

D I A L O G U E

Informing Investors of Climate Risk: The Impact of Securities Laws in the Environmental Context

Summary

Investors, regulators, and shareholders have shown increasing interest in the information that corporations do and do not disclose about potential climate risks. Legal requirements in this area are complex, governed by an amalgam of securities laws dating back to the 1920s, state anti-fraud statutes, and more recent guidance and voluntary practices specific to climate risk. On March 17, 2016, the Energy Bar Association's Environmental Regulation Committee convened a panel of expert practitioners to discuss these issues. This Dialogue presents a transcript of the discussion, which has been edited for style, clarity, and space considerations.

Tom Munteer (moderator) is a Partner at Paul Hastings LLP.

Leah A. Dundon is Of Counsel at Beveridge & Diamond PC.

Kevin A. Ewing is a Partner at Bracewell LLP.

Elizabeth Lewis is Head of Sustainable Investing at the World Resources Institute.

*The panelists thank **Bennett Resnik** for organizing the panel.*

Tom Munteer: Our topic today is informing investors of climate risk. I'll begin by introducing the panelists in alphabetical order. Leah Dundon, Of Counsel at Beveridge & Diamond, is currently working on her Ph.D. in environmental engineering, management, and policy at Vanderbilt University. Kevin Ewing, a Partner at Bracewell, has represented clients responding to the New York Attorney General's climate disclosure subpoena, which we will discuss today. Elizabeth Lewis leads the World Resource Institute (WRI) sustainable investment initiative; her remarks will explain more fully her function of leading an effort to encourage institutional investors to embrace sustainable investment models.

We'll devote considerable attention to public company disclosure in the U.S. Securities and Exchange Commission (SEC) context but, as most of us know, climate risk

disclosure occurs outside the SEC context, and the panelists will discuss that. We'll view the actions taken by the New York Attorney General (AG) for special impact. The panelists will highlight the important interconnections between mandated and voluntary disclosure of climate risk.

Let's start the discussion by looking outside the SEC context. In late 2015, KPMG released a survey¹ that found that four-fifths of the world's 250 largest businesses reported on their carbon footprints, and one-half had set public carbon reduction targets. Elizabeth will set the stage by describing the state of climate risk disclosure more generally.

Elizabeth Lewis: The KPMG study points to the fact that, at least in the United States, a lot is happening on the voluntary disclosure front because of investor interest and investor pressure on companies, in addition to what is legally required. In general, we are in many ways following trends that started in Europe. Investors who have been thinking about these issues are looking to what's going on in Europe, in particular in the United Kingdom (U.K.), some of the Scandinavian countries, and Paris, which has probably the most aggressive laws in terms of mandating carbon disclosures.

I'll discuss U.S. investor interest in terms of the major institutional U.S. investor markets. First, pension funds have been very strong leaders in several ways because of shareholders filing resolutions. They're pretty focused on oil and gas companies and support better climate-related disclosures. In many ways, they are probably the first group moving on this front. Note that some of this activity may be politically related because of the states where these pension funds are based.

Next, a dramatic shift has occurred in family offices. In the United States, family offices account for a significant chunk of institutionally invested money compared to other countries. This investor group has been very interested in general in sustainable investing because there's so much wealth now being made by younger people who

1. KPMG, CURRENTS OF CHANGE: THE KPMG SURVEY OF CORPORATE RESPONSIBILITY REPORTING 2015 (Nov. 2015), <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/02/kpmg-international-survey-of-corporate-responsibility-reporting-2015.pdf>.

have started their own businesses, many of them based on the technological revolution, and many of them happen to have a real interest in supporting technologies that relate to the environment. Another factor is the generational shift. The Rockefeller family is a famous example where money was initially made from fossil fuels, but the family has gone through a very dramatic fight with Exxon and has now divested from fossil fuels.

Third, religious funds, such as religious institution pension funds, were the first in the socially responsible investing universe screening out things like “sin stocks,” but now they’re taking an increasing interest in climate change, probably in part because the Pope has spoken about it.

Which investor groups have not been big movers on the issue? Universities as a whole have not moved significantly despite the fact that a lot of the climate change conversations have taken place on university campuses, and particularly around fossil fuel divestment. Additionally, foundations have been very slow, and this surprises me. Some of the largest U.S. foundations that spend much of their programmatic time and money on climate change mitigation and environmental causes in general have their endowment money invested very traditionally and have not been big movers on this. Our research shows that this is changing a bit.

In general, there’s a lot of interest in this, for several reasons. Chief investment officers are scared of having the topic of climate change come up and not knowing about it and its implications. They’re scared of having their board of directors ask them about climate change risks and not knowing what answers to give. They also view awareness of climate change risk as an edge because it is their job to produce fairly long-term returns. You have to take into account climate change if you’re a long-term investor.

Another big point is that there’s increasing interest in doing something broader than simply divesting from fossil fuels. A lot of the conversation has been about selling the 200 most carbon-intensive fossil fuel supply companies and coal companies. Increasingly, investors view divesting from fossil fuels as part of their responsibilities to do more. It’s very important to creating good investment trends going forward in terms of actually owning these stocks and engaging with them—which brings us to the conversation today. If you’re not divesting, what are you doing and how are you selecting among the possible things to invest in? Of the ones that you invest in, what do you actually do with them? How do you engage with them?

There are several reasons that this has become the conversation today. The Paris Agreement was a big wake-up call for everybody, making headlines here in a way that raised investor awareness that the trend is coming to the United States. You can’t just say anymore, “The Europeans are really out front on this, but the United States doesn’t have a carbon tax, so I don’t need to pay attention to this.”

Also, numerous respected mainstream investors are starting to talk about this. Michael Bloomberg has been extremely active in this area. He’s now chairing a major financial sustainability board disclosure committee on climate risks.

David Swensen, Chief Investment Officer of Yale University, is revered by institutional investors because he’s produced such strong returns over so many years. He wrote about this in his annual letter to help investors to demand information on what the climate risks are for the companies they invest in. Al Gore partnered with former Goldman investor David Blood over 10 years ago to form what is now a hugely successful long-only listed equities fund that invests in companies that intentionally take sustainability into account in their business planning. So, investors have had success taking material sustainability factors into account in investment decisions. These people are all in the mainstream and very respected in the mainstream financial community.

