

STATE OF MINNESOTA

COUNTY OF RAMSEY

DISTRICT COURT

SECOND JUDICIAL DISTRICT

Case Type: Civil (Consumer Protection)

State of Minnesota, by its Attorney General,
Keith Ellison,

Plaintiff,

vs.

American Petroleum Institute, Exxon Mobil
Corporation, ExxonMobil Oil Corporation,
Koch Industries, Inc., Flint Hills Resources
LP, Flint Hills Resources Pine Bend,

Defendants.

Court File No. _____

COMPLAINT

The State of Minnesota, by its Attorney General, Keith Ellison, for its Complaint against Defendants alleges as follows:

INTRODUCTION

1. Minnesota is in the midst of a climate-change crisis. The world has already warmed approximately two degrees Fahrenheit (F) due to human-caused climate change; Minnesota has warmed even more. Warming will continue with devastating economic and public-health consequences across the state and, in particular, disproportionately impact people living in poverty and people of color.

2. The economic devastation and public-health impacts from climate change were caused, in large part, by a campaign of deception that Defendants orchestrated and executed with disturbing success.

3. Previously unknown internal documents were recently discovered that confirm that Defendants well understood the devastating effects that their products would cause to the climate, including Minnesota, dating back to the 1970s and 1980s. But Defendants did not ever disclose to the public—or to Minnesotans—their actual knowledge that would confirm the very science they sought to undermine. Instead, Defendants, both directly and through proxies, engaged in a public-relations campaign that was not only false, but also highly effective. This campaign was intended to, and did, target and influence the public, and consumers, including in Minnesota.

4. During the period when Defendants and their proxies were deliberately misleading Minnesotans about the consequences of using their products, Defendants realized massive profits through largely unabated and expanded extraction, production, promotion, marketing, and sale of their fossil-fuel products. For example, ExxonMobil earned approximately

\$775 billion in profits during this period.¹ And by 2017, while the foundations they funded were denying legitimate climate science, Charles and David Koch of Koch Industries, Inc., were worth a combined \$84 billion.² The six largest oil and gas companies reported an excess of \$55 billion in combined profits in 2019 alone. Just these six companies have generated \$2.4 trillion in profits since 1990.³

5. And during the same period, Minnesota and Minnesotans suffered the devastating effects of climate change. Minnesota has already experienced billions of dollars of economic harm due to climate change since Defendants began their deceptive campaign, and, without serious mitigation, will continue to suffer billions of dollars of damage through midcentury.

6. If Defendants had not misled the public to pad their own pockets, Minnesota would not have already incurred such large costs because of climate change and would not be facing such dramatic future costs.

7. The State seeks to ensure that the parties who have profited from avoiding the consequences and costs of dealing with global warming and its physical, environmental, social, and economic consequences, bear the costs of those impacts, rather than Minnesota taxpayers, residents, or broader segments of the public.

8. This action seeks to hold Defendants accountable for deliberately undermining the

¹ Matthew Tyler & Jillian Ambrose, *Revealed: big oil's profits since 1990 total nearly \$2tn: BP, Shell, Chevron and Exxon accused of making huge profits while "passing the buck" on climate change*, The Guardian (Feb. 12, 2020), <https://www.theguardian.com/business/2020/feb/12/revealed-big-oil-profits-since-1990-total-nearly-2tn-bp-shell-chevron-exxon> [<https://perma.cc/GML4-AME4>].

² Christopher Leonard, *Kochland: The secret history of Koch Industries and corporate power in America*, Simon & Schuster (2019).

³ *Padding Big Oil's Profits: Companies bank trillions, taxpayers get the bill*, Taxpayers for Common Sense (Feb. 2019), <https://www.taxpayer.net/energy-natural-resources/padding-big-oils-profits/> [<https://perma.cc/2UTW-JH4B>].

science of climate change, purposefully downplaying the role that the purchase and consumption of their products played in causing climate change and the potentially catastrophic consequences of climate change, and for failing to fully inform the consumers and the public of their understanding that without swift action, it would be too late to ward off the devastation.

