SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF NEW YORK

THE PEOPLE OF THE STATE OF NEW YORK, by BARBARA D. UNDERWOOD, Attorney General of the State of New York,

Plaintiff,

- against -

EXXON MOBIL CORPORATION,

Defendant.

Index No.

COMPLAINT

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Plaintiff, the People of the State of New York (the "State"), by Attorney General Barbara D. Underwood, alleges upon information and belief the following against Defendant Exxon Mobil Corporation ("Exxon").

NATURE OF THE ACTION

1. This case seeks redress for a longstanding fraudulent scheme by Exxon, one of the world's largest oil and gas companies, to deceive investors and the investment community, including equity research analysts and underwriters of debt securities (together, "investors"), concerning the company's management of the risks posed to its business by climate change regulation. Exxon provided false and misleading assurances that it is effectively managing the economic risks posed to its business by the increasingly stringent policies and regulations that it expects governments to adopt to address climate change. Instead of managing those risks in the manner it represented to investors, Exxon employed internal practices that were inconsistent with its representations, were undisclosed to investors, and exposed the company to greater risk from climate change regulation than investors were led to believe.

2. For years, and continuing through the present, Exxon has claimed that, although it expects governments to impose increasingly stringent climate change regulations, its oil and gas reserves and other long-term assets face little if any risk of becoming stranded (*i.e.*, too costly to develop or operate) due to those regulations, and reassured investors that it would be able to profitably exploit those assets well into the future. In particular, to simulate the impact of future climate change regulations, Exxon has claimed that, since 2007, it has rigorously and consistently applied an escalating proxy cost of carbon dioxide (CO_2) and other greenhouse gases (together, "GHGs") to its business, including in its investment decisions, business planning, company oil and gas reserves and resource base assessments, evaluations of whether

long-term assets are impaired (*i.e.*, have net present value lower than book value), and estimates of future demand for oil and gas.

3. Exxon's proxy cost representations were materially false and misleading because it did not apply the proxy cost it represented to investors. This was especially true of investments with high GHG emissions, where applying the publicly represented proxy cost would have had a particularly significant negative impact on the company's economic and financial projections and assessments.

4. First, in projecting its future costs for purposes of making investment decisions, conducting business planning, and assessing company oil and gas reserves, Exxon for many years did not apply the publicly represented proxy cost. Instead, the company applied either: (i) a lower, undisclosed proxy cost contained in internal corporate guidance; (ii) an even lower cost based on existing regulations held flat for decades into the future, in lieu of any proxy cost; or (iii) no cost associated with GHG emissions at all.

5. Second, in evaluating its long-lived assets for purposes of potential impairment charges, Exxon applied no proxy costs to its GHG emissions before 2016. In 2016, one year after this office opened an investigation into the company's climate change risk management practices, Exxon began to apply proxy costs in its impairment assessments, but even then, it applied those costs in a very limited manner.

6. Third, in projecting demand for oil and gas, Exxon did not apply its publicly represented proxy cost to the transportation sector, which accounts for more than half of worldwide demand for crude oil.

7. Fourth, Exxon misled investors by presenting a deceptive analysis that concluded that the company faced little risk associated with a "two degree scenario," in which the

production and consumption of fossil fuels is severely curtailed in order to limit the increase in global temperature to below two degrees Celsius compared to pre-industrial levels. Exxon's analysis of the costs associated with a two degree scenario was based on assumptions it knew to be unreasonable and unsupported by the sources upon which it purported to rely.

8. Exxon's fraud was sanctioned at the highest levels of the company. For example, former Chairman and Chief Executive Officer (CEO) Rex W. Tillerson knew for years that the company's representations concerning proxy costs were misleading. In particular, Mr. Tillerson knew that the company was using lower, undisclosed proxy cost figures in its internal guidance, rather than the higher, publicly disclosed proxy cost figures in its public representations, in its investment decisions and business planning. Yet despite this knowledge, and despite the recognition that the publicly disclosed proxy costs more accurately reflected the risk of future climate change regulation, Mr. Tillerson allowed the significant deviation between the higher proxy cost figures in Exxon's public representations and the lower proxy cost figures in Exxon's undisclosed internal guidance to continue uncorrected for years.

9. It was not until an Exxon manager sounded the alarm to Exxon's Management Committee regarding the misleading nature of the company's proxy cost representations that Exxon belatedly increased the proxy cost figures in its internal guidance to conform to those in its public disclosures.

10. However, after Exxon revised its internal guidance, Exxon's planners realized that applying the newly increased proxy cost figures would result in severe consequences to its economic projections, such as "massive GHG costs" and "large write-downs" (*i.e.*, reductions in estimated volume) of company reserves.

11. When confronted with the negative impact to its economic and financial assessments that would result from applying proxy costs in a manner consistent with the company's representations to investors, Exxon's management directed the company's planners to adopt what an employee called an "alternate methodology." Under this so-called "alternate methodology," Exxon did not apply the publicly represented proxy costs. Instead, Exxon applied only the existing GHG-related costs presently imposed by governments (*i.e.*, legislated costs), and assumed that those existing costs would remain in effect, at existing levels, indefinitely into the future, contrary to the company's repeated representations to investors that it expects those same governments to impose increasingly stringent climate regulations in the future. These existing costs were much lower than Exxon's publicly represented proxy costs, and were applied to only a small fraction of the company's emissions, rendering Exxon's proxy cost-related representations false and misleading. By applying this "alternate methodology," Exxon avoided the "large write-downs" it would have incurred had it abided by its stated risk management practices, and failed to take into account "massive GHG costs" resulting from expected climate change regulation.

12. For example, Exxon's decision not to apply the publicly represented proxy costs in connection with fourteen oil sands projects in Alberta, Canada resulted in the understatement of those costs in the company's cash flow projections by approximately $30 billion CAD (Canadian dollars), or more than $25 billion USD (U.S. dollars). For one of these projects, an investment at Kearl, a 2015 economic forecast shows that the company understated projected undiscounted costs of GHG emissions by as much as 94% – approximately $14 billion CAD ($11 billion USD) – by applying lower costs to GHG emissions than those publicly represented.

13. Exxon's decision not to apply the publicly represented proxy costs in its company oil and gas reserves assessments enabled the company to avoid "large write-downs" in reserves that it would have had to take had it abided by its public representations. For example, at Cold Lake, an oil sands asset in Alberta, the company's own planners noted that applying a proxy cost consistent with Exxon's public representations would shorten the asset's projected economic life by 28 years and reduce company reserves by more than 300 million barrels of oil equivalent – representing billions of dollars in lost revenues. When presented with these facts, Exxon management instructed the planners to apply a lower cost projection based on existing regulations, contrary to the company's public representations.

14. Additionally, Exxon repeatedly represented that, per the applicable accounting rules, the economic assumptions it applied for impairment evaluation purposes were consistent with those used elsewhere in its business. However, prior to 2016, Exxon did not apply its publicly represented proxy costs in assessing whether its long-lived assets, including production sites that were expected to produce oil and gas for decades into the future, were impaired (*i.e.*, had a value that was less than the book value on the company's balance sheet). Even in 2016, Exxon applied proxy costs only in a very limited manner in its impairment evaluations.

15. Moreover, despite its representation that it would employ proxy costs across the company's business, Exxon did not apply its publicly represented proxy cost in projecting demand for liquid fuels in the transportation sector. And even to the extent Exxon did apply a proxy cost in projecting energy demand, it failed to incorporate those projections in setting its internal oil and gas price assumptions. Instead, Exxon set internal oil and gas price projections based on the desire of its then-CEO Rex Tillerson to send a signal to the organization, rather than any process influenced by proxy costs. Exxon's failure to incorporate proxy costs into its oil and

gas price projections resulted in the proxy costs being an illusory risk management tool with no actual economic impact on the company.

16. In addition to its misrepresentations concerning proxy costs, Exxon repeatedly presented a highly misleading analysis to investors to reassure them that the company faced little or no risk of its assets becoming stranded under a two degree scenario. Exxon falsely implied that its analysis was supported by reputable academic and government sources, when it was not. Even after being warned by an author of the key source upon which Exxon purported to rely that the company's analysis was "misleading," Exxon continued to present this analysis to investors.

17. Exxon's representations were important to investors. Exxon made these representations to placate investors who increasingly demanded that Exxon explain whether and how it was addressing the long-term economic consequences of increasing regulation of GHG emissions around the world, and to assure investors that the company was effectively managing that risk.

18. Exxon's investors relied on these representations to assess whether the company was adequately managing the risk to its business posed by future climate change regulation. For example, in a 2016 assessment of Exxon's exposure to emerging climate change regulations, Vanguard Group, Inc. ("Vanguard") – the company's largest shareholder – rated Exxon's risk as "low" based on Exxon's claims that it was protecting itself against the risk of rising regulatory costs by applying its publicly represented proxy cost.

19. Through its fraudulent scheme, Exxon in effect erected a Potemkin village to create the illusion that it had fully considered the risks of future climate change regulation and had factored those risks into its business operations. In reality, Exxon knew that its representations were not supported by the facts and were contrary to its internal business

practices. As a result of Exxon's fraud, the company was exposed to far greater risk from climate change regulations than investors were led to believe.

20. Indeed, rather than protecting against the risk of future climate change regulation by reducing investment in GHG-intensive assets, Exxon expanded its investments in such assets. Between 2008 and 2016, the percentage of Exxon's oil and gas development and production (*i.e.*, upstream) projects in GHG-intensive heavy oil and oil sands increased from less than 20% to more than 30% in oil-equivalent barrels. This increased the GHG intensity of the company's upstream operations and, in turn, increased the company's exposure to future climate change regulation.

21. The State brings this action to enforce General Business Law § 352 *et seq.* (securities fraud) and Executive Law § 63(12) (persistent fraud or illegality), and for common law fraud. The State seeks all appropriate relief to prevent Exxon from making false or misleading claims about its climate change risk management, to compel curative disclosures to investors, and for all appropriate monetary relief for Exxon's fraudulent conduct, including disgorgement of all amounts gained or retained as a result of the fraud, damages, restitution, and costs.

PARTIES

22. The State brings this action by and through Attorney General Barbara D. Underwood.

23. The Attorney General is the chief law enforcement officer of the State of New York and is charged by law with protecting the integrity of the business and securities markets within New York, as well as the economic health and well-being of investors who reside or transact business in the State.

24. The Attorney General is authorized to bring this action and to assert the causes of action set forth below pursuant to General Business Law § 352 *et seq*. (the "Martin Act"), Executive Law § 63(12), and under the common law.

25. Exxon is a New Jersey corporation and has its principal place of business at 5959 Las Colinas Boulevard, Irving, Texas 75039. It is registered to do business in New York State as an active Foreign Business Corporation and maintains a registered agent for service of process with the Corporation Service Company, 80 State Street, Albany, New York 12207.

26. Exxon was formed on November 30, 1999, by the merger of Exxon Corporation (formerly the Standard Oil Company of New Jersey) and Mobil Oil Corporation (formerly the Standard Oil Company of New York).

27. Since 1999, Exxon has been the world's largest investor-owned oil and gas company. At year-end 2017, there were approximately 4.2 billion shares of Exxon common stock issued and outstanding. The stock is listed on the New York Stock Exchange (NYSE) under the ticker symbol XOM.

28. Exxon operates through a number of wholly-owned subsidiaries, including ExxonMobil Development Company, ExxonMobil Production Company, ExxonMobil Gas & Power Marketing Company, XTO Energy, Inc., ExxonMobil Fuels & Lubricants Company, and ExxonMobil Chemical Company. Additionally, Exxon owns a majority interest in Imperial Oil, Ltd. ("Imperial"), a Canadian oil and gas company.

29. Exxon has three main business segments, from which it derives essentially all of its earnings: (1) upstream, which involves the exploration, development, and production of oil and gas resources; (2) downstream, which involves the refining, marketing, and distribution of

petroleum and derivative products (*e.g.*, gasoline); and (3) chemical, which involves the manufacture and sale of petrochemicals (*e.g.*, plastics).

30. Exxon has made three public debt offerings in recent years, which collectively total over $25 billion. In 2014, Exxon made a public debt offering of $5.5 billion, with HSBC Securities (USA) Inc., J.P. Morgan Securities LLC ("J.P. Morgan"), and Morgan Stanley & Co. LLC ("Morgan Stanley") as lead underwriters. In 2015, Exxon made a public debt offering of $8 billion, with Citigroup Global Markets Inc. ("Citigroup"), J.P. Morgan, and Morgan Stanley as lead underwriters. In 2016, Exxon made a public debt offering of $12 billion, with Citigroup, J.P. Morgan, and Merrill Lynch, Pierce, Fenner & Smith Incorporated as lead underwriters.

JURISDICTION AND VENUE

31. This Court has jurisdiction over the subject matter of this action, personal jurisdiction over Exxon, and authority to grant the relief requested pursuant to General Business Law § 352 *et seq.*, Executive Law § 63(12), and the common law.

32. Pursuant to C.P.L.R. § 503, venue is proper in New York County, because Plaintiff resides in that county, and because a substantial part of the events and omissions giving rise to the claims occurred in that county.

FACTUAL ALLEGATIONS

I. CLIMATE CHANGE REGULATION AND INVESTOR CONCERNS

A. Climate Change and Global Warming

33. Observations of air and ocean temperatures and other climate-related metrics, in combination with improved understanding of the underpinnings of the Earth's climate system,

confirm the well-accepted scientific consensus: the Earth's climate system is changing rapidly, primarily due to human activities, especially activities that cause GHG emissions.

34. When emitted into the atmosphere, GHGs (including CO_2) trap heat and energy that otherwise would leave the Earth. Anthropogenic GHG emissions, including from the combustion of fossil fuels, have been increasing since the start of the industrial era, with a dramatic increase of over 80% between 1970 and 2010.

35. Increasing GHG emissions have resulted and will continue to result in significant adverse global impacts, including but not limited to: the increase in number and severity of extreme weather events, including floods, hurricanes, heat waves, and drought; wildfires; rising sea levels; ocean acidification; increased air pollution; and exacerbation of the spread of infectious diseases.

B. Response by Governments

1. Nations of the World Through the United Nations

36. In 1992, the United Nations Framework Convention on Climate Change ("Convention") was opened for signature at the Earth Summit in Rio de Janeiro, Brazil. The treaty's objective was to stabilize the atmospheric concentration of GHGs "at a level that would prevent dangerous anthropogenic interference with the climate system." The Convention entered into force in 1994, and currently has 197 parties, including the United States. Member states conduct an annual Conference of the Parties, where they assess the progress made to achieve the treaty's objective and periodically adopt implementation agreements.

37. Most recently, the parties adopted the 2015 Paris Agreement, which aims to keep the global temperature increase well below two degrees Celsius above pre-industrial levels. The Paris Agreement requires that each participating nation formulate a nationally determined

contribution and a plan to reduce GHG emissions, and pursue domestic measures to achieve that contribution.

38. As of this filing, 181 nations and the European Union ("EU"), representing more than 88% of global GHG emissions, have ratified or acceded to the Paris Agreement, and a further 15 nations have signed but not ratified or acceded to the agreement.

2. The United States

39. The U.S. Environmental Protection Agency ("EPA") has found that GHG emissions endanger public health and welfare, and has adopted regulations limiting GHG emissions from cars, trucks, power plants, oil and gas development, and other sources.

40. In addition to federal regulation of GHG emissions, numerous states have adopted regulations restricting GHG emissions from electric power generation, motor vehicles, and other sources. A significant number of states and municipalities also have made commitments substantially to reduce their GHG emissions over the coming decades.

41. In response to President Trump's announcement on June 1, 2017 that the United States would withdraw from the Paris Agreement, effective November 2020, a bipartisan coalition of states and Puerto Rico formed the United States Climate Alliance, which is committed to upholding the principles of the Paris Agreement by (i) reducing emissions by at least 26-28% below 2005 levels by 2025, and (ii) tracking and reporting progress to the global community.

3. Other Governments

42. The World Bank reports that, in 2007, ten governmental entities including the EU had adopted policies, regulations, taxes or other fees imposing a cost on GHG emissions. By 2014, the number had grown to 36, and in 2018 to 53, throughout the world.

43. In 2005, the EU established its Emissions Trading Scheme ("EU ETS"), a cap-and-trade system that limits total GHG emissions and penalizes those who exceed certain allowances. The EU ETS is effective in all 28 EU countries, and in Iceland, Liechtenstein, and Norway. In 2007, the EU set a target of a 20% reduction in GHG emissions from 1990 levels by 2020, and it is on track to exceed this target, having already reduced its emissions by 23% from 1990 levels by 2016.

44. Other governments, such as the Canadian provinces of Alberta and British Columbia, have adopted carbon tax schemes, which set a price per ton on GHG emissions from the combustion of fossil fuels.

45. Alberta's carbon tax is particularly relevant because Exxon, through Imperial and otherwise, has substantial investments in Alberta's oil sands. The oil sands consist of large reservoirs of bitumen, a tar-like substance which functions as an alternative to crude oil, but which requires more energy to produce and process, and is thus more GHG-intensive, than conventional crude.

46. In 2007, Alberta adopted a carbon regulation called the Specified Gas Emitters Regulation ("SGER"), which effectively imposed a GHG price of $15 CAD per ton on emissions from fossil fuel production and coal-fired power generation. The fee applied only to the portion of emissions that exceeded certain emissions-intensity targets. In 2016, the price increased to $20 CAD per ton. In January 2018, Alberta replaced the SGER with the Carbon Competitive Incentive Regulation ("CCIR"), which generally imposes a price of $30 CAD per ton of GHG emissions that exceed certain intensity targets.

