resiliency of the organization's strategy, taking into consideration different climate-related scenarios, including a 2 degree Celsius or lower scenario.	**No scenario analysis is disclosed.**

What is relatively novel in these disclosures is how it reveals that the climate movement – what KML refers to as "Aboriginal, landowners, environmental groups (including those opposed to oil sands and other oil and gas production operations) and other non-governmental organizations)" – is shifting transition risks, which are usually considered to be a longer-term risk, into a near-term material risk to specific infrastructure projects (in this case, the Trans Mountain Expansion Pipeline).

There are still, however, two major deficiencies in this disclosure.

First, KML does not discuss its exposure to climate-related legal risk. As detailed below, oil companies who have contracted to ship on the Trans Mountain Expansion pipeline have disclosed such risks in their security filings. A number of these companies are currently being sued by U.S. municipalities who are asking the courts to force the companies to pay for climate-related infrastructure and other adaptation costs and/or are being investigated by state attorneys general in the United States for potential climate-related securities fraud.

Second, there is no assessment of the resiliency of KML's business strategy in a scenario where we succeed in keeping warming well below 2 degree   future. This means that reasonable investors seeking medium- to long-term returns are still left in the dark.

Greenpeace Canada therefore submits that in order to provide shareholders and potential investors with a full and accurate appreciation of the risks facing the company and its Trans Mountain Expansion Pipeline project, KML should:

1. Fully disclose climate-related legal risk; and
2. Prepare a below-2 degree Celsius scenario assessment in order to provide a more comprehensive assessment of how the individual risks addressed in the annual report interact

and how KML might adapt its business strategy and capital investment plans to be consistent with a low-carbon future.

A more detailed discussion of risk and disclosure is presented below.

Transition risks

KML acknowledges that it faces two kinds of transition risks: near-term political risks arising from opposition to the project grounded in a concern over its contribution to global warming, and longer-term risks arising from the threats to its business model posed by a successful transition off of fossil fuels (including the oil and gas carried in the company's pipelines).

> Heading: *Major projects, including TMEP [Trans Mountain Expansion Pipeline], may be inhibited, delayed or stopped* (KML 2017 Annual Report, page 27)
>
> Our **ability to continue and complete construction on TMEP** as well as other expansion and new build projects, may be inhibited, delayed **or stopped** by a variety of factors (some of which may be outside of our control), including, without limitation, inabilities to overcome challenges posed by or relate to regulatory or governmental approvals by federal, provincial or municipal governments, difficulty in obtaining, or inability to obtain, permits (including those that are require prior to construction such as the permits required under the *Species at Risk Act*), **governmental or public opposition, blockades**, legal and regulatory proceedings (including judicial reviews, injunctions, detailed route hearings, variance applications and land acquisition processes), delays to ancillary projects that are required for TMEP (including, with respect to power lines and power supply), increased costs and/or cost overruns, inclement weather or significant weather-related events (including storms and rising sea levels (potentially resulting from climate change) impacting our marine terminals) and other issues.

Kinder Morgan's proposal to build a second pipeline from Alberta to its Westridge refinery in Burnaby, British Columbia would allow an increase in capacity from 300,000 barrels per day (bpd) currently (via the existing Trans Mountain pipeline) to 890,000 bpd via the two pipelines. The company's annual report states that while it doesn't currently have plans to do so, the combined pipelines could ultimately "be further increased by over 300,000 bpd to approximately 1.2 million bpd, with additional power and further capital enhancement."[10]

It is a highly controversial project, which has invited comparisons to the conflict at Standing Rock over the Dakota Access Pipeline.[11]

KML acknowledges that it is facing fierce resistance from Indigenous groups, environmentalists, and provincial and municipal governments, as well as adverse public opinion, which could result in serious delays or even the inability to build the TMEP.

> Heading: *We are subject to reputational risks and risks relating to public opinion* (KML 2017 Annual Report, page 29)
>
> **TMEP, our other expansion and new build projects and our business, operations or financial condition generally may be negatively impacted as a result of any negative opinion toward TMEP** or our other expansion and new build projects or as a result of any negative sentiment toward or in respect of Kinder Morgan's or our enterprise-wide reputation with stakeholders, special interest group, political leadership the media or other entities**. Public opinion may be influenced by certain media and special interest groups' negative portrayal of the industry in which we operate as well as their opposition to development projects, including TMEP**.

KML goes on to detail how a poor reputation or negative public opinion can have significant impact on their bottom-line.