9. Defendants' unlawful actions in Minnesota contributed to the harm Minnesota is currently suffering, and will continue to suffer, and they must be held responsible.⁴

PARTIES

11. When reference in this Complaint is made to an act or omission of the Defendants, unless specifically attributed or otherwise stated, such references should be interpreted to mean that the officers, directors, agents, employees, or representatives of the Defendants committed or authorized such an act or omission, or failed to adequately supervise or properly control or direct their employees while engaged in the management, direction, operation, or control of the affairs of Defendants, and did so while acting within the scope of their employment or agency.

PLAINTIFF

12. **Keith Ellison, the Attorney General of the State of Minnesota**, is authorized to bring this action and seek the relief requested pursuant to his authority in Minnesota Statutes Chapter 8 to sue for injunctive relief, equitable relief, civil penalties, and damages, together with costs and disbursements including costs of investigation and reasonable attorney fees, for violations of the law of this state respecting unfair, discriminatory and other unlawful practices in business, commerce, or trade. The Attorney General also has common law authority, including

⁴ This Complaint disclaims injuries arising on federal property and those that arose from Defendants' provision of fossil fuel products to the federal government for military and national defense purposes.

parens patriae authority, to bring this action to enforce Minnesota’s laws, to vindicate the State’s sovereign and quasi-sovereign interests, and to remediate all harm arising out of—and provide full relief for—violations of Minnesota’s laws.

DEFENDANTS

AMERICAN PETROLEUM INSTITUTE

13. **Defendant American Petroleum Institute** (API) is a nonprofit corporation registered to do business in Minnesota. The American Petroleum Institute was created in 1919 to represent the American petroleum industry as a whole. With more than 600 members, API is the country’s largest oil trade association. API asserts that it “speak[s] for the oil and gas industry to the public, Congress and the Executive Branch, state governments and the media.”⁵ It claims that it “negotiate[s] with regulatory agencies, represent[s] the industry in legal proceedings, participate[s] in coalitions and work[s] in partnership with other associations to achieve [its] members’ public policy goals.”⁶ API’s purpose is to advance the individual members’ collective business interests, which includes increasing consumers’ consumption of oil and gas to Defendants’ financial benefit. Among other functions, API coordinates among members of the petroleum industry and gathers information of interest to the industry and disseminates that information to its members.

14. Member companies participate in API strategy, governance, and operation through membership dues and by contributing company officers and other personnel to API boards, committees, and task forces. ExxonMobil and/or its predecessors-in-interest is, or has been, a core API member at times relevant to this litigation and has had executives serving on the

⁵ *About API*, American Petroleum Institute, <https://www.api.org/about> [<https://perma.cc/XS58-GKUY>].

⁶ *Id.*

API Executive Committee and as API Chairman, which is akin to serving as a corporate officer. For example, ExxonMobil's CEO served on API's Executive Committee almost continuously for over 20 years (1991, 1996-97, 2001, and 2005-2016).

15. Relevant information was shared among API, its members, and their predecessors-in-interest through: (a) distribution of information held by API to its members; and (b) participation of officers and other personnel of fossil-fuel companies on API boards, committees, and task forces. API has been a member of at least five organizations that have promoted disinformation about fossil-fuel products to consumers, including the Global Climate Coalition, Partnership for a Better Energy Future, Coalition for American Jobs, Alliance for Energy and Economic Growth, and Alliance for Climate Strategies. These front groups were formed to provide climate disinformation and advocacy from a seemingly objective source, when, in fact, they were financed and controlled by ExxonMobil and other sellers of fossil-fuel products. Defendants benefited from the spread of this disinformation.

16. API's stated mission includes "influenc[ing] public policy in support of a strong, viable U.S. oil and natural gas industry," which includes increasing consumers' consumption of oil and gas to Defendants' financial benefit. Through Executive Committee roles, API board membership, and/or budgetary funding of API, ExxonMobil and other fossil-fuel companies collectively wielded control over the policies and trade practices of API. In addition, ExxonMobil and other fossil-fuel companies directly supervised and participated in API's misleading messaging regarding climate change. API and its members disseminated misleading messaging regarding climate change to further their shared goal of influencing consumer demand, including in Minnesota, for fossil-fuel products through long-term advertising and communications campaigns centered on climate-change denialism. These campaigns were

directed nationally and in Minnesota, targeting Minnesota consumers. API continues to participate and/or direct misleading campaigns about the dangers of fossil fuels intended to reach consumers, policy makers, and others, including in Minnesota.