47. In 2017, Alberta also adopted a carbon tax that applies to GHG emissions from heating (commercial and residential) and transportation fuels in sectors not covered by the

SGER/CCIR, with some exemptions. In 2018, the tax rate increased from $20 to $30 CAD per ton of GHG emissions.

C. Importance to Investors of Climate Change Regulatory Risk

1. Importance to Investors of Long-Term Value

48. Many of Exxon's shareholders invest in the company for the long term. Exxon's shareholders include New Yorkers planning for retirement and for their children's college education, as well as pension funds, mutual funds, life insurance companies, and other institutional investors, many of which are based in New York.

49. Approximately 54% of Exxon stock is held by institutional investors, which own Exxon shares on behalf of millions of individuals, including retirees and those saving for retirement. Exxon's top three institutional shareholders are Vanguard, BlackRock, Inc. ("BlackRock"), and State Street Corporation ("State Street"), each of which is also among Exxon's largest bondholders.

50. Additionally, numerous state, municipal, and other pension funds hold Exxon stock on behalf of teachers, clerical workers, nurses, and many others. As of June 2018, the New York State Common Retirement Fund and New York State Teachers Retirement System held Exxon shares with a value of over $900 million and over $500 million, respectively. As of May 2018, New York City Pension Funds held Exxon shares with a value of over $700 million. Pension funds in other states likewise hold significant positions in Exxon stock. As of their most recent financial disclosures, state pension funds across the country directly owned nearly 75 million shares of Exxon stock worth approximately $6 billion at Exxon's current stock price; state pension funds in California, New York, Florida, Ohio, Wisconsin, New Jersey, and Texas owned shares worth more than $300 million each.

51. In an article entitled "Who owns ExxonMobil? Chances are you do," Exxon's former Vice President of Public and Government Affairs observed that "[p]rivate and public pension funds – managing assets on behalf of more than 60 million U.S. households in 145 million accounts – own nearly a third of all shares in U.S. oil and gas companies . . . . Mutual funds and individual retirement plans account for nearly 40 percent more."

52. Exxon actively solicits these long-term investors, stating that it "pursues business strategies that maximize long-term shareholder value" and that it is "confident in [its] ability to continue to create shareholder value over the long term." For example, Mr. Tillerson told market analysts in 2016:

> Well, as we have said many times, in terms of growth – whether it's volume growth, reserve growth, market share growth . . . our approach to the business has never changed. We really are trying to undertake the most attractive opportunities that we see, thinking about them in terms of 30 years. Are we going to be happy with this over the next three decades? Not, are we going to be happy with it over the next three or four years . . . .
>
> You've heard me say many times, we are not for the short term shareholder, necessarily. That's not what we build the business around. It's not how we run the business. **We run the business for people that are going to own these shares a very long time, that we hope the shares are in the trust that they leave their children and their grandchildren.** Whenever we run into challenges and I have to think about how am I going to pay the dividend? I think about those people. (emphasis added)

53. Climate change risk is an issue of particular importance to long-term investors. For example, Vanguard, Exxon's largest investor, has noted that "climate change poses risks to investors in certain sectors, such as oil and gas, and . . . these risks are most prominently skewed towards long-term asset owners like Vanguard."

54. Exxon has assured its investors that it recognizes that a long-term focus on the future of energy and carbon regulation is of critical importance to the health of its business. For

example, Exxon's Vice President of Corporate Strategic Planning noted in a public presentation concerning the company's 2014 *Outlook for Energy* report that "we are making billion-dollar investment decisions, and the horizon for these projects, a typical project of ours will last easily 50 years. So we have to keep a strong focus on what is going to happen in the future."

2. Importance to Investors of Climate Change Disclosures

55. Over the past decade, investors concerned with Exxon's long-term value have increasingly expressed interest in the company's climate change disclosures. For its part, Exxon understood that its proxy cost and other climate change regulatory risk disclosures were important to investors.

56. In June 2014, Exxon's Vice President of Investor Relations summarized this trend in an internal email concerning Exxon's responses to an annual questionnaire from CDP (formerly known as the Carbon Disclosure Project), a nonprofit organization that collects information on behalf of institutional investors, including current and prospective Exxon shareholders, with over $87 trillion in funds under management:

> I sometimes get asked if "**real investors**" read the CDP or even care that we participate. I was in New York City last week meeting with some of our largest shareholders, and for the first time, two different portfolio managers mentioned the CDP and [Exxon's Corporate Citizenship Report] to me in a positive manner. A few other shareholders mentioned the **growing importance** of ESG (environmental, social, governance) issues to their clients, and thus we could expect to see more interest from buy side analysts and portfolio managers directly, and indirectly through . . . their ESG analysts.
>
> In fact, we had a call today with two such ESG analysts from Goldman Sachs, following our meeting last week with the investment group of [Goldman Sachs]. They were complimentary of the Energy Outlook, the [Corporate Citizenship Report], and the two environment related reports we produced during Proxy season [*Energy and Climate* and *Managing the Risks*]. . . . All of the folks we talked to said these types of efforts have enhanced our reputation

> within the investment community and encouraged ExxonMobil to continue. Apparently "reputational risk" has moved into the **upper tier of risks** that investors are concerned about and expect companies to manage. (emphasis added)

57. Investor interest in the management of climate change risk has been growing for years. In 2010, Exxon recognized internally that "managing climate change risks" is a "material" issue in its corporate citizenship reporting to external audiences, including financial institutions, because those risks may have a "substantial impact" on the company.

58. In addition, over 2,000 investment firms, pension systems, and other institutions around the world, with over $80 trillion in assets under management, have signed the United Nations-backed Principles for Responsible Investment. These firms have committed to incorporate environmental, social, and governance ("ESG") issues into their investment analysis and decision-making, with climate change being the "highest priority" among these issues. The signatories include major Exxon investors; for example, BlackRock signed the Principles for Responsible Investment in 2008, State Street in 2012, and Vanguard in 2014.

59. Many of Exxon's major investors have released publications concerning the importance of climate change regulatory risk, also known as "carbon asset risk," in their investment decision-making.

60. J.P. Morgan Chase & Co., a major Exxon investor and underwriter of Exxon's bonds, issued an Environmental and Social Policy Framework in 2014, which asserted that the bank's transaction and portfolio reviews include "how clients manage climate change related risk factors." Likewise, a 2017 report by J.P. Morgan Asset Management observed that it endeavors to understand how companies in which it invests are "managing and adapting to various climate risks and opportunities, including those presented by evolving government policies," which can "have a material impact for high-carbon intensity sectors."

61. Morgan Stanley Smith Barney LLC, the financial advisory division of a major Exxon investor and underwriter of Exxon's bonds, stated in a 2016 report that "climate change is increasingly recognized as a material investment consideration that investors cannot ignore"; that increased GHG regulation "could dramatically impair the profitability of higher-carbon energy sources"; and that these risk factors "could strand assets in a range of sectors, resulting in unanticipated or premature write-downs, devaluations or conversion to liabilities." This report also noted that Morgan Stanley Equity Research analysts have "incorporated this issue when analyzing their covered companies." The report concluded that climate change risk is a "critical investment issue," both for investors who are explicitly focused on sustainability, and also for "mainstream" investors, including "the world's largest investors." The report noted that investors explicitly focused on incorporating sustainability into their investment strategies "represented more than $1 out of every $6 of professionally managed assets in the United States, totaling $6.57 trillion" by the end of 2014, a significant increase from prior years. Another Morgan Stanley report in 2016 reiterated that the "risk associated with stranded assets" resulting from climate regulation "could have the potential to cause significant reductions in not only the value of specific companies, but also the long-term value of entire sectors."

62. State Street Global Advisors, Inc., the investment management division of Exxon's third-largest shareholder, stated in 2017 that the way that companies integrate climate risk into long-term strategy is "particularly important" in the oil and gas sector "where long investment horizons could render assets stranded." State Street also asserted that the "[c]osts of controlling emissions to meet targets should be considered when making capital allocation decisions to arrive at the true cost of an asset." State Street further noted that "carbon price assumptions are important" because they "provide insights into how companies account for

climate risk in the planning process" and "are key in helping companies identify potential stranded assets and mitigate the risk of investing in assets that may become stranded in the future."

63. Equity research analysts covering Exxon have also highlighted the importance of climate change regulatory risk in their recommendations. For example, in a 2015 report, HSBC Global Research wrote that "[f]ossil fuel companies, or some of their assets, may become economically non-viable in the future" due to climate change regulation, among other factors. HSBC noted that expensive oil and gas ventures might be at risk, while "oil sands face the greatest stranding risks . . . given the combination of high breakeven price and higher carbon intensity of production." HSBC Global Research had previously observed the risks of stranding associated with oil sands assets in a 2013 report.

64. Exxon knew that there was widespread investor interest in GHG-related topics, including through its knowledge of Bloomberg Terminal usage trends. In 2013, an Exxon Public and Government Affairs advisor observed that, in a recent six-month period, there had been 44 million hits on Bloomberg ESG data. The advisor noted that this data was "used by financial analysts," who showed "far higher interest in [ESG] disclosure scores and GHG emissions than in traditional governance metrics."

65. Likewise, a 2014 survey conducted by PricewaterhouseCoopers, LLP ("PwC"), Exxon's independent auditor, found that over 80% of institutional investors had considered sustainability issues in one or more contexts in the past year, and most incorporated such issues into their investment strategies. Even more expected to do so in the coming years. With respect to climate change and the energy sector in particular, PwC analysts concluded in 2014 that "[t]he investor community is actively analyzing" the issue of "unburnable carbon" (*i.e.*, stranded oil

and gas assets), and noted that this concern extends "way beyond the activists already." In particular, PwC has highlighted investor interest in Exxon's 2014 climate change reports as an example of how "[i]nvestors are increasing their attention on how carbon regulations and policies impact companies."

3. Shareholder Advocacy and Exxon's Response

66. Exxon shareholders have submitted numerous proposals requesting that the company take various actions addressing climate change. These proposals are included in the annual proxy statement that Exxon is required by law to send to all shareholders prior to voting at Exxon's annual shareholder meeting. The company has consistently opposed these resolutions.

67. For example, beginning in 2007, and for several years thereafter, Exxon shareholders sponsored resolutions requesting that the company adopt quantitative goals for reducing GHG emissions from its products and operations, and report to shareholders its plans to achieve these goals. Between 2007 and 2014, these resolutions received affirmative shareholder votes representing between 22% and 31% of Exxon stock.

68. In December 2013, the Christopher Reynolds Foundation, on behalf of a group of shareholders, submitted a proposal for Exxon's 2014 shareholder meeting requesting that Exxon issue a report on "Climate Change Assumptions used for Strategic Planning," which would describe the company's strategic plan in view of climate change.

69. Similarly, in December 2013, Arjuna Capital LLC ("Arjuna"), a sustainable investment management firm, and others submitted a shareholder proposal requesting that Exxon issue a report describing the company's exposure to climate change regulatory risks, including the risk that the value of Exxon's oil and gas reserves and related infrastructure could be reduced

before the end of their expected useful life, and assessing the company's plans for managing those risks.

70. On January 21, 2014, Exxon wrote to the U.S. Securities and Exchange Commission ("SEC") requesting that it be permitted to omit both the Arjuna and Christopher Reynolds Foundation proposals from its proxy statement. The SEC rejected Exxon's request.

71. Consequently, Exxon negotiated with Arjuna and agreed to produce a report on the topic of carbon asset risk in exchange for the withdrawal of the shareholders' proposal. This led Exxon to publish a report entitled *Energy and Carbon – Managing the Risks* ("*Managing the Risks*") on March 31, 2014.

72. Likewise, Exxon negotiated with the Christopher Reynolds Foundation and agreed to produce a report that would address the shareholders' concerns in exchange for the withdrawal of their proposal. As a result, on March 31, 2014, the same day that it published *Managing the Risks*, Exxon produced *Energy and Climate*, a report that analyzed global energy and climate change.

73. In 2016, the New York State Common Retirement Fund and the Church of England, on behalf of a group of shareholders, co-filed a proposal that Exxon publish an annual assessment of the long-term portfolio impacts of global climate change policies, including analysis of the impacts on Exxon's oil and gas reserves and resources under a two degree scenario. Shareholders representing approximately 38% of the company's stock voted in favor of the proposal.

74. Then, in 2017, the New York State Common Retirement Fund and the Church of England submitted an updated version of the 2016 proposal. This time, the resolution received majority support and was adopted: shareholders representing **over 62%** of the company's stock,

including major shareholders such as Vanguard, BlackRock, and State Street, voted in favor of the resolution that Exxon publish an analysis of how global climate change policies, including a two degree scenario, would affect Exxon's long-term value.

75. Exxon's misrepresentations and omissions, set forth below, thus came in the context of intense and growing investor interest in climate change regulatory risk, and negotiations with investors that resulted in the 2014 *Energy and Climate* and *Managing the Risks* reports.

II. EXXON'S FRAUD REGARDING ITS USE OF A PROXY COST IN ITS COST PROJECTIONS

76. Exxon has repeatedly and falsely assured investors that it has taken active and consistent steps to protect the company's value from the risk that climate change regulation poses to its business.

77. The key safeguard that Exxon has frequently touted in its annual *Outlook for Energy* report and in other company publications is that it applies a proxy cost of GHG emissions in its long-term projections for purposes of business planning, investment decision-making, and financial reporting. A proxy cost is a cost that is included in economic projections as a proxy, or stand-in, for the likely effects of expected future events.

78. Exxon represented that it applied escalating proxy costs of GHG emissions in its economic projections as a proxy for increasing regulatory costs resulting from the increasingly stringent climate regulations that it expected. Exxon further represented that it used a specific set of proxy costs across all business units, and that it had been applying these proxy costs since 2007.

79. Exxon's statements were materially false and misleading. Exxon frequently deviated from its public representations by: (i) applying a lower, undisclosed proxy cost based on internal guidance; (ii) applying even lower costs based on existing regulations and holding those costs flat for decades into the future, in lieu of applying an escalating proxy cost; or (iii) applying no cost associated with GHG emissions at all.

80. The application of proxy costs is important to Exxon in light of its substantial GHG emissions. Had Exxon applied its proxy costs in the manner it publicly represented, it would have projected billions of dollars of additional GHG-related costs, and would have projected total GHG-related costs of over $7 billion in 2040 alone.[1] Because it did not incorporate such costs in its investment decision-making, business planning, and financial reporting in the manner it represented, Exxon's financial vulnerability to climate change regulation is significantly greater than it led investors to believe.

A. Exxon's Misrepresentations Regarding Its Use of a Proxy Cost in Investment Decision-Making and Business Planning

1. Exxon's Representations

81. Since at least 2010, in its annual *Outlook for Energy* reports and other company publications, Exxon has set forth its expectation that costs associated with GHG emissions will increase in the coming decades as a result of future government policies. Over time, these representations grew increasingly specific with respect to both the costs the company expected to incur and Exxon's use of a proxy cost to manage the risk associated with more stringent climate change regulation.

[1] This estimate assumes that Exxon's emissions total in 2040 will be equal to its 2015 total (122 million tons of CO_2 equivalent), and will come from the same sources as in 2015.

82. Exxon's Corporate Strategic Planning Department prepares the company's *Outlook for Energy* report annually. These reports are presented to and approved by Exxon's CEO and Management Committee before being released to the public.

83. In its 2010 *Outlook for Energy*, Exxon asserted that, as a result of climate policies it expected governments to adopt, regulatory carbon costs would reach $60 per ton of CO_2 by 2030 in OECD countries.[2] Likewise, in its 2012 *Outlook for Energy*,[3] Exxon projected that the cost of GHG emissions would rise to $60 per ton in 2030 and $80 per ton in 2040 in OECD countries, and that non-OECD countries "also will begin adding CO_2 costs around 2030."

84. Exxon also made specific representations about its application of a proxy cost. In its 2013 *Outlook for Energy* report, Exxon stated that for purposes of its projections through 2040, "ExxonMobil assumes a cost of carbon as a proxy for a wide variety of potential policies that might be adopted by governments over time to help stem GHG emissions." Exxon further stated that it expects these costs to reach about $60 per ton by 2030 and $80 per ton by 2040 in OECD countries. The 2013 *Outlook for Energy* also contained a color-coded map that set forth the company's expectations concerning future carbon costs in different regions around the world. (*See* ¶ 87 below.)

85. On March 31, 2014, Exxon published two reports, *Energy and Climate,* and *Energy and Carbon – Managing the Risks,* in exchange for the withdrawal of shareholder resolutions by the Arjuna Capital and Christopher Reynolds Foundation shareholder groups. The primary drafters of these reports were Exxon's Manager of Environmental Policy and Planning,

[2] "OECD" refers to the Organisation for Economic Co-operation and Development, which includes 36 developed and emerging countries as members.