Another reason for interest on the issue is the 2010 SEC guidance² and the 2015 U.S. Department of Labor guidance³ (that was really focused on pension funds), mentioning taking environmental, social, and governance (ESG) aspirations into account. In terms of how they are doing it, investors work through organizations like the U.N.-supported Principles for Responsible Investment (PRI).⁴ Institutional investors tend to work through associations that are experts at filing shareholder resolutions. But they’re also starting to think about their own actions. So, the PRI has had a tremendous growth in membership.

It speaks to the desire of people to be viewed as sustainable investors or at least responsible investors. I see investors increasingly wanting to be a part of a group of other investors that they can learn from. It’s one thing for them to read a report or to hear the PRI discussed, but most of all they learn from each other and from each other’s actions.

The Montreal Carbon Pledge, part of PRI, is a pledge by investors to measure and disclose on an annual basis their own emissions attached to their portfolios.⁵ But the information for investors that really want to dig down and understand this is not great. That’s a deficiency that will need to be corrected. In general, there’s a great desire to have better information on companies. Some companies can probably speak to the KPMG report view, knowing their full disclosure is a tremendous business advantage. That’s one of the reasons why Walmart has actually been forward-thinking in terms of sustainability. There are probably a lot of different reasons why they are doing that, but certainly there are few companies that understand every detail of their operations better than Walmart. If they can

2. SEC, Commission Guidance Regarding Disclosure Related to Climate Change, 75 Fed. Reg. 6290 (Feb. 8, 2010), *available at* <https://www.sec.gov/rules/interp/2010/33-9106fr.pdf>.

3. U.S. Department of Labor, Economically Targeted Investments (ETIs) and Investment Strategies That Consider Environmental, Social and Governance (ESG) Factors (Oct. 22, 2015), <http://www.dol.gov/ebsa/newsroom/fsetis.html>.

4. The U.N. Principles for Responsible Investment (PRI) began with a request by the Secretary-General for a group of 20 of the world’s largest institutional investors, drawn from 12 countries and supported by experts from industry, government, and civil society, to develop responsible investing principles. PRI was launched in April 2006 at the New York Stock Exchange and currently includes nearly 1,500 signatories. For more information, visit <https://www.unpri.org/about>.

5. For more information on the PRI Montreal Carbon Pledge, visit <http://montrealpledge.org/>.

make it more efficient, that's a huge business advantage for them as well as a reduction in their carbon emissions.

In general, there's a movement from voluntary to more mandatory disclosure, perhaps for legal reasons or because companies think that just to be a modern company in the Fortune 500, you have to have a good handle on this. It may not even matter if that point is regulated or not because companies are going to view this as things that they need to do to compete in the United States and globally in the years to come.

Tom Munteer: Part of your role at WRI is advising on the investment of a \$50-million endowment sustainably. With respect to carbon attributes specifically, I am curious to know what is it that you look at when you are providing advice.

Elizabeth Lewis: What we've done is advise investor groups of the decision by the board of directors to reinvest our own endowment more in alignment with our mission. We purchased the MSCI Environmental Social Governance data platform,⁶ which contains a lot of ESG data in many different categories for companies around the world. MSCI is one of the leading financial information providers for investors around the world. We looked at carbon emissions, the extent to which companies had plans in place to deal in the future with the risk of regulation and increased costs related to carbon, and somewhat relatedly their support of the investment in new technologies.

As an interesting side note, the one thing that you can look at related to this is Stranded Asset Risk⁷—specifically the risk that you own all of these fossil fuel supplies that may not have much value in the future. I think investors in Europe are starting to take that calculation into account, but we did not, at least not yet. There are other data providers besides MSCI: Trucost and Sustainalytics are two other tools. The means by which investors obtain this information is a growing business.

Tom Munteer: I hope we have a chance to discuss a variety of perspectives on the “stranded assets” issue. I want to turn to the mechanics of SEC disclosure. Before Leah takes us through the granular details of that and the 2010 guidance, I want to establish some first principles. When we were preparing for this panel, the concept that kept recurring was registrants' obligations to disclose that which is material and the risks and areas of uncertainty in providing a disclosure that's misleading. Let's have Kevin lay a little foundation before we get into the details.

Kevin Ewing: The SEC regulatory system was born out of the Crash of 1929 and the first years of the Great Depression. At that point in time, the motivating issue for the

Securities Act of 1933⁸ and the Securities Exchange Act of 1934⁹ was financial—providing the regulatory context in which investors could protect their *financial* interests.¹⁰ (See Box One). Assuming a company was in a legal business and running its affairs in accordance with the law, the normative idea was that the important distinction between companies was how well they perform financially.

It is only this interest in financial performance, so the theory went, that would drive someone to invest in a company. So, that was the interest that the securities laws were primarily designed to protect—the financial interest. A company must tell its shareholders and the investing public everything that a reasonable investor would want to know about the company with respect to its financial condition.

The idea of protecting and looking at the financial performance, the financial well-being, of a company eclipsed a host of other factors that do not tie back to the financial. It is not necessarily material under the SEC laws that many investors are interested in or even fervently concerned about a particular issue if in the eyes of management, based on all the knowledge they have about that company, this issue does not represent a material threat or an opportunity to the financial performance and health of the organization. It wouldn't traditionally be viewed as “material.” And that would govern the SEC-related disclosures that the company makes. Outside of the SEC context, companies may make many disclosures, and lots of educational materials are available online, and many companies are using those venues to add substance and perspective on issues beyond what is financially “material.”

Speaking now to the topic of “uncertainty”: It's often hard for business managers to know what an issue is, how to assess the issue, how it might impact the company's performance, and how that issue itself might be dynamic and might change in its capacity to offer either an opportunity or, more importantly, a threat to the business because often threats do not manifest as static things. Many threats are not an episode, but rather a process, described by a dynamic uncertainty. The securities laws try to address uncertainty and guide the registrant in dealing with uncertainty through a twofold rubric that will be discussed later.

Tom Munteer: Two environmental issues have been “anointed” by SEC as deserving of disclosure regardless of the context with respect to materiality and financial performance, and those are Superfund liability and now climate change risk.

6. For more information, visit <https://www.msci.com/esg-integration>.

7. For more information, visit <http://www.smithschool.ox.ac.uk/research-programmes/stranded-assets/>.

8. Pub. L. No. 73-22, 48 Stat. 74, codified at 15 U.S.C. §§77a et seq.

9. Pub. L. No. 73-291, 48 Stat. 881, codified at 15 U.S.C. §§78a et seq.

10. See also the Sarbanes-Oxley Act, Pub. L. No. 107-204, 116 Stat. 745, which was enacted on July 30, 2002, and amends the 1933 and 1934 Acts. Also known as the “Public Company Accounting Reform and Investor Protection Act” (in the U.S. Senate) and “Corporate and Auditing Accountability and Responsibility Act” (in the U.S. House of Representatives), it sets new or expanded requirements for all U.S. public company boards, management, and public accounting firms. A number of its provisions also apply to privately held companies.