> Potential impacts of negative public opinion or reputational issues **may include delays or stoppages in project execution, legal or regulatory actions or challenges, blockades, increased regulatory oversight, reduced support of the federal, provincial or municipal governments** for, delays in, challenges to, or the revocation of regulatory approvals, permits and/or Land Agreements and **increased costs and/or cost overruns in respect of TMEP and/or the loss of degradation of our business generally**.
>
> Reputational risk cannot be managed in isolation for other forms of risk. Credit, market, operational, insurance, regulatory and legal risks, among others, must all be managed effectively to safeguard our reputation. (KML 2017 Annual Report, page 30)

The company then highlights concerns over the climate impacts of an expansion of oil sands production as an important motivating factor for the opposition.

> In particular, our reputation could be impacted by negative publicity related to pipeline incidents, unpopular expansion plans or new projects and due to opposition from **organizations opposed to energy, oil sands and pipeline development and particularly with shipment of production from oil sands regions that are considered to increase GHG emissions and contribute to climate change**. (KML 2017 Annual Report, page 30)

This is reiterated in the sections "Non-governmental organization could impact projects and operations", which states:

> The development of the TMEP, as well as other expansion projects, and our operations generally will at times be subject to public opposition which **could expose us to the risk of higher costs, delays or even project cancellations (including TMEP**) due to **increasing pressure on governments and regulators by special interest groups including Aboriginal groups, landowners, environmental interest groups (including those opposed to oil sands and other oil and gas production operations**) and other non-governmental organizations, **blockades**, legal or regulatory actions or challenges, increased regulatory oversight, reduced support of the federal, provincial or municipal governments, and delays in, challenges to, or the revocation of regulatory approvals, permits and/or Land Agreements. **There is no guarantee that we will be able to satisfy the concerns of the special interest groups and non-governmental organizations** and attempting to address such concerns may require us to incur significant and unanticipated capital and operation expenditures. (KML 2017 Annual Report, page 30)

The concern over blockades (and other forms of peaceful civil disobedience) is well-placed. As of February 2018, more than 23,000 people had signed the Coast Protectors pledge that states: "With our voice, in the courts or the streets, on the water or the land. Whatever it takes, we will stop the Kinder Morgan pipeline expansion."[12] And a February 2018 survey, conducted on behalf of Kennedy Stewart (the federal Member of Parliament for Burnaby South, where the Kinder Morgan terminal is located) found that 44 per cent of British Columbians oppose the pipeline. More significantly, it found that nearly a quarter (23%) of those opposed would consider engaging in civil disobedience to stop it.[13]

Beyond these near-term risks to the construction of the TMEP, there is the longer-term threat to KML's business model posed by a successful transition to non-fossil forms of energy. These transition risks are what Mark Carney has called "the financial risks which could result from the process of adjustment towards a lower-carbon economy. Changes in policy, technology and physical risks could prompt a reassessment of the value of a large range of assets as costs and opportunities become apparent."[14]

High on Carney's list of assets whose value may be subject to reassessment (i.e. stranded) are fossil fuel reserves:

> "While a given physical manifestation of climate change – a flood or storm – may not directly affect a corporate bond's value, policy action to promote the transition towards a low-carbon economy could spark a fundamental reassessment. Take, for example, the IPCC's estimate of a carbon budget that would likely limit global temperature rises to 2 degrees above pre-industrial levels.
>
> "That budget amounts to between 1/5th and 1/3rd world's proven reserves of oil, gas and coal. If that estimate is even approximately correct it would render the vast majority of reserves "stranded" – oil, gas and coal that will be literally unburnable without expensive carbon capture technology, which itself alters fossil fuel economics."[15]

KML acknowledges that, in a world that is making serious progress towards the Paris climate agreement's goal of decarbonizing the economy (i.e. phasing out the use of fossil fuels), the companies that ship on their pipeline might not be able to honour existing contracts or sign new ones.