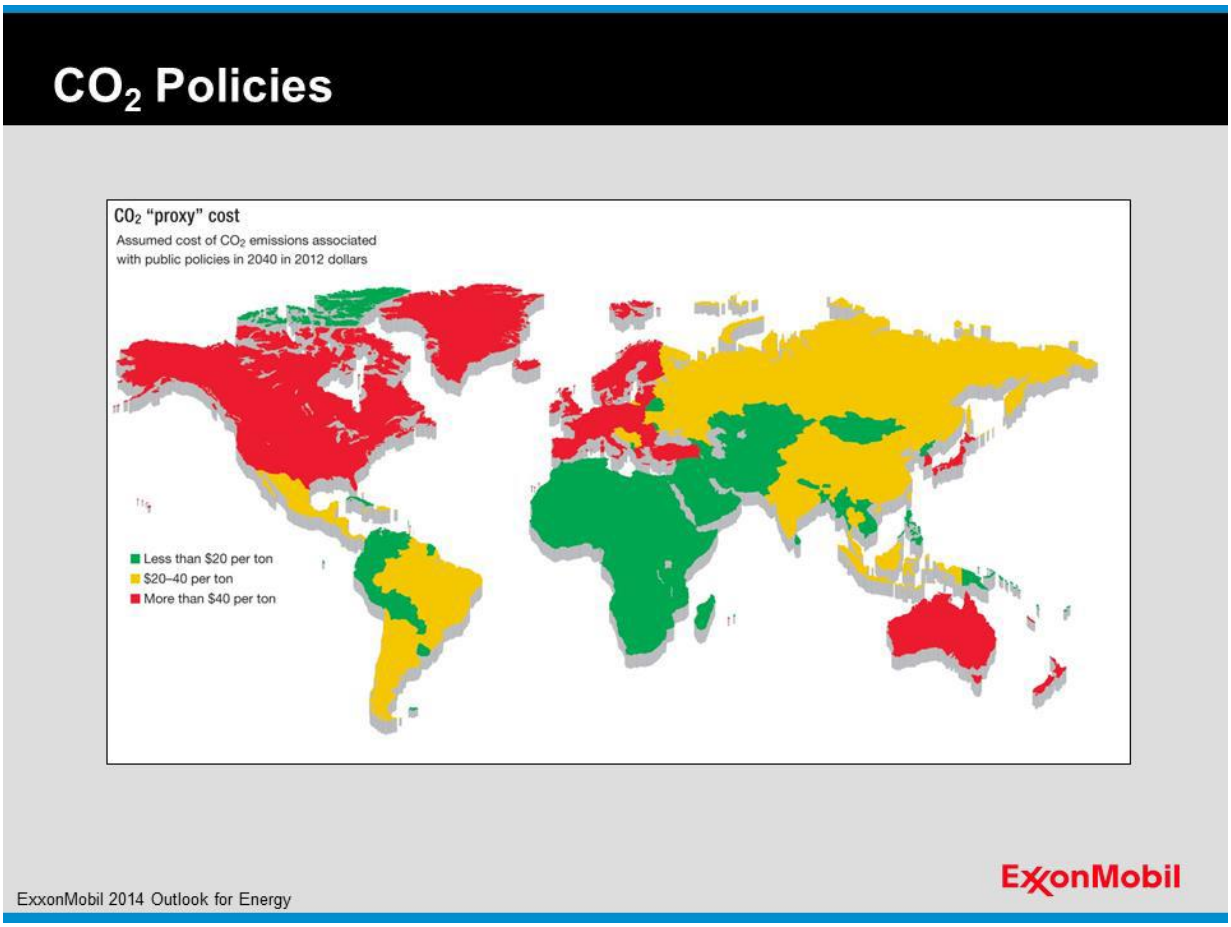
[3] Exxon did not publish a 2011 *Outlook for Energy* report.

and Manager of the Office of the Secretary. The reports were reviewed and edited by Exxon's Vice President of Investor Relations, Vice President of Corporate Strategic Planning, and others, before ultimately being reviewed and approved by Exxon's then-CEO, Rex Tillerson.

86. In *Energy and Climate*, in a section entitled "The Outlook for Energy: A View to 2040," Exxon described its use of a proxy cost as follows:

> [F]or our Outlook we use a cost of carbon as a proxy to model a wide variety of potential policies that might be adopted by governments to help stem GHG emissions. For example, in the OECD nations, we apply a proxy cost that is about $80 per ton in 2040. In the developing world, we apply a range of proxy costs with the more wealthy countries, like China and Mexico, reaching about $30/ton in 2040
>
> . . . .
>
> **This GHG proxy cost is integral to ExxonMobil's planning**, and we believe the policies it reflects will increase the pace of efficiency gains and the adoption by society of lower-carbon technologies through the Outlook period . . . . (emphasis added)

87. A map in the middle of that passage divided the world into three categories for purposes of proxy cost application, and set forth Exxon's expectations regarding carbon costs in each country in 2040: "More than $40 per ton" (most of the OECD countries, including Canada); "$20-40 per ton" (mostly non-OECD countries, including China, Indonesia, and Russia, among others); and "Less than $20 per ton" (the remaining non-OECD countries). The color-coded map is reproduced below:



88. The *Energy and Climate* report also stated that Exxon expected "OECD nations to continue to lead the way" in adopting regulatory policies to limit GHG emissions, "with developing nations gradually following, led by countries like China and Mexico."

89. Later in the *Energy and Climate* report, under the subheading "Evaluating climate risk in our planning," Exxon emphasized the consistency with which it applies a proxy cost, stating:

> The company employs a **robust process** for evaluating investment opportunities and managing our portfolio of operating assets. ExxonMobil requires that **all business units** use a **consistent corporate planning basis, including the proxy cost of carbon** discussed above, in evaluating capital expenditures and developing business plans. (emphasis added)

90. Exxon published the *Managing the Risks* report on its website the same day that it published *Energy and Climate*. Exxon explained that the purpose of *Managing the Risks* was to "address important questions raised recently by several stakeholder organizations on the topics of global energy demand and supply, climate change policy, and carbon asset risk." These topics are of particular importance because, as Exxon stated in *Managing the Risks*, "[g]overnments' constraints on use of carbon-based energy sources and limits on greenhouse gas emissions are expected to increase throughout the Outlook period." The "Outlook period" refers to the future years covered by Exxon's projections.

91. Exxon represented in *Managing the Risks* that it "**rigorously** consider[s] the risk of climate change in [its] planning bases and investments" by "requir[ing] that **all significant proposed projects** include a cost of carbon – which reflects [its] best assessment of costs associated with potential GHG regulations over the Outlook period – when being evaluated for investment." (Emphasis added.)

92. Under the heading "Planning Bases and Investments," Exxon further stated in *Managing the Risks*:

> We also address the potential for future climate-related controls, including the potential for restriction on emissions, through the use of a proxy cost of carbon. This proxy cost of carbon is embedded in our current Outlook for Energy, and has been a feature of the report for several years. The proxy cost seeks to reflect all types of actions and policies that governments may take over the Outlook period relating to the exploration, development, production, transportation or use of carbon-based fuels. Our proxy cost, which in some areas may approach $80/ton over the Outlook period, is not a suggestion that governments should apply specific taxes. . . .
>
> It is simply our effort to quantify what we believe government policies over the Outlook period could cost to our investment opportunities. Perhaps most importantly, we require that **all our business segments** include, where appropriate, GHG costs in their economics when seeking funding for capital investments. **We require that investment proposals reflect the climate-related**

> **policy decisions we anticipate governments making during the Outlook period and therefore incorporate them as a factor in our specific investment decisions**. (emphasis added)

This statement followed the same color-coded map contained in the *Energy and Climate* report described above.

93. Based on this analysis, Exxon assured investors that it was "confident that none of [its] hydrocarbon reserves are now or will become 'stranded,'" and that "the company does not believe current investments in new reserves are exposed to the risk of stranded assets."

94. In these and other public statements, Exxon described its proxy cost as a unitary concept that applies across its business units and functions. While Exxon noted that it applies different proxy cost values in different geographic regions, the company did not disclose that it used different proxy costs for different business purposes.

95. Following the release of these two reports, Exxon continued to represent to investors that it applied a proxy cost to its projected GHG emissions in business planning and investment decision-making, that its proxy cost reached $80 per ton in OECD countries by 2040, and that it also applied proxy costs in non-OECD countries.

96. For example, in May 2014, Exxon issued its *2013 Corporate Citizenship Report*, which stated:

> To help model the potential impacts of a broad mosaic of future GHG policies, we use a simple cost of carbon as a proxy mechanism. For example, in most OECD nations, we assume an implied cost of CO_2 emissions that will reach about $80 per metric ton in 2040. OECD nations are likely to continue to lead the way in adopting these policies, with developing nations gradually following led by China.

97. In November 2014, Exxon published an article on its website stating that its application of a proxy cost of GHG emissions informed the company's natural gas investments –

such as its $44 billion acquisition of XTO in 2010, which made Exxon the largest producer of natural gas in the United States:

> We fully expect governments to take various actions to constrain carbon emissions in coming years. Our increased investment in cleaner-burning natural gas has been guided in part by this assumption. ExxonMobil's Outlook for Energy assumes a proxy cost of carbon of $80 per ton, significantly above the current average worldwide. Our proxy cost of carbon represents the cumulative impact of government actions, regardless of the precise form these actions eventually take.

98. Exxon also made clear to investors that it did not expect governments to take a "business as usual" approach to climate change, and that its proxy cost was intended to reflect increasingly stringent policies over the coming decades. For example, in its CDP response for calendar year 2014, when asked how the company "uses an internal price of carbon," Exxon stated:

> We address the potential for future climate change policy, including the potential for restrictions on emissions, by estimating a proxy cost of carbon. This cost, which in some geographies may approach $80 per ton by 2040, has been included in our Outlook for several years. This approach seeks to reflect potential policies governments may employ related to the exploration, development, production, transportation or use of carbon-based fuels. We believe our view on the potential for future policy action is realistic and, **by no means represents a "business as usual" case.** We require **all of our business lines** to include, where appropriate, an estimate of GHG-related emissions costs in their economics when seeking funding for capital investments. (emphasis added)

99. Exxon has emphasized that it has applied its proxy cost for many years. In a December 2, 2015 publication on its corporate website entitled *ExxonMobil and the carbon tax*, Exxon described its briefings for investors and other interested parties as follows:

> One **key point** we make in many of these briefings is that ExxonMobil has included a proxy price on carbon in our business planning **since 2007**.

> This enables us to analyze the impact of a price on carbon on various investment opportunities. This proxy cost, which in some regions may approach $80 per ton, seeks to reflect all types of actions and policies that governments may take. (emphasis added)

100. Exxon has also emphasized that its "GHG proxy cost" is "integral" to the company's planning. In a statement on its website, published in 2016 or earlier, entitled *Meeting Global Needs – Managing Climate Change Business Risks*, Exxon represented:

> We use a simple cost of carbon as a proxy mechanism to help model the potential impacts of a broad mosaic of future GHG policies. For example, in most OECD nations, we assume an implied cost of CO2 emissions that will reach about $80 per metric ton in 2040. Developing nations will have a wide range of policy costs with the wealthiest ones reaching about $35 per metric ton.
>
> **This GHG proxy cost is integral to ExxonMobil's planning** . . . . (emphasis added)

101. In its 2016 proxy statement to shareholders, Exxon again emphasized the representations in the *Managing the Risks* report:

> The Company addresses the potential for future climate-related policy, including the potential for restriction on emissions, through the use of a proxy cost of carbon. The proxy cost seeks to reasonably reflect the types of actions and policies that governments may take over the outlook period relating to the exploration, development, production, transportation or use of carbon-based fuels. This proxy cost of carbon is embedded in our Outlook for Energy, and has been a feature of the report **since 2007**. **All business segments** are required to include, where appropriate, an estimate of the costs associated with greenhouse gas emissions in their economics when seeking funding for capital investments. (emphasis added)

102. Exxon explained to investors that the company applies a proxy cost of GHG emissions as an added cost in all of its economic projections. At Exxon's 2016 shareholder meeting, then-CEO Tillerson stated:

> We have, unlike many of our competitors, we have for many years included a price of carbon in our outlook. **And that price of carbon gets put into all of our economic models when we make investment decisions as well. It's a proxy.** We don't know how

> else to model what future policy impacts might be. But whatever policies are, ultimately they come back to either your revenues or your cost. So **we choose to put it in as a cost**. So we have accommodated that uncertainty in the future, and **everything gets tested against it.** (emphasis added)

103. Exxon also frequently referred investors to its *Energy and Climate* and *Managing the Risks* reports. Indeed, in March 2015, Exxon's Manager of Investor Relations noted that the company "continue[s] getting mileage from those white papers" in its outreach to the investors. More recently, in its 2017 proxy statement opposing a shareholder proposal that sought to address "climate change related risks of stranded carbon assets," Exxon referred shareholders to *Managing the Risks*, stating that the report "describes how the Company integrates consideration of climate change risks into planning processes and investment evaluation."

104. Exxon has also relied on its application of proxy costs in attempting to avoid additional disclosure to investors. For example, in a 2016 letter to the SEC opposing a shareholder proposal for additional company disclosures regarding climate change regulatory risk, Exxon stated that it "uses the proxy cost of carbon in relevant long-term investment decisions to ensure the resiliency of its investments."

2. Exxon's Proxy Cost Representations Were Important to Investors

105. Exxon's representations concerning its purported use of a proxy cost of GHG emissions were important, and remain important, to the company's investors.

106. As early as 2009, investors specifically asked Exxon how it incorporated a carbon price into its investment decisions. For example, at a meeting with institutional investors in September 2009, in response to questions from Lazard Asset Management concerning GHG regulation, then-CEO Tillerson assured investors that Exxon built a cost of carbon into its

investments and escalated that cost on a forward basis, and that all of Exxon's project economics were burdened with that cost.

107. In March 2014, the Credit Suisse equity research team circulated an article from Bloomberg which noted that, "[o]f 30 U.S. companies that use a shadow carbon price, Exxon's is among the most aggressive." The article continued by stating: "Exxon's shadow price of $60 per ton of CO2 pollution is more than seven times the current cost of carbon permits in the EU cap-and-trade system . . . . While investors might fault Exxon for not doing enough to prepare for the future, it's hard to argue that it's not taking the climate threat seriously, at least on paper."

108. In 2015 and 2016, Exxon's Environmental Policy and Planning Manager and Assistant Treasurer held a series of meetings with representatives of Exxon's largest institutional investors concerning "GHG Stabilization Pathways and Carbon Asset Risk" and "Managing Climate Risks & Greenhouse Gas Stabilization Challenges." These meetings were designed to reassure investors that Exxon was managing the risk of climate change, including through the application of a proxy cost. As the notes from one of those meetings show, a J.P. Morgan employee was told by Exxon in December 2015: "Carbon price = cost of regulation; C [carbon] price is 'conservative' in sense of stranded assets; XOM [Exxon] assumes higher C cost."

109. Exxon's representations influenced investors' views of the climate-related risks to which the company was exposed. In a September 2015 internal presentation that assessed the climate risks faced by major energy companies, Bank of America Merrill Lynch, a major Exxon shareholder, noted:

> XOM does . . . factor in a proxy cost of carbon in planning
>
> XOM's proxy cost in the event a carbon based tax is implemented approaches $80/ton over the outlook period . . .

> This proxy cost is used to quantify what XOM believes government policies could look like through 2040 and used in decision making for major projects
>
> Evaluating climate risk in planning . . . All business units plan around the proxy cost of carbon[.]

The presentation indicates that the sources for these statements were "ExxonMobil's Energy and Climate Report, ExxonMobil's Energy and Carbon: Managing the Risks Report and ExxonMobil's 2015 Outlook for Energy Presentation."

110. BlackRock, Exxon's second-largest shareholder and the world's largest asset manager, also sought information from Exxon about how it manages climate change-related risk. In an October 2015 meeting, Exxon representatives told BlackRock that Exxon "[i]nclude[s] a proxy cost of carbon for all their investment decisions (varies by region)."

111. Likewise, in December 2015, Exxon employees told fund managers for the Church of England, a lead proponent of several shareholder proposals regarding climate change in recent years, that the "[c]ost of carbon is included in all investment decisions."

112. In 2016, Vanguard, the company's largest shareholder, conducted an internal analysis of Exxon's vulnerability to adverse economic consequences associated with climate change risk, including "cost of climate change compliance" and "decline in company stock value." Vanguard questioned how Exxon's "capital processes and business strategies incorporate analyses of the short and long-term financial risks of a lower carbon economy." In its analysis, Vanguard quoted Exxon's *Managing the Risks* report and noted that Exxon had represented that it "has used a proxy cost of carbon since 2007 which addresses 'the potential for future climate-related controls, including the potential for restriction on emissions' and is Exxon's 'effort to quantify what [they] believe government policies over the Outlook period could cost to [their] investment opportunities.'" Vanguard also identified a risk that Exxon's

future costs associated with climate change regulations may include fines for non-compliance, but rated this risk as "low" based on its understanding, derived from Exxon's public statements, that Exxon "anticipates that policies will add rising costs (est. $80/ton by 2040)."

113. In February 2016, Exxon's Investor Relations and Environmental Planning and Policy staff told a group of investors – including the New York State Comptroller, the Church of England, and the Vermont Pension Investment Committee – that Exxon "incorporate[s] a proxy cost of carbon," "use[s] it as a means to test resiliency of our investments," and "assess[es] all of [its] investments on proxy cost."

114. On May 26, 2016, Wells Fargo equity research analysts hosted a group of investors at Exxon's corporate headquarters to discuss "climate risks including stranded assets." According to the equity research report in which Wells Fargo summarized the meeting, Exxon stated that it "places a proxy cost of carbon on all of its future developments. Depending on the project and its location, the proxy cost of carbon ranges from $20 to $80 per ton by 2040." Wells Fargo concluded that "[t]his approach reduces the risks associated with future CO2 emissions and incentivizes [Exxon] to reduce overall emissions of all future projects. Thus we believe ExxonMobil is ahead of the curve on pricing in climate risks."