Box One: Refresher on Environmental Disclosure Basics

The 1933 and 1934 Acts that followed the 1929 crash require honest and fair disclosure by public companies. The Sarbanes-Oxley Act requires corporate controls and procedures to ensure disclosure integrity. Disclosure rules that apply to environmental issues fit within a framework of rules covering all subjects.

SEC Regulation S-K addresses:

- Compliance and investment affecting the business (Item 101)
- Legal proceedings (Item 103)
- Known trends and uncertainties that could reasonably prove material (Item 303)
- Risk factors that make an offering speculative or risky (Item 503)

Item 101 requires a description of the overall business

- Must recognize the material effects that complying with environmental laws may have on the expenditures, earnings, or competitive position of the company or its subsidiaries
- Must disclose material estimated capital expenditures for environmental control facilities, for the current and following years and for further years as the company deems material

Item 103 requires discussing material pending legal proceedings, but not ordinary routine litigation

- A proceeding under environmental law is not ordinary routine litigation and must be described if the government is a party and it involves potential monetary sanctions, unless the company reasonably believes monetary sanctions will be less than \$100,000

Item 303 requires a narrative discussion of historical results and future prospects

- Emphasis on management's view of the company's current position in relation to past and anticipated future performance
- Must discuss trends, demands, commitments, events, and uncertainties materially affecting liquidity, capital resources, or results of operations;

SEC requires a two-part test:

- Is the trend or uncertainty likely to come to pass?
- If yes or unknown, the company must discuss it, unless management concludes that a material effect is not reasonably likely if it did indeed come to pass

Sarbanes-Oxley requires controls and procedures designed to prevent a misstatement of the company's position. CEOs and CFOs must periodically certify that they are in place.

Kevin Ewing: I disagree with the latter—the SEC has not anointed climate change as requiring disclosure regardless of traditional principles of materiality and certainty. I think they've learned something from their experience with mandatory Superfund disclosure because that hasn't worked very well at all.

Tom Munteer: Although they have guided us, right? That's what Leah is going to explain to us, discussing Regulation S-K¹¹ in particular. She's going to take us through the elements of Regulation S-K and the climate change guidance SEC articulated in 2010.

Leah Dundon: Regulation S-K is the primary source of disclosure requirements that identifies what must be submitted in filings to the SEC, particularly, as relevant to today's discussion, in terms of nonfinancial disclosure. (See Appendix for summary of recent SEC climate risk disclosures). It's important to note that the SEC Climate Risk Disclosure guidance was issued in 2010, a time when what was going on was quite different from the current state of affairs. At the time, SEC was getting a lot of pressure from many investor groups to ramp up the regulatory requirement concerning disclosures of climate-related risks. Additionally, there were several climate change bills pending before the U.S. Congress that would have required increased disclosures, and the agency was getting letters from members of Congress to act on increased climate risk disclosure. What's different

today is that there are no climate change bills pending in Congress.

It was under those circumstances that SEC issued guidance in 2010 on climate change risk disclosures. The agency pointed to four particular items in Regulation S-K that might trigger reporting for climate change risk.

The first is Regulation S-K, Item 101,¹² which corresponds to Item One on Form 10-K, the comprehensive annual report. Item 101 is the description of the business. In that section, companies make disclosures about their main products and services. It's really a description of their business. I've noticed from my reviews of filings that some companies in practice will disclose climate risks in that section, but that section is really just for a description of the business, recent events, and the costs of compliance with certain environmental laws, such as putting in control devices that may be required.

Second is Regulation S-K, Item 103,¹³ which deals with legal proceedings involving certain thresholds; if they're material to the company, they need to be disclosed.

Third is Regulation S-K, Item 303,¹⁴ which is Management's Discussion and Analysis of Financial Condition and Results of Operations, otherwise known as the MD&A. The MD&A is supposed to be the management's-eye view of the company. One of the most important things in that section, especially for climate risk, is that companies must disclose known trends, events, or uncertainties that are reasonably likely to have a material effect on the company. The pur-

12. *Id.* §229.101.

13. *Id.* §229.103.

14. *Id.* §229.303.

11. 17 C.F.R. pt. 229.

pose of the MD&A requirement is for companies to provide a narrative for investors through which they can view the financial reporting of the company and decide, among other things, whether the future prospects for any given company are likely to continue, based on historical performance.

Fourth is Regulation S-K, Item 503c,¹⁵ which is risk factors, and here companies must disclose their most significant risk factors. They often state the risks and how those affect the registrant, but often they do not discuss how they are going to address the risks.

So, those are the four rules that the SEC climate risk disclosure guidance identified; however, they went on to discuss four topics or areas that might trigger reporting under the four disclosure items listed; these are the impact of legislation or regulations, the impact of international accords, the indirect consequences of regulations or business trends, and the physical impacts of climate change.

The guidance makes it very clear that SEC was not setting any new rules. The existing standard of materiality is the same now as it was before the 2010 guidance was issued; the guidance did not change that or modify any kind of rules about disclosure of climate risks. Thus, I would argue that the first three items I mentioned as possible reporting triggers really have to do with the impacts of rules and laws changing and are all covered by existing requirements. Companies are experienced in responding to those types of things and properly reporting on them in filings with SEC.

The fourth possible reporting trigger—the physical impacts of climate change—raises very substantial issues. When I give talks on climate change, I often ask people in the room whether they believe there is strong evidence that extreme weather events are increasing, will continue to increase, and are the result of climate change. Almost everyone raises their hands because that's what the media reports. The reality is the science is not there at all. The only extreme weather we really have very good evidence on (because they have already occurred and they're going to continue to occur) is extreme heat waves. Beyond that, the evidence is either not there at all, or there is evidence, but we've actually not seen trends nor can we draw valid conclusions about expected trends.

One of the examples provided in the SEC guidance is that companies that purchase agricultural products, or companies that are dependent on suppliers that have agricultural products, should consider whether they may be materially adversely affected by droughts and floods. The Intergovernmental Panel on Climate Change (IPCC)¹⁶ is the best consensus science that exists concerning climate

change. Their reports are so long that nobody can possibly read them. Even climate scientists will sometime say they don't read the full report. But it is the best science and there are actually very good charts on extreme weather events that IPCC has put together. For floods and droughts, if you look at these charts, there's virtually no evidence of a trend. There's really no way to know whether floods and droughts are going to increase in the future, much less at a particular location relevant to a company's operations.