EXXON ENTITIES – EXXON MOBIL CORPORATION AND EXXONMOBIL OIL CORPORATION

17. **Defendant Exxon Mobil Corporation** is a multinational, vertically integrated energy and chemicals company incorporated in the State of New Jersey with a principal place of business at 5959 Las Colinas Boulevard, Irving, Texas, 75039. In 2018, ExxonMobil reported nearly \$21 billion in profits.⁷

18. Exxon Mobil Corporation is the ultimate parent company for numerous subsidiaries, and is liable for the unlawful actions of those subsidiaries. Exxon Mobil Corporation is the corporation formed on November 30, 1999 by the merger of Exxon (formerly the Standard Oil Company of New Jersey) and Mobil (formerly the Standard Oil Company of New York). Exxon Mobil Corporation was formerly known as, did or does business as, and/or is the successor in liability to ExxonMobil Refining and Supply Company, Exxon Chemical U.S.A., ExxonMobil Chemical Corporation, ExxonMobil Chemical U.S.A., ExxonMobil Refining & Supply Corporation, Exxon Company, U.S.A., Exxon Corporation, and Mobil Corporation.

19. **Defendant ExxonMobil Oil Corporation** is a wholly owned subsidiary of Exxon Mobil Corporation, acts on Exxon Mobil Corporation's behalf, and is subject to Exxon Mobil Corporation's control. ExxonMobil Oil Corporation is incorporated in the state of New York with its principal place of business at 5959 Las Colinas Boulevard, Irving, Texas, 75039.

⁷ 2018 *Financial & Operating Review*, ExxonMobil at 89 (hereinafter Exxon Annual Report).

ExxonMobil Oil Corporation was formerly known as, did or does business as, and/or is the successor in liability to Mobil Oil Corporation.

20. Defendants Exxon Mobil Corporation and ExxonMobil Oil Corporation are liable for the unlawful actions of Exxon, Mobil, and other corporate ancestors. Exxon Mobil Corporation has provided significant funding to ExxonMobil Foundation in furtherance of the unlawful actions described in this Complaint.

21. Exxon Mobil Corporation controls and has controlled companywide decisions about the quantity and extent of fossil-fuel production and sales, including those of its subsidiaries. Exxon Mobil Corporation recently represented that its success, including its “ability to mitigate risk and provide attractive returns to shareholders, depends on [its] ability to successfully manage [its] overall portfolio, including diversification among types and locations of [its] projects.”⁸ Exxon Mobil Corporation determines whether and to what extent its holdings market, produce, and/or distribute fossil-fuel products.

22. Exxon Mobil Corporation controls and has controlled companywide decisions related to marketing, advertising, climate change and greenhouse-gas emissions from its fossil-fuel products, and communications strategies concerning climate change and the link between fossil-fuel use and impacts on the environment and communities from climate change, including those of its subsidiaries. Exxon Mobil Corporation’s Board, or an individual/sub-set of the Board, or another committee appointed by the Board, holds the highest level of direct responsibility for climate-change policy within the company. Exxon Mobil Corporation’s Chairman of the Board and Chief Executive Officer, its President and the other members of its Management Committee are actively engaged in discussions relating to greenhouse-gas

⁸ Exxon Mobil Corporation, *Form 10-K* (2017).

emissions and the risks of climate change on an ongoing basis. Exxon Mobil Corporation requires its subsidiaries to provide an estimate of greenhouse-gas-related emissions costs in their economic projections when seeking funding for capital investments.

23. Exxon Mobil Corporation and ExxonMobil Oil Corporation (a wholly-owned subsidiary of Exxon Mobil Corporation) are registered to do business in Minnesota as foreign business corporations and maintain a registered agent for service of process at 2345 Rice Street, Suite 230, Roseville, Minnesota, 55113. ExxonMobil Oil Corporation is a licensed distributor of petroleum products in Minnesota.⁹

24. Exxon Mobil Corporation, ExxonMobil Oil Corporation and their subsidiaries explore, develop, and produce oil and gas worldwide. Exxon Mobil Corporation is one of the largest integrated refiners and marketers of fuels and lube basestocks, as well as the leading manufacturer of petroleum products and finished lubricants.¹⁰

25. As used in this Complaint, “Exxon” or “ExxonMobil” collectively refers to Defendants Exxon Mobil Corporation and ExxonMobil Oil Corporation and their predecessors, successors, parents, subsidiaries, affiliates, and divisions.