> Heading: *We are dependent on the supply of and demand for the commodities we handle*.
>
> Our pipelines, terminals and other assets and facilities **depend in large part on continued production of crude oil** and other products in the geographic areas to which our pipelines, terminals and other facilities provide service, and the ability and willingness of shippers and other customer to supply such demand... In addition**, changes in the overall demand for hydrocarbons, the regulatory environment or applicable governmental policies (including in relation to climate change or other environmental concerns) may have a negative impact on the supply of crude oil and other products**. In recent years, a number of initiatives and regulatory changes relating to reducing GHG emissions have been undertaken by federal, provincial, state and municipal government and oil and gas industry participants (**including, for example, the decarbonization targets set forth in the Paris Agreement**). In addition, **emerging technologies and public opinion have resulted in an increased demand for energy provided from renewable energy sources rather than fossil fuels**. These factors could not only result in increased costs for producers of hydrocarbons but **also an overall decrease in the global demand for hydrocarbons**. Each of the forgoing could in turn **negatively impact the prospects of new contracts for transportation or terminaling, renewals of existing contracts or the ability of our customers and shippers to honor their contractual commitments**. See - *Financial distress experienced by our customers or other counterparties could have an adverse impact on us in the event they are unable to pay us for the products or services we provide or otherwise fulfill their obligations to us* below. (KML 2017 Annual Report, pages 31-32)

It does not, however, include a scenario assessment as proposed by the Task Force on Climate-related Financial Disclosure (see Scenario Analysis section below).

Climate-related legal risks

KML acknowledges that its financial success could be harmed if action on climate change results in a reduction in demand fossil fuels, and hence financial distress for KML's oil company customers.

Yet one significant aspect of climate-related risk that KML does not address in its annual report is the risk of climate liability. This is the risk that – just like tobacco companies – fossil fuel companies might get sued for their past, present and future contributions to climate change and/or efforts to delay a policy response to the dangers climate change creates. In the case of tobacco, governments passed legislation to enable these lawsuits, and academic analysts have argued that fossil fuel companies could face a similar fate.[16]

Mark Carney and the Bank of England define liability risk as "the impacts that could arise tomorrow if parties who have suffered loss or damage from the effects of climate change seek compensation from those they hold responsible. Such claims could come decades in the future, but have the potential to hit carbon extractors and emitters – and, if they have liability cover, their insurers – the hardest."[17]

The Task Force on Climate-related Disclosure found that these risks are real and growing: "As the value of loss and damage arising from climate change grows, litigation risk is also likely to increase."[18]

To date, KML has not been sued over climate liability, but its customers are facing a wave of litigation around the world, thanks in large part to improvements in the science of attributing specific impacts (such as rising sea levels) to historic emissions of specific polluters.[19]

Chevron, which is one of the confirmed shippers (customers) for KML's proposed Trans Mountain Expansion Pipeline[20], has explicitly warned of climate litigation risks in its own filing with the SEC. Chevron's 2016 annual report stated "In addition, increasing attention to climate change risks has resulted in an increased possibility of governmental investigations and additional private litigation against the company."[21]

Imperial Oil, another confirmed shipper on TMEP, is potentially exposed to these risks through its parent company Exxon-Mobil (Imperial Oil is majority-owned by ExxonMobil). KML notes the strength of parent companies in the discussion on credit-worthiness of shippers ("These shippers represent or are affiliates of some of the largest producing companies in the WCSB and a significant majority of these committed shippers have, or are subsidiaries of a parent entity that has, an investment grade credit rating"[22]), but does not share comparable information relating to their exposure to climate litigation.

ExxonMobil is currently facing investigations into alleged climate deception from state attorneys general and the Securities Exchange Commission.[23] It is also, along with Chevron and the parent companies of other TMEP shippers Shell Canada Products and BP Canada Energy Trading Company, also facing climate lawsuits filed by New York City[24] and several California municipalities,[25] seeking billions to help pay for protection against rising seas linked to climate change, as well as other potential climate impacts.

This led ConocoPhillips to begin warning investors about climate litigation risk in its 2017 securities filings: "In 2017 and early 2018, cities and/or counties in California and New York have filed lawsuits against oil and gas companies, including ConocoPhillips, seeking compensatory damages and equitable relief to abate alleged climate change impacts. ConocoPhillips will be vigorously defending against these lawsuits."[26] ConocoPhillips is not a confirmed shipper on TMEP, but this is an indication of broader trends within the sector.

And Suncor, another confirmed shippers on TMEP, is one of 45 oil, coal and cement companies facing a human rights investigation in the Philippines. The Commission on Human Rights of the Philippines will be holding hearings in 2018 as part of a world-first investigation into how climate-related human rights harms are exacerbated by oil, gas, and coal companies' business of extracting and marketing fossil fuels.[27] This investigation will not result in direct financial penalties or legal sanctions, but a finding that oil companies are responsible for climate-related human rights violations would set a significant precedent for future cases and could harm their reputations.