Accordingly, for a company to be able to say what its physical risks are or will be from climate change, from droughts, floods, from hurricanes—it's extremely difficult if not impossible, and even more so at the local scale that the SEC seems to be considering. It's especially difficult or even impossible for a company that is reporting on financial quarterly reports because that's their time frame, whereas climate change occurs more on the scale of decades and centuries. So, to me, this is a very problematic area of the SEC guidance.

Tom Munteer: I want to shift from SEC disclosures to what happened in New York, where the state AG has used the Martin Act¹⁷ and issued subpoenas. We'll ask Kevin to set the stage for what the actions were, what the Martin Act provides, who the parties are, and what the resolutions are in the cases where there were resolutions (see Box Two).

Kevin Ewing: The state of New York passed the Martin Act in the early part of the 20th century. It's a typical state anti-fraud statute, but far more powerful than in other states. It prohibited the defrauding of folks by, in particular, the hustlers and other types of swindlers who were taking advantage of investors in the early part of the 20th century. The law is broadly framed and offers extraordinary powers of investigation and enforcement, both criminal and civil. The New York AG's office uses the Martin Act, and they have done so in a number of different contexts in the last few decades in particular.

For example, New York AG Eliot Spitzer used the Martin Act for what I would say were somewhat novel efforts in the financial sector. Then, starting in 2007, AG Andrew Cuomo's office began to initiate subpoena inquiries of particular energy companies to investigate the adequacy of their climate-related disclosure. In the context of these Martin Act investigations, it's hugely important to distinguish between oversight and enforcement. The Martin Act does not make the New York AG an enforcer of SEC laws. Even though SEC laws have preemptive jurisdiction within their field, they do not empower the New York AG to enforce SEC laws. However, the New York AG and other state organs are empowered by state law to oversee and look at the whole raft of disclosure, not just SEC disclosure but the totality of disclosure to the investing public, and to make judgments whether it is adequate to prevent fraud. The adequacy inquiry usually relates to material facts and whether or not the disclosures are misleading.

15. *Id.* §229.503(c).

16. The IPCC is the international body for assessing the science related to climate change. The IPCC was set up in 1988 by the World Meteorological Organization and United Nations Environment Programme to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation. IPCC assessments provide a scientific basis for governments at all levels to develop climate-related policies, and they underlie negotiations at the U.N. Climate Conference—the United Nations Framework Convention on Climate Change (UNFCCC). For more information, visit <http://www.ipcc.ch/>.

17. N.Y. GEN. BUS. LAW art. 23-A, §§352-353 (enacted in 1921, this legislation gives the AG additional powers and discretion to fight financial fraud).

Box Two: Martin Act Efforts on Climate Disclosure

The Martin Act is New York's anti-fraud statute. The Act covers both civil and criminal conduct and empowers the New York Attorney General (NYAG) to enjoin and prosecute conduct detrimental to the investing public. It allows the NYAG to conduct public or private investigations, obtain temporary injunctions, and seek criminal penalties or financial sanctions. Under some circumstances, the NYAG can proceed under the statute without showing that companies actually defrauded the public. Martin Act investigations may end pursuant to an Assurance of Discontinuance (AOD) between the NYAG and the subpoena-recipient, typically after the recipient has provided information to the NYAG about its concerns. Six companies have reportedly received Martin Act subpoenas about climate disclosures to shareholders.

XCEL: Subpoena reported September 2007. AOD executed August 2008. AOD made no allegation of violations. AOD acknowledged extensive voluntary disclosures and GHG-reducing actions by the company. AOD committed the company to disclose climate-related issues in 10-K filings where they are material. AOD terminated four years after effective date.

Dynegy: Subpoena reported in September 2007. AOD executed October 2008. AOD made no allegation of violations. AOD described the company in part as holding interests in LS Power and two coal-fired plants then under construction. AOD committed the company to disclose climate-related issues in 10-K filings where they are material. AOD terminated four years after effective date.

AES: Subpoena reported in September 2007. AOD executed November 2009. AOD made no allegation of violations. AOD acknowledged company's strategies to grow its alternative energy generation business, among other initiatives. AOD committed the company to disclose climate-related issues in 10-K filings where they are material. AOD terminated four years after effective date.

Peabody: Subpoena reported September 2007. AOD executed November 2015. AOD lists the NYAG's findings concerning the company's climate-related disclosures and statements in SEC documents and elsewhere. AOD alleges violations of the Martin Act. The company neither admitted nor denied the alleged factual findings and conclusions of law. AOD committed the company to specific disclosures on SEC forms and to other actions concerning public representations concerning climate issues.

Dominion: Subpoena reported in September 2007. No reported AOD.

Exxon: Subpoena reported November 2015. No reported AOD.

So, these Martin Act investigations do not presumptively mean that there are allegations of violations by the companies. In fact, when those 2007 subpoena investigations were concluded, they were concluded through agreed resolutions called assurances of discontinuance (AOD) but did not set forth any findings of violations or even findings of fact that might lead to an allegation of violation against the companies. Nevertheless, in order to secure those AODs, the companies agreed to undertake a climate-specific analysis of disclosure within the rulebook of the

federal securities laws. That is to say, the companies committed in those documents to disclose to the investing public about climate-related and greenhouse gas emissions-related issues, to the extent material or necessary to avoid being misleading to investors.

So, in some sense, the New York AG is shining a spotlight on climate disclosure. It didn't result in enforcement and it didn't result even in allegations of inadequacy, but it did, I think, mobilize and galvanize a certain amount of interest in the shareholder activist communities and in industry. It's important to note here that the standards to which the companies committed in those AODs, which are public documents, are not different from the standards established by the SEC laws.

Tom Munteer: When you read the trade press, it sounds as if those companies were targeted because they were saying something in a public forum that they weren't saying in an SEC disclosure, or they were saying something that someone perceived as inconsistent. My perception is that's not a good characterization of the situation.

Kevin Ewing: That characterization would be inaccurate. There's no other word for it. The AODs that are public, that concluded the investigations initiated by the 2007 subpoenas, are not concerned with the adequacy of disclosure outside of the context of SEC forms. That's just a fact one can look at. I think what you may be alluding to, Tom, is that in 2015, an AOD was signed by a coal mining company that is qualitatively quite different from the ones I described. For the first time, the New York AG did purport to make factual findings concerning the juxtaposition of what the company knew and what it was saying publicly and what it was disclosing to investors, about climate change. (The company neither admitted nor denied these allegations in the AOD.)