26. ExxonMobil has and continues to tortiously market, advertise, promote, and supply its fossil-fuel products in Minnesota, with knowledge that those products have caused and will continue to cause climate-crisis-related injuries in Minnesota, including the State’s injuries. Exxon’s statements in and outside of Minnesota made in furtherance of its campaign of deception and denial, and its chronic failure to warn consumers of global-warming-related

⁹ Minn. Dept. of Revenue, *Petroleum Licensed Distributors*, <http://www.revenue.state.mn.us/petroleum-licensed-distributors-information> (follow “licensed distributors”) (hereinafter Minnesota Petroleum Distributors).

¹⁰ Exxon Annual Report at 27.

hazards when it marketed, advertised, and sold its products both in and outside of Minnesota, were intended to conceal and mislead the public, including the State and its residents, about the serious adverse consequences from continued use of ExxonMobil's products. That conduct was intended to reach and influence the State, as well as its residents, to continue unabated use of Defendants' fossil-fuel products in and outside Minnesota, resulting in the State's injuries.

27. A substantial portion of ExxonMobil's fossil-fuel products are or have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Minnesota, from which ExxonMobil derives and has derived substantial revenue. For example, ExxonMobil directly and through its subsidiaries and/or predecessors-in-interest supplied substantial quantities of fossil-fuel products, including, but not limited to, crude oil, to Minnesota during the period relevant to this litigation. ExxonMobil conducts and controls, either directly or through franchise agreements, retail fossil-fuel sales at over 80 gas station locations throughout Minnesota, at which it promotes, markets, and advertises its fossil-fuel products under its Exxon and/or Mobil brand names. During the period relevant to this Complaint, ExxonMobil sold a substantial percentage of all retail gasoline in Minnesota. Additionally, ExxonMobil distributes, markets, promotes, and provides its Mobil 1 products for sale at well over 150 locations throughout the state of Minnesota, including, but not limited to, auto body and repair shops, Costco, Sam's Club, and Walmart locations. ExxonMobil historically directed its fossil-fuel product advertising, marketing, and promotional campaigns to Minnesotans, including maps of Minnesota identifying the locations of its service stations. ExxonMobil continues to market and advertise its fossil-fuel products in Minnesota to Minnesota residents by maintaining an interactive website available to prospective customers by which it directs Minnesota residents to ExxonMobil's nearby retail service stations and lubricant distributors. Further, ExxonMobil

promotes its products in Minnesota by regularly updating and actively promoting its mobile device application, “Exxon Mobil Rewards+,” throughout the state of Minnesota, encouraging Minnesota users to consume fuel at its stations in Minnesota in exchange for rewards on every fuel purchase.

KOCH ENTITIES - KOCH INDUSTRIES, INC., FLINT HILLS RESOURCES LP, AND FLINT HILLS RESOURCES PINE BEND, LLC

28. **Defendant Koch Industries, Inc.** (Koch) is an American multinational corporation based in Wichita, Kansas. Koch is the second largest private company in the United States and earned more than \$113 billion in revenue in 2019.¹¹

29. Koch is the ultimate parent company for numerous subsidiaries involved in the manufacturing, refining, and distribution of petroleum products. Koch is liable for the unlawful actions of those subsidiaries.

30. Koch also supports numerous foundations including the Charles G. Koch Charitable Foundation, the David H. Koch Charitable Foundation, the Koch Institute, and the Claude R. Lambe Charitable Foundation. Koch expects the foundations that it supports to fund groups that further its financial interests. Koch constructively controls how the foundations that it supports direct their philanthropic activities.

31. Koch, along with many of its subsidiaries and affiliates, is registered to do business in Minnesota. **Defendants Flint Hills Resources LP and Flint Hills Resources Pine Bend, LLC** (both subsidiaries of Koch) are licensed distributors of petroleum products in Minnesota.¹²

¹¹ *America’s Largest Private Companies, 2019 Ranking*, Forbes, <https://www.forbes.com/largest-private-companies/list/#tab:rank> [<https://perma.cc/4PXZ-L7N4>].