Physical risks

Kinder Morgan Canada's annual report addresses physical risks in two places: extreme weather delaying construction and rising seas/extreme weather leading to increased risk of accidents, higher insurance premiums, or even an inability to insure certain assets.

Heading: *Major projects, including TMEP [the Trans Mountain Expansion Pipeline], may be inhibited, delayed or stopped* (KML 2017 Annual Report,page 27).

"Additionally, events such as inclement weather or significant weather-related events (**including storms and rising sea levels (potentially resulting from climate change**) impacting our marine terminals, natural disaster, unforeseen geological conditions and delays in performance by third-part contractors may result in increased cost and/or cost overruns or delays in construction"….

Heading: *Commodity transportation and storage activities involve numerous operational risks that may result in accidents or otherwise adversely affect our operations* (KML 2017 Annual Report,page 31).

"**Some climatic models indicate that global warming may result in rising sea levels, increased intensity of weather, and increased frequency of extreme precipitation and flooding. To the extent these phenomena occur, they could damage physical assets**, especially operations located near rivers and facilities situate in rain susceptible regions. In addition, **we may experience increased insurance premiums and deductibles, or a decrease in available coverage**, for our assets in areas subject to severe weather."

Extreme weather can be a challenge even for pipelines that are buried.[28] Canada's Transportation Safety Board noted that the number of pipeline incidents (accidents, leaks, etc.) was up in 2017 was up following five consecutive years of decrease.[29] A spokesperson for the Board said that this was due to the unusually wet weather resulting in more soil erosion that exposed pipelines, and that they would monitor this in future years to see it there was a pattern.[30]

Scenario Analysis

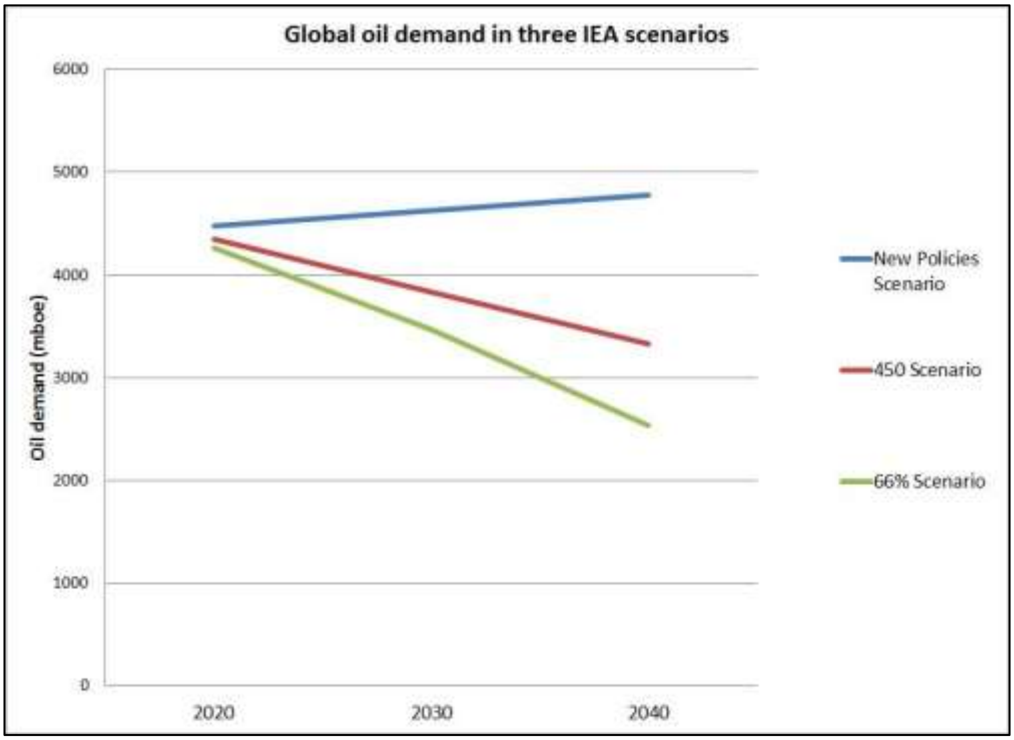
One of the Task Force on Climate-related Financial Disclosure key recommended disclosures focused on the resilience of an organization's strategy, taking into consideration different climate-related scenarios, including a 2 degree Celsius or lower scenario. The TCFD argued that "an organization's disclosure of how its strategies might change to address potential climate-related risks and opportunities is a key step to better understanding the potential implications of climate change on the organization."[31]

In its 2017 financial filing, KML acknowledges that it is exposed to a range of climate-related risks, but does not provide a coherent assessment of how these risks inform their planning or how resilient their business strategy is to a low-carbon future.