115. Later, in August 2017, Wells Fargo released an equity research report which concluded that Exxon "remains the leading energy company in our view," and expressed Wells Fargo's understanding that:

> All XOM [Exxon] projects are assessed an internal carbon tax (on a per ton basis) to take into account carbon intensity. This is very important for long-lived projects to ensure full-cycle returns are fairly evaluated on an environmental basis as well as financial and operational.

116. As late as 2017, Exxon was continuing to assert in meetings with investors such as State Street that it had been applying a proxy cost of GHG emissions "since 2007." Investors used that information to assess Exxon's exposure to climate change regulatory risks.

117. Additionally, investors and underwriters rely on the credit ratings provided by rating agencies in making investment and underwriting decisions, and Exxon knew that rating agencies had concerns about the impact of GHG regulation on the company's financial health. Exxon met with representatives of Moody's Investor Service and Standard & Poor's Financial Services LLC in New York City in October 2016, after the ratings agencies had downgraded Exxon's credit rating. Exxon's meeting notes reflect that Moody's "look[s] to understand the potential impact of carbon regulation on the company's ability to remain competitive" and that "Moody's assessment is that carbon regulation has the potential to materially impact [Exxon's] credit quality in the medium to long-term (5+ years)."

3. Exxon's Representations Were Inconsistent with Its Actual Practices

118. Exxon routinely did not apply the proxy costs that the company represented it was using, especially when doing so would have had a significant impact on the company's business decisions.

119. This did not occur by accident. Exxon management, including then-CEO Tillerson, knew of and approved of these deviations.

120. First, Exxon's undisclosed internal guidance authorized applying proxy cost figures that were much lower than those set out in the company's public representations. Second, in projects in developing, non-OECD countries, Exxon did not apply **any** proxy costs to its projected GHG emissions in its base economic projections prior to 2016, contrary to its representations. Third, in significant parts of its business, such as the Alberta oil sands, projects

in the United States, liquefied natural gas ("LNG") projects, refinery and chemical projects, and North American natural gas assets, Exxon applied much lower proxy costs than it represented or no proxy costs at all to its projected GHG emissions. In these parts of its business, Exxon often applied a much lower price per ton to a small percentage of its GHG emissions, based on then-current regulations, and held those lower costs flat far into the future, rather than applying the escalating proxy costs that it represented to investors. These practices rendered Exxon's proxy cost-related representations materially false and misleading.

a) Exxon's Internal Proxy Costs Deviated Significantly from Its Publicly Represented Proxy Costs

121. For years, to the extent that Exxon applied any proxy cost to its projected GHG emissions, it applied significantly lower proxy costs than those represented to investors.

122. In particular, Exxon used an undisclosed set of proxy costs that was set out in its internal Corporate Plan Dataguides and Appendices ("Corporate Plan"). The Corporate Plan is an internal Exxon document, issued annually, which sets out assumptions for the company's business units to apply in making economic projections. Exxon's management, accountants, and attorneys all recognized that the Corporate Plan contained the company's internal proxy cost assumptions.

123. The proxy cost figures in Exxon's Corporate Plan were inconsistent with, and significantly lower than, the company's publicly represented proxy costs until June 2014 for OECD countries, and until June 2016 for non-OECD countries. For these periods, Exxon's investment decisions and business planning were based on significantly lower proxy costs than those the company represented to investors it used. Exxon's GHG Managers internally warned that using these lower figures made Exxon more susceptible to climate change regulatory risk,

and indeed, one of those GHG Managers effectively admitted in an internal presentation that the company's proxy cost representations were misleading.

(i) OECD Countries

124. In 2010 and 2011, Exxon publicly represented that its proxy cost for projects in OECD countries was $60 per ton of emissions in 2030, while the undisclosed Corporate Plan proxy cost reached only $40 per ton in 2030. In 2012, 2013, and 2014, Exxon publicly represented that its proxy cost was $60 per ton in 2030, as before, and that it would increase to $80 per ton in 2040. Internally, until June 2014, Exxon's undisclosed Corporate Plan proxy cost still reached only $40 per ton in 2030 for OECD countries, and did not extend to 2040.

125. These deviations between Exxon's public representations and its internal Corporate Plan had a material impact on Exxon's investment decisions and business planning. For example, according to an internal analysis Exxon performed in 2007, a $20 cost per ton of CO_2 would have had a $1.8 billion impact in annual operating expenses for the company's upstream projects in a single year (2020).

126. Exxon's decision to apply lower proxy costs pursuant to its internal Corporate Plan affected investment decisions at major assets. For example, with respect to a 2013 investment decision at the Aspen oil sands asset in Alberta, a planning supervisor noted that the company applied a proxy cost that "flatlined at $40/t GHG (2013$) long term," which was significantly lower than the publicly represented proxy cost that reached $60 per ton in 2030 and $80 per ton in 2040.

127. Likewise, at Exxon's largest European refinery in Antwerp, Belgium, Exxon did not apply the publicly represented proxy costs. Instead, Exxon applied the lower internal proxy costs from its internal Corporate Plan, and furthermore applied that lower proxy cost to only a

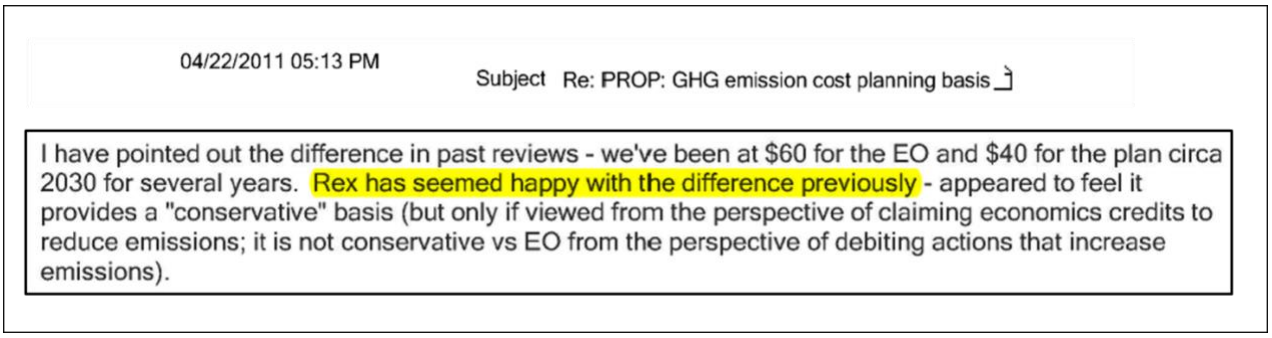
fraction of project-related GHG emissions. Specifically, a cash flow model relating to a 2014 investment project at that refinery applied an internal proxy cost that reached only $40 per ton in 2030 and stayed flat thereafter, as opposed to the publicly represented proxy costs, which escalated to $60 per ton in 2030 and $80 per ton in 2040. The model also applied those lower costs to only 35.6% of project-related GHG emissions, meaning the effective unit cost was $14.24 per ton both in 2030 (instead of $60 per ton) and in 2040 (instead of $80 per ton).

128. Exxon's management, including then-CEO Tillerson and other members of the Management Committee,[4] knew and approved of the significant deviation between the publicly disclosed proxy cost and the lower proxy costs set forth in the undisclosed Corporate Plan. In response to a question from CDP asking Exxon to identify "the highest level of direct responsibility for climate change within [the] organization," the company explained that "the Chairman of the Board and the Chief Executive Officer, the President and the other members of the Management Committee are actively engaged in discussion relating to greenhouse gas emissions and the risk of climate change on an ongoing basis." Indeed, the Management Committee was kept apprised of climate change-related issues generally and received in-depth briefings on the subject. In particular, Management Committee members reviewed and approved the *Outlook for Energy* and key elements of the Corporate Plan each year. Further, Mr. Tillerson reviewed and approved the *Managing the Risks* and *Energy and Climate* reports.

[4] The Management Committee consists of Exxon's CEO and Senior Vice Presidents and is responsible for executive decision-making, long-term strategy, endorsements of the Corporate Plan and *Outlook for Energy*, and major investment decisions. The members of the Management Committee during the time period 2010 to 2016 included: Rex Tillerson (Chairman and CEO), Mark Albers (Senior Vice President), Andy Swiger (Senior Vice President), Don Humphreys (Senior Vice President and Treasurer), Mike Dolan (Senior Vice President), Darren Woods (Senior Vice President), and Jack Williams (Senior Vice President).

129. Exxon's management approved of this deviation even though it knew that the lower internal values were less protective against climate change regulatory risk than the proxy cost described publicly. Further, Exxon knew that the higher proxy costs described to investors were a more realistic projection of future costs associated with GHG emissions than the lower costs it actually applied in its cost projections. Exxon's then-GHG Manager wrote in an email to colleagues on April 30, 2010, that he "[r]ecognize[d]" that the "2030 cost of $40 [per ton]" in the Corporate Plan was a "low" estimate of costs likely to be incurred, and that the *Outlook for Energy*'s "assumption of $60 [per ton] is likely more realistic."

130. Exxon management discussed reconciling the internal Corporate Plan proxy costs with the publicly disclosed proxy costs years before such alignment took place. On April 22, 2011, Exxon's then-GHG Manager sent an email to colleagues raising the question of "whether to harmonize" the lower, internal proxy costs with the higher, publicly disclosed proxy costs. He argued that doing so would "provide more clarity and alignment throughout [the] organization" and would be "rational." However, the manager responsible for securing executive approval of the internal proxy costs responded that "Rex [Tillerson] has seemed happy with the difference previously," as reflected in the email excerpted below (emphasis added):



04/22/2011 05:13 PM

Subject Re: PROP: GHG emission cost planning basis

I have pointed out the difference in past reviews - we've been at $60 for the EO and $40 for the plan circa 2030 for several years. Rex has seemed happy with the difference previously - appeared to feel it provides a "conservative" basis (but only if viewed from the perspective of claiming economics credits to reduce emissions; it is not conservative vs EO from the perspective of debiting actions that increase emissions).

As stated in the email, Exxon's deviation from its representations was "not conservative" as to projects that increase GHG emissions. Such projects comprise the vast majority of Exxon's investments. Nonetheless, Exxon management rejected the proposal to increase the company's

internal proxy costs to conform to its public representations. Accordingly, the deviation between Exxon's internal and external proxy cost figures continued for over three more years.

131. In May 2014, a new Exxon GHG Manager effectively admitted that the company's *Energy and Climate* and *Managing the Risks* reports contained misleading representations concerning proxy costs, and recommended that the internal figures be increased to match the figures that Exxon had publicly represented. In the speaker notes of a May 2014 presentation to the Management Committee, including Mr. Tillerson, Exxon's new GHG Manager recommended aligning the "non-conservative" (*i.e.*, risky) figures in the Corporate Plan with those in the *Outlook for Energy* reports on the ground that Exxon's March 2014 reports to shareholders had "implied that we use the [Outlook] basis for proxy cost of carbon when evaluating investments."

132. In June 2014, in accordance with its GHG Manager's recommendation, Exxon increased the proxy cost values in its Corporate Plan to conform to its publicly represented proxy cost – but for OECD countries only. The new 2014 Corporate Plan stated that Exxon was changing its internal OECD proxy cost figures to be "aligned with long term Energy Outlook basis," and noted that this was "a change from the 2013 Corporate Plan."

133. Exxon's current GHG Manager testified that he did not know how the lower, internal proxy cost figures utilized prior to June 2014 were derived, even though he and his colleagues "have spent a fair amount of time trying to understand that." He further testified that when he became GHG Manager in 2014, he asked the prior GHG Manager why these figures differed, and his predecessor admitted that he "didn't really know." Likewise, Exxon's current GHG Manager testified that he discussed this issue with the Manager of Environmental Policy and Planning, who also did not know why these figures differed.

134. Exxon's planners and managers understood the importance of the June 2014 change in internal guidance. In an October 2014 email, a development planning manager described this alignment as a "huge change," and stated that he suspected the change was made "to address GHG risks in response to shareholder increasing queries and concern." In response, a development planning supervisor noted that this change would have a "material impact" on Exxon's oil sands assets. The next month, the same supervisor circulated an analysis to his colleagues showing that the new GHG guidance had a "very material" impact on Exxon's oil sands opportunities, including its projects at Aspen, Clarke Creek, Clyden, Corner, and Grand Rapids.

135. Despite the significance of this June 2014 proxy cost alignment, Exxon never disclosed it to the company's investors, nor did the company disclose that its internal guidance had significantly deviated from the company's publicly represented proxy costs for years.

(ii) Non-OECD Countries

136. Contrary to Exxon's representations that it applied a proxy cost to investment decisions and business planning around the world, including in non-OECD countries, Exxon's internal Corporate Plan directed employees not to apply proxy costs to its projected GHG emissions in base economic models for projects in non-OECD countries until June 2016.

137. Instead, the Corporate Plan instructed employees to include proxy costs in non-OECD countries only in certain sensitivity analyses. Unlike base economic models, which reflect the company's actual forecasts, sensitivity analyses test a range of hypotheticals that are considered less likely to occur, and thus have far less impact on the company's decision-making than base economic models.

138. Exxon did not perform even these sensitivity analyses in non-OECD countries with any consistency. Indeed, Exxon's pre-2016 Corporate Plans did not contain proxy cost figures for use in sensitivity analyses in non-OECD countries. Moreover, a development planning supervisor testified that she could not recall ever seeing a sensitivity run for such costs, whether in non-OECD countries or otherwise.

139. Exxon did not revise its internal Corporate Plan to include proxy cost figures for non-OECD countries until June 2016, seven months after the commencement of the State's investigation.

140. Contemporaneous documents described the 2016 revision as a "major change" in procedures at the company. The revision resulted in a flurry of activity throughout the company to calculate, for the first time, projected GHG emissions associated with specific assets in non-OECD countries.

141. Only after meeting a "tight deadline on implementation of the new guidelines" for the July 2016 planning and budgeting submissions did employees begin to consider "how to incorporate" the new proxy costs for non-OECD countries "into [Exxon's] modeling on a more permanent basis," including considering what impact the new guidance might have on the company's investment decisions and reserves calculations.

142. Before mid-2016, Exxon had not even projected future GHG emissions for many of its non-OECD projects – let alone applied proxy costs to such emissions – even though approximately 30% of Exxon's GHG emissions in 2015 were from non-OECD countries.

143. Exxon deviated from its public representations by not applying proxy costs to its GHG emissions for major investments in non-OECD countries. For example, despite Exxon's public representations in 2013 and 2014 in the color-coded map it included in multiple reports

(*see* above ¶ 87) that it applied a proxy cost in Guyana of $20-$40 per ton in 2040, Exxon did not incorporate proxy costs into its economic analysis for a multibillion dollar project in Guyana until after June 2016.

144. Likewise, Exxon did not incorporate its publicly represented proxy costs into cost projections for its multibillion dollar projects in Malaysia, Indonesia, and Singapore before July 2016. While Exxon publicly represented in 2013 and 2014 that it applied proxy costs of $20-$40 per ton for the year 2040 in each of these three countries, email correspondence shows that planners were not instructed to do so until 2016. In July 2016, a planning advisor in the Asia Pacific region, which includes Malaysia, Indonesia and Singapore, instructed planners to apply proxy costs for the first time, explaining that "what previously was just impacting Australia in the past, now impacts ALL countries" in the region.

145. Exxon likewise did not incorporate its publicly represented proxy costs into its cost projections for multibillion dollar projects at its Sakhalin oil and gas asset in Russia in 2010 and 2014, or for a funding decision of several hundred million dollars at the Tengiz oil field in Kazakhstan in January 2016.

146. By not following its public representations regarding the application of proxy costs to its projected GHG emissions in non-OECD countries, Exxon substantially understated its projected costs when making investment decisions and conducting business planning in those countries.

b) Even After Conforming Internal Proxy Cost Guidance to Its Public Representations, Exxon Continued to Deviate from Its Proxy Cost Representations

147. After Exxon increased its internal proxy cost guidance to conform to its public representations, the company's planners realized that the application of the higher publicly

disclosed proxy costs would result in "massive GHG costs," "large write-downs," and shorter asset lives.

148. Rather than accept the consequences of incorporating the risks of climate change regulation as it had represented to investors by applying the publicly represented proxy cost, Exxon management decided to apply an "alternate methodology." This "alternate methodology" was not disclosed to investors, and consisted of applying a lower proxy cost than publicly represented, or no proxy cost at all, to Exxon's projected GHG emissions in important areas of its business, including the Alberta oil sands, assets in the United States, LNG assets, refineries, and North American natural gas assets.

149. For major projects, rather than applying a proxy cost, Exxon assumed, contrary to its representations, that existing climate regulation would remain in place, unchanged, indefinitely into the future. In these cases, Exxon applied a much lower cost per ton to a small percentage of GHG emissions based on existing regulation, held flat indefinitely. This conduct was directly contrary to Exxon's public representations that it applied escalating proxy costs as a stand-in for the effects of expected future GHG regulation. Exxon's conduct thus rendered those representations materially false and misleading.