¹² Minnesota Petroleum Distributors.

32. Koch subsidiaries (Koch Pipe Lines and Minnesota Pipe Line Company LLC) import crude oil from Canada to a terminal in Clearbrook, Minnesota, which is owned and operated by Koch. From there, the oil is piped to the Flint Hills Resources Pine Bend Refinery via other Koch-Industries-owned pipelines.¹³

33. Koch's Flint Hills Resources' Pine Bend Refinery is located in Minnesota and can process 392,000 barrels of crude oil per day. This refinery handles one quarter of all Canadian tar sands crude entering the U.S. The Pine Bend Refinery supplies about half of Minnesota's motor fuel and 40 percent of Wisconsin's, as well as the bulk of the jet fuel for the Minneapolis St. Paul International Airport.¹⁴

34. As used in this Complaint, "Koch" collectively refers to Defendants Koch Industries, Inc., Flint Hills Resources, LP, and Flint Hills Resources Pine Bend, LLC, as well as their predecessors, successors, parents, subsidiaries, affiliates, and divisions.

35. Defendants direct and have directed substantial fossil-fuel-related business in Minnesota and throughout the United States. A substantial portion of Defendants' fossil-fuel products are or have been refined, transported, traded, distributed, marketed, promoted, manufactured, sold, and/or consumed in Minnesota, from which Defendants have derived significant revenue.

36. Minnesota plays an outsized role in America's oil market:

As a state with no indigenous oil supply situated in a relatively remote and sparsely populated region, Minnesota would not be expected to be more than a minor component of North America's oil supply system. However, the state's strategic location between the oilfields of western Canada and North Dakota and the refining

¹³ *Minnesota's Petroleum Infrastructure: Pipelines, Refineries, Terminals*, Research Department Minnesota House of Representatives (Oct. 2018), <https://www.house.leg.state.mn.us/hrd/pubs/petinfra.pdf> [<https://perma.cc/Z3GK-MTRX>] (hereinafter *Minnesota's Petroleum Infrastructure*).

¹⁴ *Id.*

centers of the Midwest, the Gulf of Mexico, and the eastern coasts of the United States and Canada, has greatly magnified the role it plays in meeting America's demand for petroleum products.¹⁵

37. Flint Hills Resources' Pine Bend Refinery refines the majority of the motor gasoline consumed in Minnesota. Koch earns significant profits from the Pine Bend refinery.

38. Approximately 85% of the crude oil processed by the Pine Bend Refinery originates in Alberta, Canada from the Alberta tar sands. The rest originates in North Dakota.

39. The Alberta tar sands resource is being developed, in part, by ExxonMobil and Koch. ExxonMobil and Koch earn a portion of their substantial profits from the development of Canadian oil that is eventually refined and consumed in Minnesota. In 2014, Koch was reported to be the largest non-Canadian leaseholder of Canada's oil sands.¹⁶

40. The North Dakota Bakken oil resource is being developed, in part, by ExxonMobil. ExxonMobil earns a portion of its substantial profits from the development of North Dakota oil that is eventually refined and consumed in Minnesota.

41. Koch owns and operates portions of the pipeline system in Minnesota delivering crude oil to the Pine Bend Refinery. A portion of Koch's profits are from the ownership and operation of this pipeline system.

AGENCY

42. At all times herein mentioned, each of the Defendants was the agent, servant, partner, aider and abettor, co-conspirator, and/or joint venturer of each of the remaining Defendants herein and was at all times operating and acting within the purpose and scope of said agency, service, employment, partnership, conspiracy, and joint venture and rendered substantial

¹⁵ *Id.*

¹⁶ Steven Mufson & Juliet Eilperin, *The biggest foreign lease holder in Canada's oil sands isn't Exxon Mobil or Chevron. It's the Koch brothers*, Washington Post (Mar. 20, 2014).

assistance and encouragement to the other Defendants, knowing that their conduct was wrongful and/or constituted a breach of duty.