In addition, the coal company's AOD asserted violations of the Martin Act that, again, were not admitted or denied by the company. So, that AOD was different from the earlier ones, which lacked findings and allegations of violations. It's really a crossover document without any distinction between oversight and enforcement, but instead blending the two. Why? Because in some sense, the commitments made, the remedies selected or accepted by the New York AG in this latest AOD, require that the company say very specific things in its SEC forms. So, if you think of it as a cartoon, we have the New York AG holding in his hand the pen on the company's SEC disclosure forms. This raises interesting questions: Who is a proper enforcing agent for the federal securities laws? And should that be the regulatory authority or should it be a different authority that was not governed by the same motivations and interests?

Tom Munteer: And different statutory authority.

Kevin Ewing: Absolutely.

Leah Dundon: One of the companies, one of the major utility providers in Colorado at the time, did an AOD where there actually is a reference to the company's disclosures in another forum, the company's response to the Carbon Disclosure Project survey. There's no allegation that those statements were in any way in conflict or wrong. But to me, it highlights the issue of the need for companies to be careful what they're saying in all forums across all parameters. There was reporting in the press to the effect that some of the investigations were triggered in part by comments made at the quarterly earnings call, outside the context of an SEC filing. I don't know whether that statement I read in the press is accurate or not. But in general, I would say companies do need to be careful about what they're disclosing across many different forums.

Tom Munteer: Let's focus on the environment in which we work, the 2010 SEC guidance, these New York Martin Act actions. Leah, tell us about some disclosures you are seeing and whether they seem truly of value to investors.

Leah Dundon: There's a group called Ceres¹⁸ that is extremely active in this area. One of the things they're doing, which companies seem to be aware of, is combing through SEC filings and making those submissions available on their website so that the documents are easily searchable for climate risk disclosures specifically. You don't have to go to EDGAR¹⁹ if you don't want to. You can go right to these sites and use these tools and go to exactly what the disclosures are. They're also ranking them. Groups such as Ceres put the actual disclosures online and rank them as to whether they are examples of good disclosures.

A well-known beverage company was lauded as having a great climate risk disclosure profile. But what I saw when I looked at it is that essentially they're a beverage company; they rely on water, and their disclosure was that water might become more scarce in a world with a changing climate. That might or might not be true, but how is that relevant to me, to an investor? Are you going to not invest in this particular beverage company because there may or may not be changes in water availability or quality in some part of the world? It's one thing to say that there may or may not be trends in droughts and flood in the future, but how do you know where the beverage company gets their water? Where is their water source, what river, what underground water source? Is that water source stressed by climate change or population pressures? And how will I as an investor be affected?

This type of very general disclosure seems almost meaningless to an investor. The disclosure that I find much more accurate and useful to investors, and one that goes back to the way reporting has been done for a long time, is a company's explanation for how they will address changes in the

law and the regulations. To me, that's more meaningful for an investor than physical effects such as general statements about water availability in a world with a changing climate.

Tom Munteer: The thorny issue I want Leah and Kevin to wrestle with concerns a hypothetical company that is acting smartly and having internal deliberations about the possible effects of climate change on their business. The company has to make a judgment about whether their discussions are material enough to report in the MD&A. Or if they disclose some part of the deliberation and not other parts, would that be misleading?

Leah Dundon: That's a really difficult question. To the extent that you can run scenarios and say, well, what's the worst-case scenario if this pending law is passed or this particular provision that they're debating turns out to be really bad for us? What's the worst-case scenario? What's the best-case scenario? How many scenarios can you run internally and then not disclose them? That issue seemed to be implicated in the recent AOD settlement because the company had made some internal deliberations and the AOD suggested that was not appropriate.

Kevin Ewing: The conundrum you point to is a very real one. What all of us would hate to see is that the fear of crossing a disclosure threshold inhibits a company's managers from doing a full-throated and thoughtful analysis of everything that's important to the company and relatedly to the investors. The securities laws, and hopefully the investing public's motivations, are all focused on excellence here, excellence in understanding what the threats and opportunities are, and excellence in disclosing when the risks are material.

The AOD referred to, which came out late in 2015, along with the Martin Act subpoena investigation also initiated in late 2015 against another large energy company, both call into question some fundamental ideas. One issue is whether a company's scientific awareness of health and safety and environmental risk (all of concern to the public) can alone be sufficient to trigger a disclosure obligation, even when there's as yet no clear mechanism by which the company can discern that its financial performance in particular will necessarily, or even reasonably foreseeably, be affected at a material level. I think that question is inherent within the AOD that we saw last fall and the initiation of the investigation last fall against another company.

Another issue gets to the question of uncertainty. Uncertainty resides in many different dimensions. It's not unitary. We have different levels and ways of thinking about uncertainty in the financial context, in the policy context, in the legal context, and in the scientific context—all with respect to the same issue. How does a company deal with divergent senses of uncertainty across those dimensions—financial, scientific, policy, and legal? That's a pretty hard nut to crack.

And finally, what is the role of federal agencies versus other actors in seeking more and different (presumably

18. Ceres is a nonprofit organization aimed at mobilizing investors and businesses toward sustainability. For more information, visit www.ceres.org.

19. EDGAR is an SEC database in which corporate filings, including the disclosures discussed here, are available free to the public. For more information, visit <https://www.sec.gov/edgar.shtml>.

better) disclosure? The role of non-SEC disclosure, mainly online, such as sustainability reports and so forth—that's new. Well, it's been around for 20 years, but it's new with respect to environment and climate in a way the world hasn't seen on other issues. That's very exciting, and it's a complement, a supplement, to what we are disclosing in the securities context. How to manage non-SEC disclosures? We're still sorting all of that out. I think enforcement-oriented initiatives that retard these developments should not be the order of the day because we are still sorting it out.

Tom Munteer: I'm imagining the counseling role we find ourselves in, and who it is you're interacting with at your client company, and how you have a discussion that has so many variables as you just described. If the SEC in-house counsel calls you, what do you say the company will have to say this year? That's one thing. But can you engage your client in a broader discussion? And how do you know you're having all of the contact people in the company come forward and participate in the conversation?