150. Exxon's application of lower proxy costs than it publicly represented or no proxy costs at all, even after the company revised its internal guidance, was most frequent in parts of the business with high GHG emissions, where applying the publicly represented proxy cost would have had a particularly significant impact on the company's investment decisions and business planning.

151. In 2011, Exxon's Vice President of Environmental Policy and Planning stated in an internal presentation that the application of a "high cost on GHG emissions" would be a

"major concern" for many of the company's "energy intensive operations," such as its "refining and chemical businesses" and "LNG and heavy oil production,"[5] and that "greenhouse gas intensive energy sources such as oil sands" would also be "vulnerable." Exxon failed to apply its publicly represented proxy cost to its projected GHG emissions most frequently to GHG-intensive projects in these areas.

(i) Alberta Oil Sands Assets and Investments

152. While Exxon repeatedly told investors that it was applying a proxy cost rising to $80 per ton of GHG emissions in OECD countries such as Canada by 2040, Exxon management instructed employees not to apply this publicly represented proxy cost to its projected GHG emissions for business planning and investment decision-making purposes at its oil sands projects in Alberta.

153. Exxon instead applied what a planning supervisor called an "alternate methodology," which deviated from the company's representations to investors in three ways. First, Exxon did not apply a proxy cost to its projected GHG emissions at all, but instead applied a much lower cost that was based on existing regulations. Second, based on existing regulations, Exxon applied those lower costs to only a small percentage of GHG emissions. Third, Exxon held flat those lower costs, and the small percentage of emissions to which those costs were applied, indefinitely into the future, rather than applying costs that escalated over time.

154. This "alternate methodology" of applying existing legislated costs to a small percentage of project emissions, and holding those costs flat indefinitely into the future, was fundamentally inconsistent with Exxon's repeated representations that the company was

[5] Heavy oil is crude oil that is characterized by high density and viscosity. Oil sands are categorized as heavy oil.

projecting increasing costs associated with GHG emissions due to increasingly stringent regulation.

155. As a result of these practices, Exxon effectively applied costs for its GHG emissions in Alberta that were less than $5 per ton, held flat into the future for decades. These costs were far below the publicly represented proxy cost of $80 per ton for Canada – including Alberta – in 2040.

156. This deviation from Exxon's public representations was willful, and it was directed by Exxon management. After Exxon increased the proxy costs in the internal Corporate Plan to match the publicly represented proxy costs for OECD countries such as Canada, planners reported that applying the publicly represented proxy costs would result in "massive GHG costs," "large write-downs," and other significant impacts on the company's bottom line. Exxon management then instructed the planners to disregard those publicly represented proxy costs. Instead, Exxon management directed planners to apply an "alternate methodology" that did not include the publicly represented proxy costs.

157. Even when Exxon did apply some proxy costs rather than existing legislated costs to its Alberta oil sands projects, it frequently did so on the basis of the outdated pre-2014 Corporate Plan, which was not aligned with the company's public representations. As a result, for these projects, Exxon applied proxy costs that were significantly lower than those that Exxon represented to investors.

158. Cash flow models for fourteen of Exxon's Alberta oil sands projects show that the company's deviations from its publicly represented proxy costs would have substantially impacted profits. By applying Alberta's legislated cost, held flat into the future, rather than the escalating proxy cost, or by applying proxy cost figures that were significantly lower than those

set out in Exxon's public representations, Exxon underestimated total projected GHG-related costs at those fourteen projects by approximately $30 billion CAD (more than $25 billion USD), and overestimated cumulative undiscounted cash flows by similar figures.[6] This overestimate represents over 7% of the aggregate projected discounted cash flow returns over all of these projects, with an average (non-weighted) impact across projects of approximately 0.9 percentage points of discounted cash flow return – and with a significantly higher impact on certain projects. Exxon's planners consider even a 0.5 percentage point impact to the discounted cash flow of a project's economics to be material in evaluating the company's investment opportunities.

159. For Exxon's largest Canadian oil sands investment – Kearl – in which the company had invested more than $33 billion in capital expenditures by 2015, the decision to apply an "alternate methodology" instead of the publicly represented proxy costs reduced cost projections associated with GHG emissions by approximately 94%.

160. Exxon's 2015 economic model for Kearl confirms that Exxon did not apply its publicly represented proxy cost. Instead, for investment decision-making and business planning purposes, Exxon (i) applied existing legislated costs of $24 USD per ton, rather than the publicly represented $80 per ton in 2040; (ii) held that cost flat through the end of the asset's projected life in 2065, rather than applying costs that rise over time; (iii) applied that cost to only 15% to 20% of Exxon's emissions, pursuant to existing legislation that only taxed the portion of emissions that exceeded certain emissions-intensity targets; and (iv) held that percentage flat through the end of the asset's projected life. This resulted in an effective cost of less than $5

[6] These estimates are based on economic assumptions as they appear in Exxon's cash flow models.

USD per ton of GHG emissions in 2040 – approximately 94% less than the $80 per ton figure that Exxon represented for that year.

161. By applying existing legislated costs instead of the publicly represented proxy cost to Kearl, Exxon reduced the projected undiscounted costs of GHG emissions for that asset by approximately 94%, or $14 billion CAD ($11 billion USD). Depending on Exxon's assumption about the future price of oil, this additional cost had the potential to change the cash flow projections for Kearl as a whole from positive to negative, with concomitant reductions in associated reserves.

162. Exxon's use of this "alternate methodology" is also described in a planning supervisor's July 4, 2016 email concerning Kearl:

> Last year, the [Corporate Plan] guidance resulted in **massive GHG costs** in the out years so **alternate methodology** was applied. I suspect something similar will be required this year. (emphasis added)

163. This decision was directed by Exxon's management, and it expressly contradicted the company's public representations and internal guidance, which had only recently been aligned with those representations. On July 14, 2016, another planner wrote:

> Currently the [Kearl] model is still only following 'legislated' GHG guidance (Alberta) as part of a **management decision** last year . . . **versus the global strat[egic] planning guidance**." (emphasis added)

164. Exxon's application of existing legislated costs cannot be squared with its numerous public statements that it was projecting that governments would impose *increasing* costs on GHG emissions over time, with "OECD nations [such as Canada] to continue to lead the way."

165. Moreover, in a 2018 cash flow analysis regarding the Aspen oil sands project in Alberta, Exxon applied proxy costs to only a limited percentage of emissions based on existing

legislation, resulting in an understatement in projected costs of approximately $3.8 billion USD. For many of the years in this cash flow projection, Exxon multiplied its proxy cost figures by **negative** percentages, effectively turning its purported proxy cost into a proxy **credit**. Exxon never informed investors that it was accounting for climate change regulatory risk by assuming that this risk would actually turn into a reward.

166. Exxon also did not apply its publicly represented proxy costs to its projected GHG emissions for assets in which it had an interest as part of a joint venture. Notably, at the multibillion dollar Syncrude oil sands asset in Alberta, in which Imperial has a 25% interest, Exxon did not incorporate proxy costs into its cost projections when deciding to invest nearly $1 billion in 2011 and 2012. Exxon's failure to inform investors that its proxy cost representations did not apply to massive and GHG-intensive joint ventures like Syncrude rendered those representations misleading.

167. Exxon's misrepresentations concerning its application of proxy costs at its Alberta oil sands assets are highly material. The Alberta oil sands assets are important to Exxon's business overall, and constituted nearly a quarter of Exxon's resource base (*i.e.*, the quantity of oil and gas under Exxon's control that the company expects to develop in the future) as of February 2016.

168. Exxon's investors are keenly interested in, and have often asked Exxon detailed questions about, the performance and risk profile of individual investments, including Kearl and other oil sands assets. Indeed, Exxon has presented information about Kearl specifically at each of its last seven annual analyst meetings in New York City.

169. Exxon's oil sands assets are also very GHG-intensive, and are thus particularly vulnerable to climate change regulation. Further, as some of Exxon's highest-cost projects, they

are particularly vulnerable to additional costs associated with GHG emissions. As HSBC Global Research noted in 2015, "oil sands face the greatest stranding risks, . . . given the combination of high breakeven price and higher carbon intensity of production." Contrary to its representations, Exxon's response to this acute risk was to remove the proxy cost guardrails that it had touted to its investors.

(ii) United States Assets and Investments

170. Exxon also failed to apply its publicly represented proxy cost to the projected GHG emissions associated with certain investments in the United States for which it had either received a permit to emit GHGs, or determined that no permit was required.

171. For example, Exxon did not apply a proxy cost with respect to an investment of over $1 billion in its Point Thomson gas field in Alaska in 2012 on the ground that it had received the necessary permit to emit a substantial quantity of GHGs.

172. Further, Exxon did not apply a proxy cost to investments totaling nearly $1 billion at its Baytown and Beaumont chemical plants, in 2011 and 2016, respectively, on the ground that the projected GHG emissions did not meet the threshold at which obtaining a permit would have been required under the Clean Air Act.

173. Exxon never disclosed to investors that it did not apply its proxy cost when it had received a permit to emit GHGs, or determined that no such permit was required under existing law. To the contrary, Exxon consistently represented that it expects climate change regulations to grow increasingly stringent over the long term, including in the United States and other OECD countries, and that applying its escalating proxy cost protected its investments from that risk. Nonetheless, for these major projects, with long-term cash flow implications, Exxon did not apply its publicly represented proxy cost, but instead assumed, contrary to its representations to

investors, that existing law would remain in place, indefinitely into the future, and would allow Exxon to continue to emit GHGs without ever imposing increased costs.

(iii) LNG Assets and Investments

174. Exxon also deviated from its public representations regarding the use of proxy costs in its "large and diverse portfolio" of liquefied natural gas projects around the world.

175. Like the oil sands in Alberta, LNG projects are particularly GHG-intensive. Specifically, LNG requires energy to convert natural gas to liquid form for purposes of transportation. According to an internal Exxon document, LNG was the sector "most impacted" by the prospective application of proxy costs. However, Exxon did not apply proxy costs to its GHG emissions in assessing project economics for major LNG projects.

176. For example, Exxon did not apply any proxy costs in 2016 to its projected GHG emissions in its economic model for an LNG project in Cyprus, an EU member state that was subject to the EU ETS cap-and-trade system, at the time of management's review. An Exxon employee observed that the omission was "material" to the economics of that project. At that time, Exxon had represented to investors that it applied a proxy cost in Cyprus that exceeded $40 per ton in 2040.

177. Likewise, Exxon's publicly represented proxy costs were not incorporated into cost projections for an Alaska LNG project. In January 2016, Exxon planners applied proxy costs of $14 per ton to GHG emissions in 2017, increasing $2 per year and plateauing at $40 per ton "max." At that time, Exxon had represented to investors that it applied a higher proxy cost in OECD countries including the United States, rising to $80 per ton in 2040.

(iv) Refinery Assets and Investments

178. Managers in Exxon's Refining and Supply business, which oversaw Exxon's downstream assets such as oil refineries, noted in March 2016 that planners in that business unit had not been applying the proxy cost figures in the Corporate Plan to project economics, either in base economic models or in sensitivity analyses. When asked to determine "how CO2 is handled in projects," the Global Project Development and Execution Manager wrote that "[w]e use the GHG pricing outlook *where there is an established program*, but don't think we have been applying a post 2020 sensitivity to projects." (Emphasis added.)

179. This was confirmed in June 2016 by a project executive in Refining and Supply, who stated internally: "We include the carbon cost (or credit) in projects where it is established by the government. We have not put in sensitivities where it is not anticipated, although we may want to reconsider based on the Paris agreement, but really need to have guidelines that would be consistent across all companies."

180. For downstream operations in Singapore, an Exxon planner stated in December 2016 that "we haven't to date been using [the proxy cost] in any of our projects." A manufacturing director in Exxon's downstream business estimated that an impending Singaporean GHG regulation "at roughly 10$ per ton but with likely significantly higher values in the future would . . . significantly impact the ability to compete in the region." By then, Exxon had represented to investors that the proxy cost it applied in Singapore was $20-$40 per ton by 2040.

181. Exxon's failure to apply publicly represented proxy costs in its refining business is significant. For example, in various internal analyses, Exxon found:

- "If CO2 emissions from refineries were charged 20 $/[ton] to emit, the impact on net margins could be significant, as high as -0.85 $/B[arrel]"

- "Potential CO2 cost for [Exxon] refinery emissions are significant compared to 2002-07 earnings"
- Refineries in the United States would become unprofitable at a carbon price of $30 per ton because "Cost of process emissions = Operating margin (@ $30/Tonne GHG)"
- GHG regulations on refineries could "force curtailment of some operations, and "could be significant relative to earnings."

182. Exxon's failure to apply its proxy cost to GHG emissions from its refineries contradicted its representations that, since 2007, "all business units use a consistent corporate planning basis, including the proxy cost of carbon . . . in evaluating capital expenditures and developing business plans."

(v) North American Natural Gas Assets and Investments

183. Exxon also failed to disclose to investors that it effectively avoided applying a proxy cost in its investment decision-making and business planning for its major North American natural gas assets, at least in 2016, by assuming that the company would be able to pass through any such costs to customers by increasing the prices for its natural gas products at the point of sale.

184. Exxon represented that the company requires that "all significant proposed projects include a cost of carbon – which reflects [its] best assessment of costs associated with potential GHG regulations over the Outlook period – when being evaluated for investment" (*see* ¶ 91 above). Nowhere did Exxon disclose that it was assuming that it would be able to pass on such costs to consumers. By applying this pass-through assumption (also called a "market recovery" assumption), Exxon effectively assumed that it would bear no costs at all in connection with the GHG emissions associated with these assets, and that it would pass on the

entire cost to consumers in the form of higher prices. Exxon's undisclosed application of this pass-through assumption rendered its proxy cost representations false and misleading.

185. Moreover, when Exxon made this pass-through assumption, it did not acknowledge the concomitant effects on gas prices. A pass-through assumption depends on a company's ability to raise prices in response to increased costs. However, Exxon did not factor the impact of its pass-through assumption into its price projections for natural gas in 2016 or earlier. Exxon simply assumed that it would be able to recover the costs associated with its GHG emissions by raising prices for customers, but did not incorporate those costs into its price analysis.

186. Likewise, Exxon did not incorporate the effects of passing through the cost of its GHG emissions to customers in its natural gas demand projections. In effect, Exxon assumed that demand for natural gas is perfectly inelastic, meaning that consumer demand is completely unaffected by changes in price. Such an assumption, which Exxon never disclosed, is contrary to the basic economic principle known as the "law of demand," under which there is an inverse relationship between quantity demanded and price.

187. By assuming that proxy costs associated with its North American natural gas assets would be fully passed through to customers, without any impact on price or demand, Exxon effectively treated these proxy costs as if they did not exist when evaluating the profitability of its investments. Applying this pass-through assumption allowed Exxon to avoid the "impact to profitability" that would have otherwise resulted from the application of proxy costs at its North American natural gas assets.

188. Exxon ultimately recognized that its pass-through assumptions were overly aggressive. For older, more GHG-intensive natural gas assets, pass-through is less likely, as

customers generally will not pay more for gas from those assets compared with newer, less GHG-intensive assets. Nonetheless, in 2016, Exxon assumed that it would be able to pass through the full amount of the proxy costs associated with GHG emissions at such older assets. In 2017, Exxon stopped assuming that it would be able to fully pass through its proxy costs at these older assets, at least for purposes of conducting impairment evaluations (*see* ¶ 246 below).

189. Exxon never informed investors that it had previously applied this flawed pass-through assumption in cost projections for its older, more GHG-intensive natural gas assets.

190. Through its undisclosed pass-through assumption, Exxon avoided internalizing the proxy costs associated with GHG emissions at its North American natural gas assets into its economics as it had represented to investors. Such an approach was entirely contrary to Exxon's stated risk management practices.

B. Exxon's Misrepresentations Regarding Its Use of a Proxy Cost in Oil and Gas Reserves and Resource Base Assessments

191. Exxon also sharply deviated from its publicly represented proxy costs in estimating the size of its company oil and gas reserves and resource base.

1. Oil and Gas Reserves and Resource Base Assessment Process

192. An oil and gas company's most valuable upstream assets are its "reserves," which refer to the amounts of hydrocarbons underground that the company (i) has a legal entitlement to extract and produce, and (ii) determines to be economically and technically producible within a specified degree of certainty.

193. Reserves are classified as either "proved," "probable," or "possible," in order of likelihood that they will be profitably extracted. "Proved reserves" – which must satisfy the SEC's definition to be included in a company's financial statements – represent the amount of

hydrocarbons in a particular reservoir with the highest confidence of economically feasible recovery.

194. An oil and gas company's reserves represent a subset of its total oil and gas "resources," or "resource base." Exxon defines its resource base as "the total remaining estimated quantities of oil and gas that are expected to be ultimately recoverable," which "includes quantities of oil and gas that are not yet classified as proved reserves under SEC definitions, but that [it] believes will ultimately be developed." The "resource base" is particularly significant because it represents the main source of future additions to Exxon's proved reserves.

195. Exxon, like its peers, calculates its resource base as part of an internal "company reserves" process, which is separate and distinct from the estimation of proved reserves under SEC-prescribed criteria. Exxon uses its company reserves assessments for internal business evaluations, while it uses SEC proved reserves estimates for annual disclosure of reserves in its 10-K filings. Exxon's planning and budgeting assumptions "underpin" Exxon's company reserves assessments, and those assessments are "based on the ExxonMobil cost basis and Company Plan Prices," not "the SEC prescribed cost and price basis." Thus, while SEC proved reserves estimates must be based on historical oil and gas prices and current costs, company reserves and resource base assessments are based on a company's own price and cost projections.