JURISDICTION AND VENUE

43. This Court has jurisdiction over the subject matter of this action and to grant the relief requested pursuant to Minnesota Statutes sections 484.01, 325F.67, 325F.69 and 325D.44, and common law.

44. This Court has personal jurisdiction over Defendants pursuant to the Minnesota long-arm statute, Minnesota Statute section 543.19, because Defendants transact business and cause harm in Minnesota, and the cause(s) of action arises out of and relates to Defendants' business here.

45. Venue lies in this Court pursuant to Minnesota Statute section 542.09.

FACTS

THE CAUSES AND EFFECTS OF CLIMATE CHANGE

46. Human-caused warming of the Earth is unequivocal. As a result, the atmosphere and oceans are warming, sea level is rising, snow and ice cover is diminishing, oceans are acidifying, and hydrologic systems have been altered, among other environmental changes.

47. The mechanism by which human activity causes global warming and climate change is well established: ocean and atmospheric warming is overwhelmingly caused by anthropogenic greenhouse-gas emissions.¹⁷

48. Greenhouse gases are largely byproducts of humans combusting fossil fuels to produce energy and using fossil fuels to create petrochemical products.

¹⁷ As used in this Complaint, the term “greenhouse gases” refers collectively to carbon dioxide (CO₂), methane, and nitrous oxide. Where a cited source refers to a specific gas or gases, or when a process relates only to a specific gas or gases, this Complaint refers to each gas by name.

49. Prior to World War II, most anthropogenic CO₂ emissions were caused by land-use practices, such as forestry and agriculture, which altered the ability of the land and global biosphere to absorb CO₂ from the atmosphere; the impacts of such activities on Earth's climate were relatively minor. Since that time, however, both the annual rate and total volume of anthropogenic CO₂ emissions have increased enormously following the advent of major uses of oil, gas, and coal.

50. Defendants sell—or are in the business of promoting and protecting the sales of—fossil-fuel products, including in Minnesota.

51. Fossil-fuel products release greenhouse gases when consumed. More than half of all industrial emissions of CO₂ have occurred since 1988.¹⁸

52. Because of the increased burning of fossil-fuel products, concentrations of greenhouse gases in the atmosphere are now at a level unprecedented in at least 3 million years.¹⁹

53. As greenhouse gases accumulate in the atmosphere, the Earth radiates less energy back to space. This accumulation and associated disruption of the Earth's energy balance have myriad environmental and physical consequences.

54. Without Defendants' exacerbation of global warming caused by their conduct as alleged herein, the current physical and environmental changes caused by global warming would

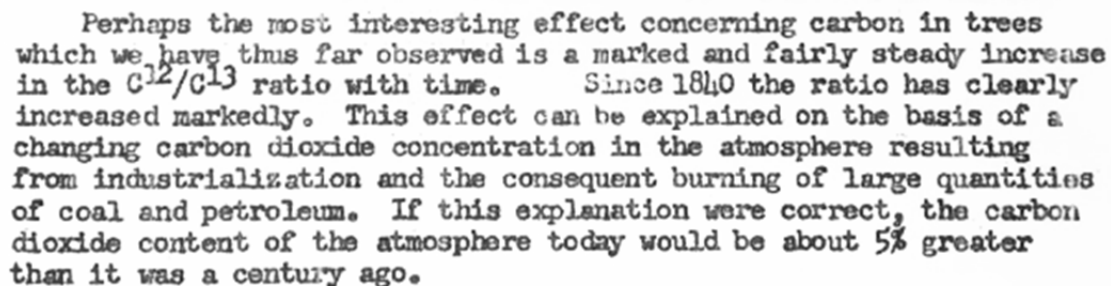
¹⁸ Peter C. Frumhoff et al., *The climate responsibilities of industrial carbon producers*, *Climatic Change* 132:157-171 (2015) (hereinafter Frumhoff 2015).