For example, one of the elements in Greenpeace Canada's 2017 challenge of Kinder Morgan's prospectus was the absence of scenario planning with respect to future oil demand. We noted that Kinder Morgan relied on an International Energy Agency (IEA) scenario (the New Policies Scenario, which is associated with over 3 degrees Celsius of warming) to argue that there would be demand for the oil that TMEP would ship, but ignored the IEA's low-carbon scenarios where that demand is very much in question.

Greenpeace Canada argued that in the TCFD's technical supplement *The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities*, the Task Force identified a number of possible scenarios (including Greenpeace's Advanced Energy Revolution) but notes that at the global level, "the most well-known, widely used and reviewed scenarios for the transition to a low carbon economy are those prepared by the IEA."

We argued that Kinder Morgan's disclosure with respect to climate-related financial risks was inadequate because the market analysis section of its prospectus selectively relied on IEA's 'New Policies Scenario' to project a growing demand for oil, and excluded from its discussion IEA's '450 Scenario' and the IEA's 66% Scenario (where the demand for oil falls significantly).



It is important to note that none of these scenarios are consistent with the Paris target (to keep warming well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees Celsius), but the 450 and 66% scenarios come closer to achieving that goal and a reasonable investors might expect Kinder Morgan to explore a range of scenarios.

The strategic silence on future oil demand largely remains in KML's 2017 Annual Report, which discloses that policy and technology changes consistent with the Paris Agreement's decarbonisation objective could result in a lower demand for oil, but doesn't provide an assessment of how the company might adjust its business strategy in light of such a possible future.

Future oil demand is only one example. KML's disclosures on climate risks are scattered throughout its annual report, but it would be challenging for interested parties to assess the overall risk that they pose in combination and there is no discussion as to how KML might adapt its strategy based on these risks. This is where scenario modeling can be useful (as shown in the figure below drawn from the TCFD report).[32]

Figure 7

Reasons to Consider Using Scenario Analysis for Climate Change

1. Scenario analysis can help organizations consider issues, like climate change, that have the following characteristics:
   - Possible outcomes that are highly uncertain (e.g., the **physical** response of the climate and ecosystems to higher levels of GHG emissions in the atmosphere)
   - Outcomes that will play out over the medium to longer term (e.g., timing, distribution, and mechanisms of the **transition** to a lower-carbon economy)
   - Potential disruptive effects that, due to uncertainty and complexity, are substantial
2. Scenario analysis can enhance organizations' strategic conversations about the future by considering, in a more structured manner, what may unfold that is different from business-as-usual. Importantly, it broadens decision makers' thinking across a range of plausible scenarios, including scenarios where climate-related impacts can be significant.
3. Scenario analysis can help organizations frame and assess the potential range of plausible business, strategic, and financial impacts from climate change and the associated management actions that may need to be considered in strategic and financial plans. This may lead to more robust strategies under a wider range of uncertain future conditions.
4. Scenario analysis can help organizations identify indicators to monitor the external environment and better recognize when the environment is moving toward a different scenario state (or to a different stage along a scenario path). This allows organizations the opportunity to reassess and adjust their strategies and financial plans accordingly.[44]
5. Scenario analysis can assist investors in understanding the robustness of organizations' strategies and financial plans and in comparing risks and opportunities across organizations.

Conclusion

Kinder Morgan Canada Limited has disclosed that it is exposed to physical and transition risks related to climate change that could block the construction of the Trans Mountain Expansion pipeline, and which threaten the longer-term viability of its business model. In the opinion of Greenpeace Canada, however, not all relevant risks are disclosed.

Greenpeace Canada submits that in order to provide shareholders and potential investors with a full and accurate appreciation of the risks facing the company and its Trans Mountain Expansion Pipeline project, KML should:

1. Fully disclose climate-related legal risk; and
2. Prepare a below-2 degree Celsius scenario assessment in order to provide a more comprehensive assessment of how the individual risks addressed in the annual report interact and how KML might adapt its business strategy and capital investment plans to be consistent with a low-carbon future.