2. Exxon's Representations

196. Exxon repeatedly touted the size of its oil and gas resource base. For example, in its publicly available 2014 *Financial & Operating Review*, Exxon represented to investors that the total size of its resource base was more than 92 billion oil-equivalent barrels – significantly

greater than its proved reserves alone. Exxon further stated that "[t]he size and diversity of ExxonMobil's global resource base, the largest held by an international oil company, provide us with unequaled investment flexibility to profitably develop new supplies of energy to meet future demand." Exxon also highlighted the volume of its resource base on many other occasions, such as in its 2014 *Managing the Risks* report, its 2016 *Energy and Carbon Summary*, and a March 2014 presentation to prospective bondholders.

197. Exxon made three distinct representations concerning the application of proxy costs in assessing its company reserves and resource base.

198. First, Exxon explicitly represented that it applied a proxy cost in its reserves assessments. In seeking SEC approval to omit a shareholder resolution concerning climate change from its proxy statement, Exxon wrote in a February 2016 letter, copying the shareholder proponents: "The Company has tied its analysis of a proxy cost of carbon and that cost's effect on the company's oil and gas reserves to the time period between now and 2040."

199. Exxon also represented in *Managing the Risks* that, based on the analysis summarized in that report, including the company's purported use of a proxy cost, the company was "confident that none of [its] hydrocarbon reserves are now or will become 'stranded,'" and "does not believe current investments in new reserves are exposed to the risk of stranded assets."

200. Second, Exxon represented to investors that all of the company's business units incorporated its proxy cost as part of its business planning process, also known as "planning and budgeting."

201. A key element of Exxon's business planning is its company reserves and resource base assessments. According to the company's procedures and training materials, Exxon's company reserves and resource base assessments are "a key element that underpins the value of

the Corporation," and it is "[i]mportant to get probable [non-proved] reserves correct for planning and budgeting purposes." Moreover, a "good understanding" of Exxon's resource base is "important as it is a prime source of future Opportunity Generation and Asset value enhancement," which enables Exxon to "maximize value [and] maximize[e] economic recovery from all reservoirs." Exxon's resource base "represents [its] future production," and "[c]lear quantification" of those resources allows the company to "allocate[e] appropriate resources to projects, including people, capital, and new technology[.]"

202. Exxon's business planning involves "setting near-term operating and capital objectives in addition to providing the longer-term economic assumptions used for investment evaluation purposes." Exxon has repeatedly represented that it applied a proxy cost in its business planning. For example, in its 2014 *Energy and Climate* report, under the subheading "Evaluating climate risk in our planning," Exxon stated that it "requires that all business units use a consistent corporate planning basis, including the proxy cost of carbon discussed above, in evaluating capital expenditures and developing business plans." Likewise, in a December 2, 2015 publication on its website entitled *ExxonMobil and the carbon tax*, Exxon represented that it "has included a proxy price on carbon in our business planning since 2007." In a 2016 publication on its corporate website entitled *Meeting Global Needs – Managing Climate Change Business Risks*, Exxon similarly stated that its "GHG proxy cost is integral to ExxonMobil's planning."

203. Third, Exxon represented to investors, including in its 2016 *Energy and Carbon Summary*, that its "Reserves and Resources [are] Governed by a Rigorous Process with Reporting Integrity," and stated that its resource base assessments are "aligned with" the

Petroleum Resources Management System (PRMS), the common industry standard for evaluating reserves and resources.

204. PRMS states that all reserves and resource assessments "require application of a consistent set of forecast conditions, including assumed future costs and prices." PRMS guidelines further specify that such assessments "shall reflect," *inter alia*, "[t]he estimated costs associated with the project . . . including environmental . . . costs charged to the project, based on the [company's] view of the costs expected to apply in future periods." Likewise, PRMS states that "[r]esources evaluations are based on estimates of future production and the associated cash flow schedules."

205. Exxon repeatedly described its proxy costs as reflecting the company's view of the climate-related regulatory costs it expects to incur in the future. Such costs fall squarely within the consistency requirements of the PRMS guidelines. Exxon's representations that its resource base assessments were aligned with the PRMS guidelines are representations that the publicly disclosed proxy costs were incorporated into those estimates.

3. Exxon's Representations Were Inconsistent with Its Actual Practices

a) Exxon Did Not Apply the Publicly Represented Proxy Cost to Company Reserves and Resource Base Assessments for Oil Sands Assets in Alberta

206. Exxon did not apply its publicly represented proxy costs in the cost projections associated with its company reserves assessments for its Alberta oil sands assets. Rather, as with its investment decision-making, Exxon applied far lower existing legislated costs, held those costs flat into the future, and applied those costs to only a small percentage of emissions pursuant to existing legislation. This is a far cry from the higher, rising proxy costs that Exxon described

in its representations to investors. Accordingly, the company's representations were materially false and misleading.

207. On October 5, 2015, Exxon management instructed an Imperial planner tasked with evaluating company reserves to assume based on existing legislation that only 20% of GHG emissions would be taxed, and to "hold flat" that assumption indefinitely into the future.

208. In response, the planner expressed frustration, stating that "[t]he basis provided is different from the pricing/guidance at CP15 [2015 Corporate Plan]; Meaning, on this basis, our GHG costs are misaligned," and that the costs "need to be accurate & aligned . . . for our economics to be accurate." He then asked a colleague: "Just between ourselves ..... Why is it necessary to deviate from CP15 [2015 Corporate Plan] GHG assumptions?"

209. Rather than correcting this deviation, Exxon management decided, as described in an October 8, 2015 internal email, to "go 'full legislated' (legislated price of carbon, legislated intensity)." Thus, for purposes of evaluating company reserves, Exxon assumed that no new costs associated with GHG emissions would be imposed in Alberta, and (with respect to "intensity") that only 20% of GHG emissions would be taxed, indefinitely into the future.

210. Additionally, a November 2015 internal presentation concerning the Kearl oil sands asset states that, for company reserves assessments, Exxon was applying proxy costs that were "reflective of current Alberta legislation (not corporate guidance)." According to an internal company analysis, this resulted in an application of projected GHG-related costs at Kearl of approximately $0.25 USD per barrel rather than $4 USD per barrel, a difference of nearly 94%.

211. Exxon's employees observed significant economic impacts on company reserves and resource base volumes as a result of being instructed to use lower costs than the publicly

represented proxy cost. For example, an internal meeting invitation from August 2016 concerning company reserves assessments in Alberta states: "Last year, after initial guidance to use the EM [Exxon] corporate forecast (despite warnings it would result in **large write-downs**) we had to redo our calculations using legislated GHG taxes." (Emphasis added.)

212. Exxon's decision not to apply the publicly represented proxy costs to its company reserves assessments, and instead to apply existing legislated costs, also had a particularly significant impact on its multibillion dollar Cold Lake oil sands asset in Alberta.

213. In September 2015, an Imperial employee observed internally that applying the publicly represented proxy cost to evaluate company reserves at Cold Lake would "result in enough additional opex [operating expense] to shorten asset life and reduce gross reserves." According to the company's analysis, applying the publicly represented proxy costs would have reduced Cold Lake's asset life by 28 years and reduced company reserves by more than 300 million barrels of oil equivalent. The projected reduction in reserves would have reduced the company's revenues by billions of dollars.

214. An internal review confirmed that it was the "GHG tax price forecast" that "drives the reduced cash flow that shortens end of life" at Cold Lake.

215. As a result of these forecasts, Exxon's corporate planning department decided that a proxy cost should not be applied in assessing company reserves at Cold Lake. Instead, according to an October 2015 email by an Exxon reserves coordinator, corporate planning decided that existing Alberta "legislated price and intensity" (*i.e.*, the percentage of emissions to which the price is applied) should be used, which "reduce[d] the EOFL [end of field life] impact significantly." By not applying the publicly represented proxy costs, Exxon projected that it would be profitable for the company to continue producing at Cold Lake for a significantly

longer period of time, which led the company to report inflated company reserves and resource base figures.

216. Exxon reserves personnel were well aware, as an October 2015 internal meeting invitation made clear, that proxy cost assumptions have "significant reserves implications." Further, Exxon management was frequently briefed concerning company reserves assessments, including for assets where proxy costs had a significant impact. Nonetheless, Exxon chose not to apply its publicly represented proxy costs to its company reserves and resource base assessments for its oil sands assets in Alberta, thereby rendering its representations to investors false and misleading.

b) Before 2016, Exxon Generally Did Not Apply a Proxy Cost to Company Reserves and Resource Base Assessments

217. Before 2016, Exxon generally did not apply proxy costs to its GHG emissions for purposes of assessing its company reserves and resource base in many countries throughout the world. Indeed, until mid-2016, Exxon planners did not develop a methodology for applying proxy costs to GHG emissions for purposes of those estimates.

218. On July 20, 2016, Exxon's Deepwater Supervisor of Upstream Development Planning suggested to colleagues that they "start thinking about how to incorporate [the new 2016 Corporate Plan proxy costs] into our modeling on a more permanent basis including for Reserves." The next day, the same supervisor noted that a "methodology" for incorporating these costs into reserves assessments would be determined at an August 2016 meeting.

219. A Senior Upstream Advisor's notes from a December 2016 meeting state that company reserves calculations and asset recoverability (*i.e.*, impairment evaluations, discussed below) were two areas with "unintended consequences" resulting from the proxy cost guidance in the 2016 Corporate Plan.

220. Exxon's decision not to incorporate its publicly represented proxy cost into its company reserves and resource base assessments for many countries before mid-2016 rendered its representations relating to proxy costs and to company reserves and resource base assessments false and misleading.

4. Exxon's Decision Not to Apply a Proxy Cost to Company Reserves and Resource Base Assessments Is Material to Investors

221. An oil and gas company's non-proved reserves and resource base represent its sources of future growth. Exxon's reserves and resource base size are thus highly important to investors, and the company often publicizes its ability to exploit its large oil and gas resource base. For example, at a 2015 meeting with equity research analysts in New York City, then-CEO Rex Tillerson stated:

> The lifeblood of our business relies upon capturing the highest quality resources. . . . These resource captures add to our high-quality 92 billion oil-equivalent barrel resource base, which is the largest and most diverse resource base in the industry. . . . Simply put, our large resource base affords us the flexibility to select and develop the most attractive opportunities.

222. Similarly, Rex Tillerson described Exxon's "enormously large resource base" as a prerequisite to the company's "selective investment process," which he frequently touted to investors.

223. Exxon failed to disclose to investors that, in estimating the reserves and resource base volumes that are the "lifeblood" of the company, it decided not to apply the proxy costs that it publicly represented. Further, Exxon did not disclose that it was choosing to exclude such proxy costs just when they would have had particularly consequential effects, such as "large write-downs" or "significantly" reducing an asset's projected production life. This information

would have been highly significant to investors from the perspectives of both climate change regulatory risk and the status of Exxon's resource base more generally.

224. Additionally, company reserves estimates are inputs that feed into Exxon's impairment assessments, which are discussed below. Exxon's decision not to include its publicly represented proxy cost in its company reserves assessments therefore caused Exxon to utilize assumptions for impairment evaluation purposes that were inconsistent with its public representations.

C. Exxon's Misrepresentations Regarding Its Use of a Proxy Cost in Evaluations for Impairment of Long-Lived Assets

225. Exxon flouted its representations to investors, as well as applicable accounting standards, by failing to apply proxy cost assumptions in its impairment evaluations that were consistent with the assumptions described in its public statements.

1. Impairment Evaluation Process

226. An impairment evaluation is the process mandated by accounting rules for determining whether the value of an asset is less than the value listed on a company's balance sheet. Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 360 governs accounting for the impairment (*i.e.*, "write-down") of long-lived assets[7] under U.S. Generally Accepted Accounting Principles ("GAAP"). GAAP are accounting standards that companies reporting their financial results in the United States must follow.

[7] A long-lived asset is an asset that a company expects to retain for at least one year. Included within long-lived assets are a company's property, plant, and equipment, *i.e.*, its tangible property, which includes oil and gas-related assets. Both an impairment of a long-lived asset and a reduction in estimated reserves volumes can be referred to as a "write-down."

227. ASC 360 sets out a three-step process for identifying and measuring the impairment of long-lived assets.

228. First, a company must assess whether indicators of potential impairment are present. Examples of such indicators, also known as "impairment triggers," include (i) a "current-period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset"; (ii) a "significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset . . . including an adverse action or assessment by a regulator"; and (iii) an "accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset." Exxon has repeatedly represented to investors that it follows this accounting rule by "perform[ing] asset valuation analyses on an ongoing basis as a part of its asset management program" to determine whether impairment triggers are present.

229. Second, if one or more impairment triggers are present, a company must test the asset in question by comparing its "carrying value" as set forth on the company's balance sheet, and included within the "property, plant and equipment" portion of its financial statements, with the sum of the undiscounted future cash flows expected to result from the asset's use and disposition. If the sum of undiscounted future cash flows is less than the asset's carrying value, then that carrying value is not considered to be recoverable, and an impairment loss must be recognized and reported. Exxon has represented in its public filings that it has complied with its obligations under this accounting requirement.

230. To the extent that an impairment trigger is identified based on an analysis of an asset's projected future cash flows (*see* ¶ 228 above), the same cash flow analysis is used to

determine whether the sum of undiscounted future cash flows is less than the asset's carrying value.

231. Third, if the sum of undiscounted future cash flows is less than a long-lived asset's carrying value, then a company must recognize and report an impairment loss equal to the difference between the carrying value and the fair value of the asset.[8] Exxon has represented to investors that it has complied with its obligations under this accounting requirement.

232. In developing future cash flow estimates to determine whether an impairment trigger exists or whether the carrying amount of an asset is recoverable, accounting standards state that a company "shall incorporate [its] own assumptions . . . and shall consider all available evidence." According to the accounting standards, "[t]he assumptions used in developing those estimates shall be reasonable in relation to the assumptions used in developing other information used by the [company] for comparable periods, such as internal budgets and projections, accruals related to incentive compensation plans, or information communicated to others." By contrast, if an asset is impaired, then the magnitude of the impairment is measured using fair value, which incorporates marketplace assumptions that may be different from the company's own assumptions.

2. Exxon's Representations

233. Exxon repeatedly represented that it follows GAAP accounting standards in preparing its public filings. Exxon specifically represented that it follows the accounting rules relating to impairment of long-lived assets set out in ASC 360.

[8] Fair value is based on market prices if an active market exists for the asset, and is otherwise based on a discounted cash flow analysis.

234. Exxon also repeatedly represented to investors that it uses cost assumptions for impairment evaluations that are "consistent" with those it uses in its annual planning and budgeting process and in investment decisions. For example, in its 2015 Form 10-K, Exxon stated: "Cash flows used in impairment evaluations . . . make use of the Corporation's price, margin, volume, and cost assumptions developed in the annual planning and budgeting process, and are consistent with the criteria management uses to evaluate investment opportunities." Exxon made essentially the same representation the following year in its 2016 Form 10-K.

235. Exxon's assumptions concerning a proxy cost of GHG emissions are a quintessential "cost assumption" of the kind that Exxon represented it would apply in its impairment evaluations in a manner consistent with its investment decision-making criteria, planning and budgeting process, and public communications.

236. As set forth below, Exxon failed to act in a manner consistent with these representations or with GAAP requirements.

3. Exxon's Representations Were Inconsistent with Its Actual Practices

237. Exxon's senior management has expressed general opposition to taking impairments. For example, Exxon's then-CEO Rex Tillerson stated in an August 2015 interview:

> We don't do write-downs. I mean, if you look at our history, we do not write investments down. And we follow the accounting standards. But a lot of other people are very quick to want to write investments down because then it kind of improves things going forward. . . . [W]e're not going to bail you out by writing that down. That's kind of the message to our organization, and they all understand that.

238. Exxon management's reluctance to take impairments is also illustrated by a March 2014 email in which Exxon's Vice President for Investor Relations recommended that a

footnote concerning asset impairment be removed from the company's *Managing the Risks* report (as indeed it was) because "[t]hat word gives the folks on the third floor heartburn." The "third floor" is a reference to Exxon's executive suite.

239. It was in this context of senior management's general opposition to taking impairments that Exxon deviated from its representations in the following ways.

a) Prior to 2016, Exxon Misled Investors by Not Incorporating Proxy Costs into Cost Projections for Impairment Evaluations

240. Contrary to its representations to investors, Exxon did not incorporate a proxy cost of GHG emissions in making cost projections for purposes of its impairment evaluations for any of its assets prior to its year-end 2016 evaluation. In particular, Exxon did not incorporate such costs in determining whether impairment triggers related to future cash flows existed, or whether the carrying value of its assets was recoverable.

241. This was no oversight. Exxon's Assistant Controller testified that he was aware in 2015 that the cost projections in Exxon's impairment evaluations did not incorporate a proxy cost of GHG emissions.

242. Exxon's knowing failure to apply a proxy cost to its projected GHG emissions in its impairment evaluations made its representations materially misleading. By using cost assumptions for its impairment evaluations that differed from, and were more favorable than, those it used for other business purposes and stated in its public communications, Exxon misled investors concerning the value of its assets.

b) In 2016, Exxon Misled Investors by Incorporating Proxy Costs into Cost Projections for Impairment Evaluations in a Limited, Internally Inconsistent Manner

243. In its 2016 year-end impairment evaluations, Exxon incorporated a proxy cost of GHG emissions into some of its cost projections for the first time, but even then did so in a limited and internally inconsistent manner that rendered its impairment-related representations materially misleading.