Kevin Ewing: I deal with this regularly. Last summer, I was called by a senior executive of a very large energy company, a very well-performing energy company. The company was in ruminative mode about the big picture. Climate change was on their radar screen, and they wanted to have very open, thoughtful, and wide-ranging discussions, tapping many sources, unusual sources, in order to gain insights from different perspectives. That kind of effort is superb. By the way, this is a company that is occasionally pilloried for supposedly inadequate attention to this issue. Would that the public knew just how thoughtful the company is! That highlights the difference between what is a mandated disclosure and what is a different kind of public disclosure and discussion.

Leah Dundon: We've seen this a bit in the conflict minerals area in that perhaps disclosure can be a type of enforcement. Enforcement actions can be expensive for an agency. One way to avoid that is to either require disclosure or have all this voluntary disclosure going on and let the markets and reputations guide company actions. There may be a trend of disclosure becoming sort of a de facto enforcement mechanism.

Another issue highlighted by this discussion is the lack of standards. What companies are disclosing is all over the map. SEC is not really enforcing the guidance because it's specified as being guidance, not additional rules, and has indicated it will not be taking additional action on climate risk disclosure guidance in the near term. But there are several nongovernmental organizations (NGOs) that are trying to come up with actual written standards that companies should be obliged to follow. Some companies are voluntarily using some of the standards that are out there. The question for the future is, will the SEC lend its approval to any one of these particular NGO standards that are coming out?

Kevin Ewing: Mind you, SEC does enforce and review a full range of regulatory requirements that it has promulgated. Climate is not special in that regard. They are attentive to it and take measures that are appropriate in their eyes. I think therefore the notion that the Commission is not, for some reason, enforcing the securities rules in the context of climate is not one with which I agree.

In addition, with respect to the absence of a unitary or unified standard for non-SEC disclosure and whether or not SEC should adopt some of the disclosure platforms that have been developed by NGOs, I think that should not happen until we have further thought, an elaboration of what is the role of legally mandated disclosure versus other forms of disclosure. I think this non-SEC-mandated form of disclosure that has grown so quickly is incredibly valuable. We don't need to make it hunt like a different dog. We don't need to make it hunt like an SEC dog. It has its own value. It's generating its own forms of value and it is a whole lot more dynamic than any regulatory body and legal structure can be. Let's embrace that. Let's not try to shoehorn it into the SEC context because SEC already has a standard for disclosure.

Tom Munteer: Elizabeth, as both the KPMG survey and your opening remarks made clear, climate risk disclosure is here to stay regardless of the legal regime that governs it, and Leah's and Kevin's remarks made it clear that there's space for both, and interconnectedness with both, and we need to be attentive to both as we introduce this notion of standards. Can you look into your crystal ball and tell us what we should expect on the horizon?

Elizabeth Lewis: I tend to have the view of the investor in this, and I think it's about how investors are deploying their money and what decisions they're making. They're taking many things into account in terms of data. There's a lot of other information that's going to be coming out, and is coming out now, that investors use to make decisions specifically related to climate and also more broadly. Increasingly, we are going to be seeing disclosures from companies that go to organizations like the Carbon Disclosure Project²⁰ or ones that are potentially going to be more relevant for the investor community and then will be put into decisionmaking tools that investors will want.

I don't want to argue about the science here, but I will say that there is an increasing sense from the investor community that the world 10 years from now is going to be very different from the world today and that resources are going to be more constrained. A lot of companies are starting to think about the changing world as a possible risk in the sense that they want to deal with it and then disclose the information to their investors. The problem here really has been standards and trying to determine, if you're com-

20. The Carbon Disclosure Project (CDP) is a U.K.-based organization whose mission is to incentivize companies and municipalities to disclose environmental impacts in order to provide data for decisionmakers. For more information, visit <https://www.cdp.net/en-US/Pages/HomePage.aspx>.

pany management, what standards you need to meet. If the future of the world in 10 or 20 years is quite uncertain, how does that relate to standards that aren't even set today?

I do think there will be more action in terms of setting standards for the materiality of climate risks and other types of environmental social governance risks. Another organization I want to mention is the Financial Stability Board Task Force on Climate-Related Disclosures that Michael Bloomberg is leading. All you have to do is look at some of the people who are involved in the developments of these standards to know that they're going to carry some weight in the industry. They're very mainstream and respected financial players.

Also, I think there is going to be a reexamination of the time frame in which investors are making decisions. There's increasing criticism of the short-termism of investors and the thinking that if you are running, for example, a pension fund and you need the money to grow, that some of the focus on the various quarter-to-quarter type issues is not necessarily the best mindset. No doubt there are a lot of players in the investment management community who will take the other view. But in general, there is an increasing level of interest in trying to think more long-term as investors.

Tom Munteer: We have an audience question as to whether the current environment appears to create great uncertainty and legal perils, and can we close off those legal perils through some legal regime that creates greater certainty?

Kevin Ewing: I would challenge the premise that there's greater risk in disclosure now than in remaining silent. I don't think that's the case. One of the reasons we have seen so much non-SEC-mandated disclosure online and elsewhere is that it is perceived as very helpful. It's a way to communicate to investors without reference to the materiality threshold of the legal regime. I think that's actually been a very good thing, and that companies feel relatively comfortable with it.

As to the second part of the question, would the legal standard change to encourage a greater volume of disclosure? I think not, and I hope not because the key function of the legal disclosure regime is that you need to put into a concise format what is most important for an investor to know about the company. People barely read the SEC forms. Imagine how many hundreds of thousands of pages could be put out on the Internet, and could have the effect of burying the material stuff so that it's obscured rather than properly disclosed.

Elizabeth Lewis: On the topic of shareholder engagement and activism, the first thing many of these actors look for is companies that are not disclosing. For some of these actors, a company at least gets the first pass if they're disclosing.

Leah Dundon: Companies could start feeling more reputational damage from either not disclosing enough or from

having some problems with their disclosures. Right now, I don't feel that companies are seeing the huge reputational damage or that it is a major issue for them. Actually, Ceres did a very good survey of corporate risk managers on topics companies are most concerned about, and reputational damage is very low on the list.²¹ One of the highest risks of concern reported on the list was regulations. I think about number 10 on the list was climate change regulation, which brings into question the adequacy of the survey if you're putting climate change regulations in categories separate from regulations; but reputational risks, at least in that survey, were not significant contributors.