Endnotes

[1] KML was established as a separate company on April 7, 2017. It owns and operates Kinder Morgan pipelines and oil terminals in Canada, but is itself majority-owned by the U.S.-based parent company (Kinder Morgan Incorporated, or KMI). On May 30, 2017, it completed a $1.75 billion initial product offering (IPO), which will help fund the construction of the $7.4 billion Trans Morgan Expansion Pipeline (TMEP) which will transport diluted bitumen from Alberta to the company's oil terminal and export facility in Burnaby, British Columbia.

[2] Kinder Morgan Canada Limited, *Annual Report*, (2017). Available at <https://services.cds.ca/docs_csn/02730565-00000001-00042650-i%40%23Sedar%23Kinder%23Q4%23Form10K-PDF.pdf>.

[3] Greenpeace Canada letter to Alberta Securities Commission regarding the Amended and Restated Preliminary Prospectus of Kinder Morgan Canada Limited's Initial Public Offering (May 17, 2017). Available at <http://m.greenpeace.org/canada/Global/canada/file/2017/05/Greenpeace-letter-to-securities-regulators-on-Kinder-Morgan-IPO.pdf>. For examples of media coverage of the Greenpeace challenge, see Meenal Vamburkar, "Alberta regulator to review Greenpeace's Kinder Morgan IPO challenge", *The Globe and Mail,* (May 18, 2017) and Nia Williams, "Greenpeace asks Alberta regulator to halt Kinder Morgan Canada IPO", *Reuters Canada*, (May 18, 2017).

[4] Mark Carney, "Breaking the tragedy of the horizon - climate change and financial stability", speech given at Lloyd's of London, 29 September 2015. Transcript available at <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability>.

[5] Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosure* (14 December 2016), page iii. Available at https://www.fsb-tcfd.org/publications/recommendations-report/.

[6] See Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosure* (14 December 2016). Available at https://www.fsb-tcfd.org/publications/recommendations-report/.

[7] Details on the CSA review of climate disclosure in Canada are available at < http://www.osc.gov.on.ca/documents/en/News/nr_20170321_csa-backgrounder.pdf>. See Greenpeace Canada's submission to the Ontario Securities Commission and Canadian Securities Administrators' review of the need for climate risk disclosure available at <http://www.greenpeace.org/canada/Global/canada/file/2017/09/Greenpeace%20Canada%20Submission%20to%20CSA%20and%20OSC%20on%20climate%20disclosure%20-%20July%202017.pdf>.

[8] Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosure* (14 December 2016), pages 5-6. Available at https://www.fsb-tcfd.org/publications/recommendations-report/.

[9] Kinder Morgan Canada Limited, *Annual Report*, (2017). Available at <https://services.cds.ca/docs_csn/02730565-00000001-00042650-i%40%23Sedar%23Kinder%23Q4%23Form10K-PDF.pdf>.

[10] KML *Annual Report* (2017), p. 14.

[11] Kyle Bakx, "Kinder Morgan braces for Standing Rock-type protests", *CBC News* (November 5, 2016). Available at <http://www.cbc.ca/news/business/tmx-kindermorgan-bc-oilpatch-pipeline-standing-rock-1.3836489>.

[12] See <www.coastprotectors.ca>.

[13] Staff, "1 in 4 pipeline opponents would consider civil disobedience: poll", *Burnaby Now* (February 18, 2018). Available at <http://www.vancourier.com/news/1-in-4-pipeline-opponents-would-consider-civil-disobedience-poll-1.23178843>.

[14] Mark Carney, "*Breaking the tragedy of the horizon - climate change and financial stability*", speech given at Lloyd's of London (29 September 2015). Transcript available at <https://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability>.

[15] Ibid.

[16] Martin Olszynski, Sharon Mascher and Meinhard Doelle, "From Smokes to Smokestacks: Lessons from Tobacco for the Future of Climate Change Liability" (April 24, 2017). Georgetown Environmental Law Review, 2017. Available at SSRN: https://ssrn.com/abstract=2957921

[17] Ibid.

[18] Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosure* (14 December 2016), page 5. Available at https://www.fsb-tcfd.org/publications/recommendations-report/.

[19] Sophie Marjanac, Lindene Patton and James Thornton, "Acts of God, human influence and litigation", *Nature Geoscience*, vol. 10 (August 28, 2017), pages 616–619.

[20] A list of confirmed shippers for the Trans Mountain Expansion Pipeline can be found on page 69 of the final prospectus for Kinder Morgan Canada Limited's May 25, 2016 initial product offering. Available at <https://services.cds.ca/docs_csn/02614242-00000018-00042650-i%40%23Sedar%23Kinder%23IPO%23Final%23FinalEN-PDF.pdf>.

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