244. First, Exxon applied existing, legislated costs associated with GHG emissions in conducting impairment evaluations for oil sands assets in Alberta rather than the proxy costs set out in its public statements and internal guidance. Exxon thus assumed that existing costs would remain flat indefinitely into the future rather than applying a proxy cost. As set forth above, this practice was contrary to Exxon's representations.

245. Second, Exxon assumed for purposes of its year-end 2016 impairment evaluations that any proxy cost of GHG emissions associated with natural gas production would be fully recovered in the market and passed through to customers via higher prices. As discussed above at ¶ 184, this means that Exxon was assuming that it would bear no costs resulting from the GHG emissions caused by its natural gas production, and that such emissions would have no effect on the value of its assets. This rendered misleading the company's representations that it applied assumptions in its impairment evaluations that were consistent with its business processes and public communications, such as its statements concerning the "consistent" application of a proxy cost of GHG emissions.

246. Exxon also applied this pass-through assumption in an internally inconsistent manner, as discussed above at ¶¶ 185-90. Exxon did not incorporate its pass-through assumption into its natural gas demand or price projections in 2016, even though recovery in the market depends on raising prices, meaning that Exxon effectively assumed that its proxy cost would

simply disappear. Moreover, Exxon assumed in 2016 that it would be able to pass through to its customers all of its GHG-related costs at its older, more GHG-intensive assets, even though passing through those assets' high GHG-related costs would render Exxon's product uncompetitive on the market. Exxon recognized internally in 2017 that it would not be able to fully pass through GHG-related costs at those older assets, but never disclosed that it had applied an unrealistic pass-through assumption in 2016.

247. Additionally, Exxon's purported justification for its pass-through assumption was based on conditions in North America, not conditions in other regions, yet Exxon nonetheless applied its pass-through assumption for natural gas assets outside of North America in its 2016 impairment assessments.

248. Third, for its XTO natural gas assets, Exxon assumed in calculating proxy costs for impairment evaluation purposes that GHG emissions would decrease every year going forward. To the extent that such reductions occur, they would likely require upfront costs, such as the cost of purchasing and installing more efficient equipment. However, Exxon did not incorporate costs associated with achieving those GHG emissions reductions into its impairment evaluations for many of those assets. Exxon thus assumed, without justification, that the costs associated with its GHG emissions would decline significantly over time without any upfront expenditures by Exxon.

249. These undisclosed practices limited Exxon's application of a proxy cost of GHG emissions to the cost projections associated with its impairment evaluations in 2016. In doing so, they rendered misleading Exxon's representations that it followed the impairment-related accounting standards and applied assumptions to its impairment evaluations that were consistent

with those set out in the company's public communications and applied for other business purposes.

4. Exxon's Impairment-Related Misrepresentations Are Material to Investors

250. Exxon's decision not to apply a proxy cost in its impairment analysis before 2016, and its decision to apply those costs in only a very limited manner in 2016, were particularly significant in light of the company's economic position. As oil and gas prices plunged in 2014 and 2015, Exxon took no price-related impairments, even as other major oil and gas companies did so. Indeed, Exxon stated publicly that it "does not view temporarily low prices or margins as a trigger event for conducting impairment tests." With oil and gas prices at low levels, Exxon relied on long-term cash flow models to forecast that certain of its assets, even if losing money currently and in the short-term, would ultimately generate cash flows that exceed their carrying values, and thus were not impaired or did not exhibit triggers for impairment evaluation.

251. Meanwhile, Exxon publicly represented that its proxy cost of GHG emissions rises over time, and assured investors that it was "confident that none of [its] hydrocarbon reserves are now or will become 'stranded'" and that "the company does not believe current investments in new reserves are exposed to the risk of stranded assets."

252. Exxon failed to disclose to investors that, despite this optimistic assessment, it did not even apply a proxy cost – the very mechanism the company purportedly used to manage climate change regulatory risk – to its GHG emissions in its impairment evaluations.

253. Exxon thus used long-term projections of profit to downplay short-term losses for impairment evaluation purposes. But it omitted from those long-term projections the proxy cost of GHG emissions that it had repeatedly touted to investors, all the while misleadingly assuring

investors that its assets were not at risk of being stranded due to rising costs associated with GHG emissions.

254. Had Exxon applied its proxy cost of GHG emissions to the cost projections associated with its impairment evaluations in 2015 as it had represented, at least one of Exxon's major upstream assets in the United States would have been subject to a significant impairment.

255. Moreover, according to Exxon's own analysis, if the company had not applied a pass-through assumption to the projected GHG emissions associated with natural gas production for its impairment evaluations in 2016, that same major U.S. asset would have been subject to a significant impairment (if it were not impaired in 2015). In fact, this asset would have been subject to a significant impairment in 2016 even if Exxon had assumed that only half of the proxy cost of GHG emissions associated with natural gas production at that site could be passed through to consumers.

256. Additionally, an analysis by Exxon indicates that, had the company not assumed that it would be able to pass through proxy costs to consumers by raising natural gas prices outside of North America, at least one of Exxon's major European upstream assets would have been impaired in 2016.

257. Exxon's impairment practices are critical to an investor's understanding of the company's financial picture and attendant risks. The materiality of Exxon's impairment practices is underscored by Exxon management's emphasis on the significance of the company's relative lack of write-downs. For example, at a March 2016 meeting with equity research analysts in New York, then-CEO Tillerson distinguished Exxon from its competitors by stating that "[t]he quality of ExxonMobil's portfolio is also evident relative to significant, recent asset impairments by our competitor group." Investors' understanding of the quality of Exxon's

portfolio was undermined by the company's misleading representations concerning its impairment evaluations.

D. Exxon's Representations About Its Consistent Application of Proxy Costs Were False and Misleading

258. Exxon management also failed to implement internal controls or processes to ensure consistent application of proxy costs.

259. As a result of this failure, Exxon's claims that it used a "consistent corporate planning basis" in applying its proxy cost to its investment decisions, business planning, and financial reporting, and that it "rigorously consider[ed] the risk of climate change in [its] planning bases and investments," were false and misleading.

260. In effect, Exxon erected a Potemkin village to ward off investor proposals and inquiries about climate change regulatory risk. The yearly *Outlook for Energy* reports, the 2014 *Managing the Risks* and *Energy and Climate* reports, and other publications presented a carefully constructed and rosy picture of Exxon's use of the publicly represented proxy cost to manage the economic risk posed by climate change. But investors were never told that, for years, Exxon (i) repeatedly and deliberately chose not to incorporate such costs at all, or did so only to a limited extent, and (ii) did not monitor whether those costs were actually applied consistently throughout the company.

261. The Exxon managers who had responsibility for GHG-related issues failed to ensure that the publicly represented proxy costs were consistently used in the company's investment decision-making, business planning, or financial reporting.

262. For example, Exxon's Manager of Environmental Policy and Planning testified that he was unaware of anyone in the company who verified that costs associated with GHG emissions were actually applied by the business units.

263. Likewise, Exxon's GHG Manager testified that he did not review cash flow models to ensure that costs associated with GHG emissions were properly incorporated.

264. As a result of Exxon's failure to implement a process that matched its representations to investors, Exxon's publicly represented proxy costs were not consistently or rigorously applied, and were often not applied at all, in the company's business processes.

III. EXXON'S FRAUD REGARDING ITS USE OF A PROXY COST IN ITS DEMAND AND PRICE PROJECTIONS

265. Exxon also did not apply a proxy cost of GHG emissions as represented in projecting oil and gas demand, oil and gas prices, or the company's revenues.

A. Exxon's Representations

266. As set forth above, in its *Outlook for Energy* reports and other public statements, Exxon described its purported adoption of a rising proxy cost of GHG emissions as a means of incorporating its expectation of increasingly stringent climate regulations into the company's investment decisions, business planning, and financial reporting.

267. One aspect of Exxon's business decisions, planning, and reporting is the projection of its revenues, which are influenced by the company's expectations as to future oil and gas prices. Because future climate policies may influence demand for oil and gas, which affects oil and gas prices, Exxon represented that it applied a proxy cost of GHG emissions in estimating demand, just as it represented that it applied a proxy cost in projecting its own costs. For example, at a 2015 meeting held at the New York Stock Exchange, then-CEO Rex Tillerson told research analysts that the company's "demand projections anticipate government policies will impose rising costs on carbon dioxide emissions."

268. Exxon represented that it applied proxy costs in estimating demand for oil and gas in all significant economic sectors, and that proxy costs were incorporated into the company's project economics.

269. However, Exxon's application of proxy costs to its demand, price, and revenue projections deviated from the company's representations in two important ways. First, contrary to its representations, Exxon did not apply its proxy cost in estimating demand in the transportation sector. Second, the projected oil and gas prices that Exxon applied in its economic models were set with little reference to the company's demand analysis. As a result, Exxon's publicly represented proxy costs did not meaningfully influence its revenue projections, rendering the company's proxy cost-related representations misleading.

B. Exxon's Failure to Apply Its Proxy Cost in Projecting Demand in the Transportation Sector

270. Exxon has made numerous representations that it applied its proxy cost broadly across relevant economic sectors, including the transportation sector.

271. For example, in its 2014 *Managing the Risks* report, Exxon stated that its proxy cost "seeks to reflect all types of actions and policies that governments may take over the Outlook period relating to the exploration, development, production, transportation or use of carbon-based fuels."

272. Exxon made the same or similar statements about the broad scope of its application of a proxy cost in numerous publications, including its 2014, 2015 and 2016 responses to CDP, its 2015 Corporate Citizenship Report, and its 2016 proxy statement to shareholders.

273. Likewise, in its 2013 *Outlook for Energy*, after describing its proxy cost, Exxon explained that "rising CO_2 costs will have a variety of impacts on . . . energy use in *every sector*

and region within any given country." (Emphasis added.) In that report, Exxon projected that energy demand will increase over the coming decades, and that this includes "[g]rowth in transportation sector demand."

274. In practice, Exxon did not apply the publicly represented proxy cost to the transportation sector in projecting demand for oil and gas.[9] In May 2011, Exxon's Senior Energy Advisor explained internally that the company's proxy cost for future regulations was factored into demand projections only for "non-transport sectors." By failing to apply its proxy cost in the transportation sector as represented, Exxon overestimated demand for its products, because applying a cost of GHG emissions would have suppressed future demand for oil and gas. (*See* ¶ 186 above.)

275. The transportation sector is important to Exxon's overall business. Exxon projects that oil, which accounts for roughly half of the company's reserves and resource base, will remain the world's "leading energy source," and that the transportation sector will be a key source of growth in oil demand. For example, in its 2017 Form 10-K, Exxon stated that it expects global demand for liquid fuels to grow by about 20% by 2040, and that it expects about 60% of this growth to derive from the transportation sector. Indeed, the transportation sector accounts for more than half of worldwide demand for crude oil. Despite the importance of the transportation sector to its overall business, Exxon did not apply the publicly represented proxy cost to demand projections in that sector, and never disclosed its failure to do so to investors.

[9] Exxon also did not apply the publicly represented proxy cost in projecting demand in the asphalt and lubricants sectors.

C. Exxon's Failure to Apply Its Proxy Cost in Projecting Oil and Gas Prices

276. Regardless of any limited role that proxy costs may have played in Exxon's oil and gas demand forecasts, that analysis did not meaningfully influence Exxon's oil and gas price projections.

277. Exxon's representations that it applied a proxy cost of GHG emissions in estimating future demand for oil and gas would have led a reasonable investor to conclude that Exxon's oil and gas price projections also took into account such proxy costs, because demand forecasts would necessarily impact prices.

278. However, in practice, Exxon did not set its oil and gas price projections, also called its Corporate Plan prices, by means of a formula or other quantitative process that incorporated its demand analysis. Rather, setting Exxon's Corporate Plan Prices was the responsibility of then-CEO Rex Tillerson, and he did so based primarily on factors independent of the company's demand analysis.

279. In a 2013 memorandum, the outgoing Planning Manager of Corporate Strategic Planning explained to his successor that Mr. Tillerson set price projections for crude oil at a level that would serve as a "signal" to the company:

> Be careful – the Brent price basis is [Tillerson]'s purview. Do not suggest that you know best. You can make a suggestion or proposal if asked, but be humble about it. **Rex's decision will be more about the signal that he wants to send the organization than about what we think the market will actually do**. (emphasis added)

280. The outgoing Planning Manager similarly explained in another transition memorandum:

> Note that Rex [Tillerson] does not like us to suggest a crude price basis – just review the facts and finish the meeting with a reminder of last year's crude price basis and let him decide what he wants to do.

281. Rex Tillerson's practice of setting oil and gas price projections in order to send a particular signal – rather than setting those projections based on demand projections that incorporated proxy costs – means that any link between Exxon's proxy cost and its actual economic decision-making was severed.

282. In all of its public statements touting its proxy cost, Exxon never told investors that the proxy cost was disconnected from the company's actual business decisions, which renders those statements materially false and misleading.

283. The actual oil and gas price projections that were ultimately approved did not meaningfully incorporate Exxon's publicly represented proxy costs. Exxon's publicly represented proxy costs escalate in real (*i.e.,* pre-inflation) dollars over time. By contrast, the company's long-term oil and gas price projections in the Corporate Plan plateau in real terms within a few years of the date of the projection. For example, in its 2014 Corporate Plan, Exxon instructed its planners to assume that oil prices would plateau in 2015 and remain at that level indefinitely into the future. Similarly, in its 2015 Corporate Plan, Exxon instructed its planners to apply flat oil and gas prices from "2020+" in their economic projections. By contrast, Exxon's publicly represented proxy cost increased significantly in real terms after 2020, reaching $60 per ton in 2030 and $80 per ton in 2040.

284. In testimony, Exxon employees have been unable to explain how the fact that the Corporate Plan oil and gas prices plateau in real dollars within a few years of the projection date could be consistent with proxy costs that increase significantly over the coming decades, if the Corporate Plan prices had indeed meaningfully incorporated Exxon's proxy cost.

285. By failing to apply its proxy cost to demand projections in important sectors, and by failing to meaningfully incorporate such costs into its oil and gas price or revenue projections,

Exxon misled investors about the extent to which the proxy cost it publicly described was incorporated into its business decisions.

IV. EXXON'S FRAUD REGARDING RISKS TO ITS BUSINESS POSED BY TWO DEGREE SCENARIO

286. In *Managing the Risks*, one of the two reports that Exxon published in March 2014 in response to shareholder concerns about climate risk, Exxon concluded that it was "confident that none of [its] hydrocarbon reserves are now or will become 'stranded,'" and that it "does not believe current investments in new reserves are exposed to the risk of stranded assets."

287. A key basis for this conclusion was Exxon's much-touted application of a proxy cost of GHG emissions, which purportedly ensured that Exxon's investment decisions, business planning, and financial reporting incorporated the company's projections of rising costs associated with GHG emissions due to increasingly stringent climate regulation.

288. A second important basis for Exxon's conclusion that it was not subject to stranded asset risk was an analysis that purportedly showed that governments would not impose the more stringent climate regulations that would be necessary to achieve a "two degree" scenario, and that governments thus would not impose additional regulations beyond those which Exxon claimed it already incorporated into its proxy costs. This analysis, which Exxon set out in *Managing the Risks* and in numerous other representations to investors, was materially misleading.

289. The "two degree" scenario refers to a scenario in which deep cuts in global GHG emissions are achieved to limit the increase in global temperature to below two degrees Celsius above pre-industrial levels. According to the Intergovernmental Panel on Climate Change ("IPCC"), a United Nations organization, the average GHG concentration in the atmosphere

should not exceed 450 parts per million (ppm) to have a likely chance of keeping global warming below two degrees Celsius. The two degree scenario, also known as the "450 ppm" or "low carbon" scenario, has become an international climate policy goal.