Kevin Ewing: I'd have to say it's a good thing, not a bad thing, for the following reason: The media can get it terribly wrong about what the state of the science is and where the certainties and uncertainties lie. All the answers to that are very important. Reputation is largely formed around perception. All the things that are so important about rigorous disclosure is that we get away from a superficial perception to reach the more hardcore facts and judgments and analyses. For that reason, I hope that reputation—in the general or generic sense of, hey, what do you think about Company X—does not become a guiding principle in investment. Investors, including WRI and others, ought to pursue their objectives based on their normative goals and their financial goals rather than reputation as a stand-alone.

Elizabeth Lewis: Another audience question: Using Bloomberg's organization as an example, he has funded climate action in an activist way but also acknowledges his involvement in trying to set standards on the financial side. Are there others like him? My answer: There are probably very few powerhouses equivalent to Bloomberg's organization on this issue. His capital translates into a huge influence. The companies under the Bloomberg umbrella are some of the leading data providers and include energy business news reporters.

But there are some other examples. Tom Steyer, for example, has been out front as an activist in a way that I think Bloomberg has not been so much in political terms. But he's an investor and has been very vocal about his opinions concerning fossil fuels and coal, and funding campaigns to elect people who would support climate change regulation. I think other organizations are at least starting to think about aligning more on the issue, particularly in the family foundation category of investors where there's one set of constituents, one set of decisionmakers, allotting more of the programmatic things, such as giving to charity, trying to use their investments to chase some of the same goals that their programs would within their foundation. It's much easier in the family foundation category of investors because you have one set of decisionmakers, versus, for example, universities or institutional foundations.

21. CERES, CLIMATE CHANGE RISK PERCEPTION AND MANAGEMENT: A SURVEY OF RISK MANAGERS (Apr. 2010), available at <https://www.ceres.org/resources/reports/risk-manager-survey/view>.

Appendix One: Excerpts of Climate Change-Related Disclosures in Recent SEC Filings (Form 10-K)

Company	File date	Disclosures
Peabody Energy	February 2015	<p><u>Item 1 - Business</u> Global Climate. Enactment of laws or passage of regulations by the U.S. or some of its states or by other countries regarding emissions from the mining of coal, or other actions to limit such emissions, are not expected to have a material adverse effect on our results of operations, financial condition or cash flows.</p> <p><u>Item 1 - Business and Item 1A-Risk Factors</u> Enactment of laws or passage of regulations regarding emissions from the combustion of coal by the U.S., some of its states or other countries, or other actions to limit such emissions, could result in electricity generators switching from coal to other fuel sources. Further, policies limiting available financing for the development of new coal-fueled power plants could adversely impact the global demand for coal in the future. The potential financial impact on us of future laws, regulations, or other policies will depend upon the degree to which any such laws or regulations force electricity generators to diminish their reliance on coal as a fuel source. That, in turn, will depend on a number of factors, including the specific requirements imposed by any such laws, regulations or other policies, the time periods over which those laws, regulations, or other policies would be phased in, the state of commercial development and deployment of CCS technologies, and the alternative markets for coal. In view of the significant uncertainty surrounding each of these factors, it is not possible for us to reasonably predict the impact that any such laws, regulations, or other policies may have on our results of operations, financial condition, or cash flows.</p>
Exxon Mobil Corp.	February 2016	<p><u>Item 1A - Risk Factors</u> Climate change and greenhouse gas restrictions. Due to concern over the risk of climate change, a number of countries have adopted, or are considering the adoption of, regulatory frameworks to reduce greenhouse gas emissions. These include adoption of cap-and-trade regimes, carbon taxes, restrictive permitting, increased efficiency standards, and incentives or mandates for renewable energy. These requirements could make our products more expensive, lengthen project implementation times, and reduce demand for hydrocarbons, as well as shift hydrocarbon demand toward relatively lower-carbon sources such as natural gas. Current and pending greenhouse gas regulations may also increase our compliance costs, such as for monitoring or sequestering emissions.</p> <p>Preparedness. Our operations may be disrupted by severe weather events, natural disasters, human error, and similar events. For example, hurricanes may damage our offshore production facilities or coastal refining and petrochemical plants in vulnerable areas. Our facilities are designed, constructed, and operated to withstand a variety of extreme climatic and other conditions, with safety factors built in to cover a number of engineering uncertainties, including those associated with wave, wind, and current intensity, marine ice flow patterns, permafrost stability, storm surge magnitude, temperature extremes, extreme rain fall events, and earthquakes. Our consideration of changing weather conditions and inclusion of safety factors in design covers the engineering uncertainties that climate change and other events may potentially introduce. Our ability to mitigate the adverse impacts of these events depends in part upon the effectiveness of our robust facility engineering as well as our rigorous disaster preparedness and response and business continuity planning.</p> <p><u>Item 7 - MD&A</u> International accords and underlying regional and national regulations covering greenhouse gas emissions continue to evolve with uncertain timing and outcome, making it difficult to predict their business impact. For many years, the Corporation has taken into account policies established to reduce energy-related greenhouse gas emissions in its long-term <i>Outlook for Energy</i>, which is used as a foundation for assessing the business environment and business strategies and investments. The climate accord reached at the recent Conference of the Parties (COP 21) in Paris set many new goals, and while many related policies are still emerging, the <i>Outlook for Energy</i> continues to anticipate that such policies will increase the cost of carbon dioxide emissions over time. For purposes of the <i>Outlook for Energy</i>, we continue to assume that governments will enact policies that impose rising costs on energy-related CO₂ emissions, which we assume will reach an implied cost in OECD nations of about \$80 per tonne in 2040. China and other leading non-OECD nations are expected to trail OECD policy initiatives. Nevertheless, as people and nations look for ways to reduce risks of global climate change, they will continue to need practical solutions that do not jeopardize the affordability or reliability of the energy they need. Thus, all practical and economically viable energy sources, both conventional and unconventional, will be needed to continue meeting global energy needs—because of the scale of worldwide energy demand.</p>
Vail Resorts, Inc.	September 2015	<p><u>Item 1A - Risk Factors</u> We are vulnerable to unfavorable weather conditions and the impact of natural disasters. Our ability to attract guests to our resorts is influenced by weather conditions and by the amount and timing of snowfall during the ski season. Unfavorable weather conditions can adversely affect skier visits and our revenue and profits. Unseasonably warm weather may result in inadequate natural snowfall and reduce skiable terrain, which increases the cost of snowmaking and could render snowmaking, wholly or partially, ineffective in maintaining quality skiing conditions, including in areas which are not accessible by snowmaking equipment. In addition, a severe and prolonged drought could affect our otherwise adequate snowmaking water supplies or increase the cost of snowmaking. Excessive natural snowfall may significantly increase the costs incurred to groom trails and may make it difficult for guests to obtain access to our mountain resorts. In the past 20 years, our mountain resorts have averaged between 20 and 39 feet of annual snowfall, which is significantly in excess of the average for United States ski resorts. However, there can be no assurance that our resorts will receive seasonal snowfalls near their historical average in the future. For example, we have experienced very poor conditions in the Lake Tahoe region during the three most recent ski seasons and experienced historic low snowfall across all our resorts during the 2011/2012 ski season. Past snowfall levels or consistency of snow conditions can impact the levels of sales of season passes. Additionally, the early season snow conditions and skier perceptions of early season snow conditions can influence the momentum and success of the overall ski season. Unfavorable weather conditions can adversely affect our resorts and lodging properties as guests tend to delay or postpone vacations if conditions differ from those that typically prevail at such resorts for a given season. There is no way for us to predict future weather patterns or the impact that weather patterns may have on our results of operations or visitation.</p>