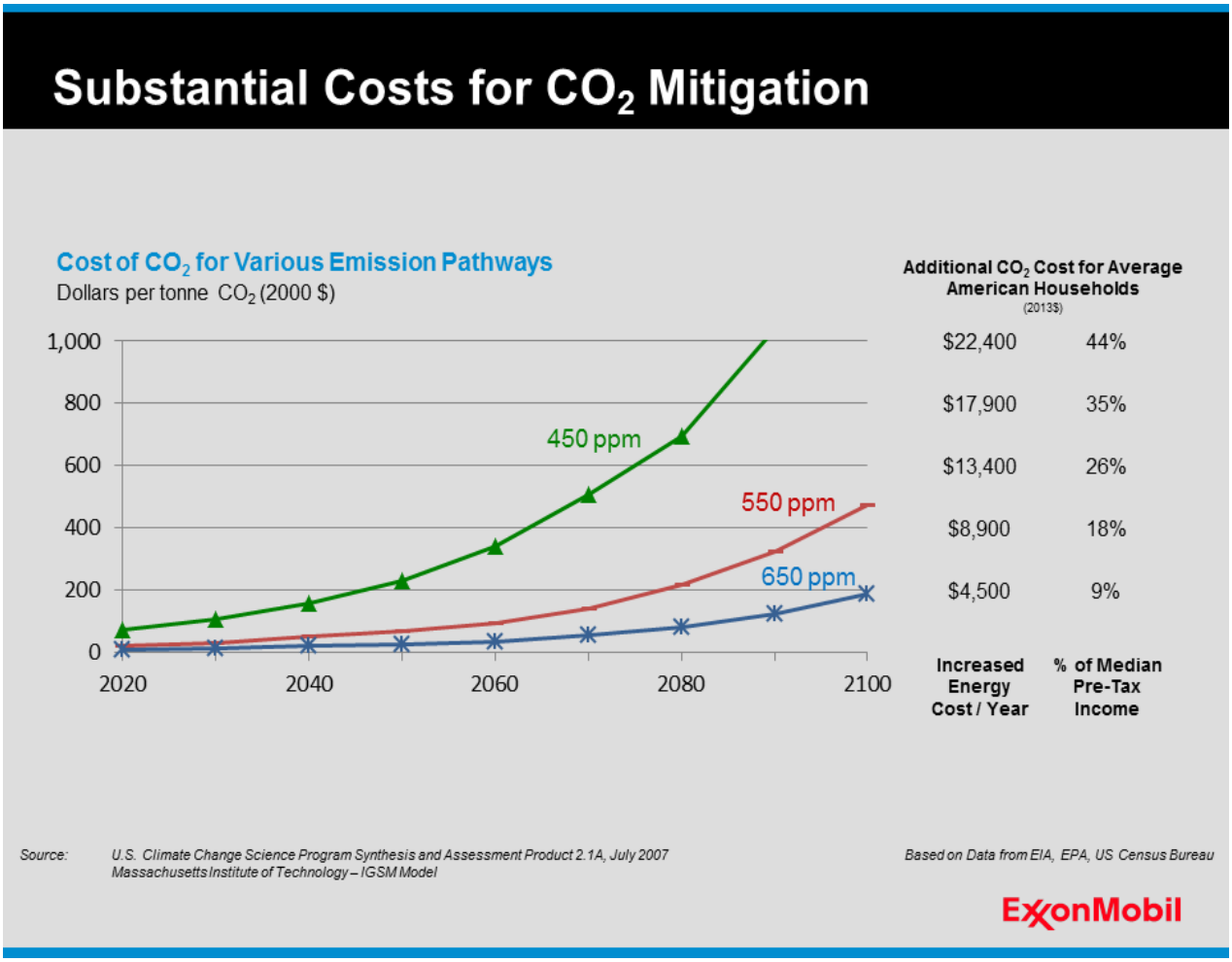
290. Numerous observers have questioned whether the exploitation of much of the world's existing fossil fuel reserves would be consistent with the two degree scenario. For example, a November 2011 report by the nonprofit Carbon Tracker Initiative observed that achieving the two degree scenario would require that cumulative future GHG emissions be kept below a certain threshold – in effect, a "global carbon budget." The emissions from combusting existing fossil fuel reserves, however, would far exceed that budget. To achieve a two degree scenario, according to Carbon Tracker, only 20% of global reserves of oil, gas, and coal could be used, while the remaining 80% of fossil fuel reserves would be "subject to impairment" and "stranded." Similarly, the International Energy Agency ("IEA") has concluded that, under a two degree scenario, substantial oil and gas reserves may be stranded.

291. Exxon's investors have expressed concern that the company's oil and gas reserves are vulnerable to becoming stranded under a two degree scenario. In the 2014 shareholder resolution that resulted in Exxon's release of its *Managing the Risks* report, the shareholders asked the company to issue a report on its "strategy to address the risk of stranded assets presented by global climate change, including analysis of long and short term financial and operational risks to the company." As a result, in *Managing the Risks*, Exxon addressed the "concern expressed by some of [its] stakeholders" regarding "whether [] a 'low carbon scenario' could impact ExxonMobil's reserves and operations – *i.e.*, whether this would result in unburnable proved reserves of oil and natural gas." Exxon made clear that, by "low carbon scenario," it was referring to the two degree scenario.

292. Exxon concluded in *Managing the Risks* that a two degree scenario is "highly unlikely" to occur because such a scenario would impose enormous CO_2 costs on consumers, and that Exxon therefore does not face a risk of its assets becoming stranded. This conclusion rested upon a deeply misleading analysis that was purportedly supported by government and academic data, which it was not.

A. Exxon's Representations

293. In support of its conclusion that a two degree scenario would impose enormous costs on consumers, Exxon presented the following graphic in its *Managing the Risks* report:



294. The left section of this graphic sets out three pathways for dollars per ton of CO_2 costs over the years 2020 through 2100. According to the report, these pathways were "representative of scenarios with assumed climate policies that stabilize GHGs in the atmosphere at various levels, from 650 ppm CO2 down to 450 ppm CO2, a level approximating the level asserted to have a reasonable chance at meeting the 'low carbon scenario.'"

295. The report then stated: "In the right section of the [graphic], different levels of added CO2 are converted to estimated added annual energy costs for an average American family earning the median income. For example, by 2030 for the 450ppm CO2 stabilization pathway, the average American household would face an added CO2 cost of almost $2,350 per year for energy, amounting to about 5% of total before-tax median income. These costs would need to escalate steeply over time, and be more than double the 2030 level by mid-century."

296. The horizontal lines representing dollars per ton of CO_2 on the left side of the graphic align with the columns on the right side projecting CO_2 cost impacts for the average American household. For example, according to the graphic, under the two degree (450 ppm) scenario, the cost of CO_2 would rise to $1,000 per ton by 2090. According to the graphic, this corresponds to increased yearly energy costs of $22,400, or 44% of median pre-tax income.

297. Exxon asserted that the three "pathways" in this graphic were taken from the Massachusetts Institute of Technology's Integrated Global Systems Model ("MIT IGSM model") used in the 2007 U.S. Climate Change Science Program study ("2007 U.S. Report"),[10] and that the household cost analysis was "[b]ased on data from" three government agencies: the U.S. Energy Information Administration, the EPA, and the U.S. Census Bureau.

[10] The MIT IGSM model was one of three models presented in the 2007 U.S. Report, and it projected higher carbon prices under the two degree scenario than either of the other models.

B. Exxon's Representations Were Misleading Because They Were Based on Assumptions Exxon Knew Were Unsupported and Unreasonable

298. Exxon's analysis of the CO_2 costs likely to result from a two degree scenario relied on unreasonable and undisclosed assumptions that resulted in a gross overstatement of projected costs under such a scenario. Further, Exxon falsely implied that its analysis was supported by reputable academic and government sources, which it was not.

299. First, Exxon's analysis assumed that American household energy use, the U.S. energy mix (*i.e.*, sources of energy), and attendant GHG emissions would remain at the same level through 2100, even if governments imposed climate policies sufficient to achieve a two degree scenario. This assumption, which is not supported by any of the sources upon which Exxon purported to rely, is completely unreasonable. The very point of climate regulation intended to achieve a two degree scenario is to reduce GHG emissions, which involves a reduction in energy consumption and a shift to cleaner sources of energy, such as renewables. Indeed, all three of the climate models presented in the 2007 U.S. Report, including the MIT IGSM model upon which Exxon purportedly relied, found that reductions in energy consumption "play an important role in all of the stabilization scenarios," along with displacement by renewables. Yet Exxon, having determined that certain carbon costs would be necessary to achieve a two degree scenario, made the further undisclosed assumption that imposing those costs would not actually result in a two degree scenario after all, but that households would instead continue to consume energy and emit GHGs at exactly the same rate as before. Because this scenario would require consumers to pay extremely high energy costs, reaching nearly half of median pre-tax income by 2090, Exxon concluded that governments would not impose regulations consistent with a two degree scenario in the first place.

300. Second, in calculating the percentage of median pre-tax income that would be consumed by these energy cost projections, Exxon made the undisclosed assumption that American household income would remain the same through 2100 as it was in 2013. None of the data sources cited by Exxon projected that American household income would remain flat through 2100, and such an assumption is at odds with Exxon's projections of robust GDP growth elsewhere in *Managing the Risks*, as well as GDP growth projections in the MIT IGSM model.

301. Third, in projecting carbon costs under a two degree scenario, Exxon made the undisclosed assumption that the revenues associated with carbon taxes would simply disappear, and would not be returned to American households in any fashion, such as through cuts to other taxes or improvements in government services. Yet elsewhere in *Managing the Risks*, Exxon recognized that the revenues associated with carbon taxes would not disappear, and proposed that carbon taxes should be "revenue-neutral" (*i.e.*, should be offset by reducing other taxes). Indeed, Exxon was aware of MIT research which it summarized internally as follows: "consumers may also *benefit* from a carbon tax policy, depending upon how the government redistributes revenues from carbon taxes or allowance auctions."

302. By listing the MIT IGSM model as a source, Exxon implied that its estimates of additional CO_2 costs for average American households were consistent with that model. This was not true. While the carbon price projections on the left side of the graphic were derived from MIT's IGSM model, the household carbon cost projections on the right side of the graphic were calculated by Exxon. These cost projections were inconsistent with the MIT IGSM model in that they overstated projected costs by assuming no reduction in energy use or GHG emissions under a two degree scenario, and by assuming no growth in American household income through

2100. Exxon's projections were also inconsistent with other MIT research known to Exxon concerning the use of carbon tax revenue.

303. Following the release of the *Managing the Risks* report, an MIT economist who worked on the IGSM model warned Exxon that its statements as to CO_2 cost impacts on the average American household under a two degree scenario were misleading. Specifically, in July 2015, the MIT economist wrote to Exxon to discuss "the cost of climate policy in your shareholders report attributed to the IGSM results." The MIT economist told Exxon that these numbers were "not numbers we report in that study" and "were extremely high," "especially the 40+%" figure for the percentage of pre-tax median income projected to be consumed by energy costs under the two degree scenario. The MIT economist advised Exxon that, if this figure represented undiscounted costs as a percentage of income (as it does), then the analysis that Exxon presented was "misleading" in that it overstated the costs associated with a two degree scenario.

304. Ignoring this warning as to the misleading nature of the graphic, Exxon continued to feature *Managing the Risks* on its corporate website, and its representatives continued to make numerous presentations to investors and other interested parties through at least June 2016 that included this misleading graphic.

305. For example, in November 2015, Exxon's Manager of Environmental Policy and Planning gave presentations which included this graphic. His talking points concluded that Exxon did not consider the 450 ppm scenario to be a "realistic, meaningful or practical case on which to plan our business," and that "MIT economists agree." Those talking points also stated: "[a]t $200/ton, we are talking over $4,000 per year added cost, or nearly 10% of median income." This purportedly direct connection between the carbon costs described on the left side

of the graphic and the effects on household income on the right side was misleading for the reasons described above.

306. Exxon's investors paid close attention to the company's statements on this issue. For example, in a 2015 analysis of Exxon's climate-related risks, Bank of America Merrill Lynch took note of Exxon's view that a two degree scenario is "highly unlikely" and "would require CO_2 prices to rise above $200 per ton by 2050."

307. Likewise, in a 2016 internal analysis of Exxon's climate change risks, Vanguard stated that although Exxon's portfolio does not appear to be "structured to withstand" a two degree scenario, Exxon's analysis concluded that such a scenario is unlikely.

308. Having concluded that a two degree scenario is unlikely to occur, Exxon failed to conduct any meaningful analysis of the company's exposure to economic stranding in such a scenario, including, for example, whether the company's reserves would be cost competitive to develop and produce, as compared to competitors' reserves.

V. EXXON'S FRAUD CAUSED SIGNIFICANT HARM

309. Investors in Exxon's equity and debt securities were harmed, and are still being harmed, as a result of Exxon's false and misleading statements and omissions of material fact.

310. Exxon did not incorporate climate change regulatory risk into its business processes in the manner it represented to investors. This failure resulted in the company having a materially different risk profile than it would have had if it had actually incorporated climate change regulatory risk into its business in the manner it represented to investors.

311. In particular, Exxon's investments and asset valuations were, and remain, riskier than investors were led to believe, because the company did not apply the publicly represented proxy cost to its investment decisions, business planning, company reserves and resource base

assessments, impairment evaluations, and demand and price projections in a manner consistent with its representations.

312. Further, Exxon faced and continues to face greater risk associated with a two degree scenario than it represented to investors.

313. As a result, Exxon's securities are overvalued, and investors purchased or held Exxon securities at artificially inflated prices.

314. Exxon's failure to abide by its representations has also had the effect of moving the company's investments toward more GHG-intensive assets, and away from emissions-reducing investments. As a result, Exxon has brought and will bring more GHG-intensive oil and gas to market, such as its GHG-intensive oil sands assets, than it would have if it had abided by its representations. This trend is borne out by the increasing GHG intensity of Exxon's upstream assets over the past decade. In addition to having negative environmental consequences, the increased GHG intensity of Exxon's assets exposes the company to greater risk from climate change regulation than Exxon represented to investors.

CAUSES OF ACTION

FIRST CAUSE OF ACTION

(Martin Act Securities Fraud – General Business Law §§ 352 *et seq*.)

315. The State repeats and re-alleges the paragraphs above as if fully stated herein.

316. Exxon's acts and practices alleged herein, including the company's misrepresentations and omissions concerning (i) its use of proxy costs in its cost projections, including in investment decision-making, business planning, oil and gas reserves and resource base assessments, and impairment evaluations; (ii) its consistent application of proxy costs; (iii) its use of proxy costs in its demand and price projections; and (iv) the risks to its business posed

by a two degree scenario, violated General Business Law §§ 352 *et seq.*, insofar as such acts, practices, misstatements, and omissions employed deception, misrepresentations, concealment, suppression, fraud, false pretenses, and false promises, and employed devices, schemes, and artifices to defraud, regarding the issuance, distribution, exchange, sale, negotiation, or purchase of securities within or from this state.

SECOND CAUSE OF ACTION
(Persistent Fraud and Illegality – Executive Law § 63(12))

317. The State repeats and re-alleges the paragraphs above as if fully stated herein.

318. Exxon's acts and practices alleged herein, including the company's misrepresentations and omissions concerning (i) its use of proxy costs in its cost projections, including in investment decision-making, business planning, oil and gas reserves and resource base assessments, and impairment evaluations; (ii) its consistent application of proxy costs; (iii) its use of proxy costs in its demand and price projections; and (iv) the risks to its business posed by a two degree scenario, violate § 63(12) of the Executive Law, in that Exxon engaged in repeated fraudulent or illegal acts or otherwise demonstrated persistent fraud or illegality, and repeatedly violated the Martin Act in the carrying on, conducting, or transaction of business within New York.

319. Exxon's repeated fraudulent acts and persistent fraud include devices, schemes, and artifices to defraud, and deception, misrepresentations, concealment, suppression, false pretenses, and false promises.

THIRD CAUSE OF ACTION
(Actual Fraud)

320. The State repeats and re-alleges the paragraphs above as if fully stated herein.

321. As alleged herein, Exxon made material misrepresentations and omitted to disclose material facts concerning (i) its use of proxy costs in its cost projections, including in investment decision-making, business planning, oil and gas reserves and resource base assessments, and impairment evaluations; (ii) its consistent application of proxy costs; (iii) its use of proxy costs in its demand and price projections; and (iv) the risks to its business posed by a two degree scenario.

322. As alleged herein, Exxon made those misrepresentations and omitted to disclose material facts intentionally, knowingly, or recklessly.

323. Upon information and belief, investors did in fact rely on Exxon's misrepresentations and omissions in making investment decisions and such reliance was justifiable and reasonable.

324. Those misrepresentations and omissions of material facts as alleged herein constitute actual fraud under New York common law.

325. Exxon's investors suffered damages in connection with purchasing and retaining securities that were the direct and proximate result of Exxon's fraud.

FOURTH CAUSE OF ACTION
(Equitable Fraud)

326. The State repeats and re-alleges the paragraphs above as if fully stated herein.

327. As alleged herein, Exxon made material misrepresentations and omitted to disclose material facts concerning (i) its use of proxy costs in its cost projections, including in investment decision-making, business planning, oil and gas reserves and resource base assessments, and impairment evaluations; (ii) its consistent application of proxy costs; (iii) its use of proxy costs in its demand and price projections; and (iv) the risks to its business posed by a two degree scenario.

328. Upon information and belief, investors did in fact rely on Exxon's misrepresentations and omissions in making investment and other business decisions and such reliance was justifiable and reasonable.

329. Those misrepresentations and omissions of material facts as alleged herein constitute equitable fraud under New York common law.

PRAYER FOR RELIEF

WHEREFORE, the State requests that this Court grant the following relief:

A. Enjoining Exxon from engaging in any ongoing and future violations of New York law;

B. Directing a comprehensive review of Exxon's failure to apply a proxy cost consistent with its representations, and the economic and financial consequences of that failure;

C. Awarding damages caused, directly or indirectly, by the fraudulent and deceptive acts and repeated fraudulent acts and persistent illegality complained of herein, and applicable pre-judgment interest;

D. Awarding disgorgement of all amounts obtained in connection with or as a result of the violations of law alleged herein, all moneys obtained in connection with or as a result of the fraud alleged herein, and all amounts by which Exxon has been unjustly enriched in connection with or as a result of the acts, practices, misrepresentations and omissions alleged herein;

E. Awarding restitution of all funds obtained from investors in connection with or as a result of the fraudulent and deceptive acts complained of herein;

F. Awarding such other and further equitable relief as may be necessary to redress Exxon's violations of New York law and its fraudulent and deceptive acts complained of herein;

G. Awarding the State its costs and fees, including attorneys' fees as provided by law; and

H. Granting such other and further relief as may be just and proper.

Dated: October 24, 2018
New York, New York

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