Company	File date	Disclosures
ConocoPhillips	February 2016	<p data-bbox="183 1570 207 1732">Item 7 - MD&A</p> <p data-bbox="207 184 310 1732">Climate Change. There has been a broad range of proposed or promulgated state, national and international laws focusing on greenhouse gas (GHG) reduction. These proposed or promulgated laws apply or could apply in countries where we have interests or may have interests in the future. Laws in this field continue to evolve, and while it is not possible to accurately estimate either a time table for implementation or our future compliance costs relating to implementation, such laws, if enacted, could have a material impact on our results of operations and financial condition. Examples of legislation or precursors for possible regulation that do or could affect our operations include:</p> <ul data-bbox="310 184 743 1732" style="list-style-type: none"> • European Emissions Trading Scheme (ETS), the program through which many of the European Union (EU) member states are implementing the Kyoto Protocol. Our cost of compliance with the EU ETS in 2015 was approximately \$0.4 million (net share pre-tax). • In Canada during 2015, the Alberta government amended the regulations of the Climate Change and Emissions Act. The regulations now require any existing facility with emissions equal to or greater than 100,000 metric tonnes of carbon dioxide or equivalent per year to reduce its net emissions intensity from its baseline. The reduction is increasing from the current 12 percent in 2015, to 15 percent in 2016 and to 20 percent in 2017. We also incur a carbon tax for emissions from fossil fuel combustion in our British Columbia operations. The total cost of compliance with these regulations in 2015 was approximately \$4.7 million. • The U.S. Supreme Court decision in <i>Massachusetts v. EPA</i>, 549 U.S. 497, 127 S. Ct. 1438 (2007), confirming that the EPA has the authority to regulate carbon dioxide as an "air pollutant" under the Federal Clean Air Act. • The U.S. EPA's announcement on March 29, 2010 (published as "Interpretation of Regulations that Determine Pollutants Covered by Clean Air Act Permitting Programs," 75 Fed. Reg. 17004 (Apr. 2, 2010)), and the EPA's and U.S. Department of Transportation's joint promulgation of a Final Rule on April 1, 2010, that triggers regulation of GHGs under the Clean Air Act, may trigger more climate-based claims for damages, and may result in longer agency review time for development projects. • The U.S. EPA's announcement on January 14, 2015, outlining a series of steps it plans to take to address methane and smog-forming volatile organic compound emissions from the oil and gas industry. The current U.S. administration has established a goal of reducing the 2012 levels in methane emissions from the oil and gas industry by 40 to 45 percent by 2025. • Carbon taxes in certain jurisdictions. Our cost of compliance with Norwegian carbon tax legislation in 2015 was approximately \$31 million (net share pre-tax). • The agreement reached in Paris in December 2015 at the 21st Conference of the Parties to the United Nations Framework on Climate Change, setting out a new process for achieving global emission reductions. <p data-bbox="751 184 854 1732">In the United States, some additional form of regulation may be forthcoming in the future at the federal and state levels with respect to GHG emissions. Such regulation could take any of several forms that may result in the creation of additional costs in the form of taxes, the restriction of output, investments of capital to maintain compliance with laws and regulations, or required acquisition or trading of emission allowances. We are working to continuously improve operational and energy efficiency through resource and energy conservation throughout our operations.</p> <p data-bbox="862 184 964 1732">Compliance with changes in laws and regulations that create a GHG emission trading scheme or GHG reduction policies could significantly increase our costs, reduce demand for fossil energy derived products, impact the cost and availability of capital and increase our exposure to litigation. Such laws and regulations could also increase demand for less carbon intensive energy sources, including natural gas. The ultimate impact on our financial performance, either positive or negative, will depend on a number of factors, including but not limited to:</p> <ul data-bbox="964 184 1219 1732" style="list-style-type: none"> • Whether and to what extent legislation or regulation is enacted. • The timing of the introduction of such legislation or regulation. • The nature of the legislation (such as a cap-and-trade system or a tax on emissions) or regulation. • The price placed on GHG emissions (either by the market or through a tax). • The GHG reductions required. • The price and availability of offsets. • The amount and allocation of allowances. • Technological and scientific developments leading to new products or services. • Any potential significant physical effects of climate change (such as increased severe weather events, changes in sea levels and changes in temperature). • Whether, and the extent to which, increased compliance costs are ultimately reflected in the prices of our products and services. <p data-bbox="1227 184 1276 1732">The company has responded by putting in place a corporate Climate Change Action Plan, together with individual business unit climate change management plans in order to undertake actions in four major areas:</p> <ul data-bbox="1276 184 1479 1732" style="list-style-type: none"> • Equipping the company for a low emission world, for example by integrating GHG forecasting and reporting into company procedures; utilizing GHG pricing in planning economics; developing systems to handle GHG market transactions. • Reducing GHG emissions: In 2014, the company reduced or avoided GHG emissions by approximately 900,000 metric tonnes by carrying out a range of programs across a number of business units. • Evaluating business opportunities such as the creation of offsets and allowances; carbon capture and storage; the use of low carbon energy, and the development of low-carbon technologies. • Engaging externally: The company is a sponsor of MIT's Joint Program on the Science and Policy of Global Change; constructively engages in the development of climate change legislation and regulation; and discloses our progress and performance through the Carbon Disclosure Project and the Dow Jones Sustainability Index. <p data-bbox="1487 184 1511 1732">The company uses an estimated market cost of GHG emissions in the range of \$8 to \$35 per tonne depending on the timing and country or region to evaluate future opportunities.</p>