¹⁹ *More CO₂ than ever before in 3 million years, shows unprecedented computer simulation*, *Science Daily* (Apr. 3, 2019); see also *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 4 (2014) (hereinafter IPCC 5th Assessment).

have been far less than those observed to date. Similarly, effects that will occur in the future would also be far less.²⁰

BY THE EARLY 1980S, DEFENDANTS KNEW THAT THEIR PRODUCTS CAUSED CLIMATE CHANGE, THAT CLIMATE CHANGE WOULD HAVE SEVERE ENVIRONMENTAL AND SOCIAL CONSEQUENCES, AND THAT URGENT ACTION WAS NECESSARY

55. In the middle of the 20th century, scientists began to understand that burning fossil fuels releases additional greenhouse gases, driving up the atmospheric concentration. For example, in 1954, scientists from the California Institute of Technology submitted a research proposal to API to study the changing carbon ratio in the atmosphere and whether it could be explained by “industrialization and the consequent burning of large quantities of coal and petroleum.”²¹



Perhaps the most interesting effect concerning carbon in trees which we have thus far observed is a marked and fairly steady increase in the C¹²/C¹³ ratio with time. Since 1840 the ratio has clearly increased markedly. This effect can be explained on the basis of a changing carbon dioxide concentration in the atmosphere resulting from industrialization and the consequent burning of large quantities of coal and petroleum. If this explanation were correct, the carbon dioxide content of the atmosphere today would be about 5% greater than it was a century ago.

56. During the 1950s, scientists were also beginning to make the connection between the growing concentration of greenhouse gases in the atmosphere and a changing climate. For example, in 1957, H. R. Brannon of Humble Oil (predecessor-in-interest to ExxonMobil)

²⁰ Peter U. Clark, et al., *Consequences of Twenty-First-Century Policy for Multi-Millennial Climate and Sea-Level Change*, *Nature Climate Change* 6, 365 (“Our modelling suggests that the human carbon footprint of about [470 billion tons] by 2000 . . . has already committed Earth to a [global mean sea level] rise of ~1.7m (range of 1.2 to 2.2 m).”).

²¹ Benjamin Franta, *Early oil industry knowledge of CO₂ and global warming*, *Nature Climate Change* (2018) (hereinafter Franta 2018).

measured an increase in atmospheric CO₂, and communicated this information to API. Brannon published his results in the scientific literature, which was available to Defendants and/or their predecessors-in-interest.²²

57. In 1959, physicist Edward Teller warned petroleum industry leaders, including high-level representatives of Defendants, of the potential for global temperature increases and resultant sea level rise at an event organized by API.²³

58. This awareness that began in the 1950s continued into the 1960s. For example, in 1965, President Lyndon Johnson's Science Advisory Committee (SAC) issued a 110-page report entitled *Restoring the Quality of our Environment* that included an Appendix on "Atmospheric Carbon Dioxide" explaining, in part, how fossil-fuel combustion could lead to changes in the CO₂ concentration of the atmosphere. This report noted that burning of fossil fuels "may be sufficient to produce measurable and perhaps marked changes in climate" by the year 2000.²⁴

59. The contents of the SAC report were not widely reported to the general public. Only a limited number of scientists and government officials at this time were familiar with the contents of the report. But API members heard about the SAC report. At their 1965 annual meeting, then-API-president Frank Ikard gave the following address:

This report unquestionably will fan emotions, raise fears, and bring demands for action. The substance of the report is that there is still time to save the world's peoples from the catastrophic consequence of pollution, but time is running out.

²² H. R. Brannon, Jr., et al., *Radiocarbon evidence on the dilution of atmospheric and oceanic carbon by carbon from fossil fuels*, American Geophysical Union Transactions 38, 643-50 (1957).

²³ See Franta 2018 (citing E. Teller, *Energy patterns of the future*, Energy and Man: A Symposium 53-72 (1960)).

²⁴ Environmental Pollution Panel of the President's Science Advisory Committee, *Restoring the Quality of Our Environment*, at 126-27 (1965).

One of the most important predictions of the report is that carbon dioxide is being added to the earth's atmosphere by the burning of coal, oil, and natural gas at such a rate that by the year 2000 the heat balance will be so modified as possibly to cause marked changes in climate beyond local or even national efforts. The report further states, and I quote: ". . . the pollution from internal combustion engines is so serious, and is growing so fast, that an alternative nonpolluting means of powering automobiles, buses, and trucks is likely to become a national necessity."²⁵

60. Thus, by 1965, Defendants and their predecessors-in-interest were aware that the scientific community had found that fossil-fuel products, if used profligately, would cause global warming by the end of the century, and that such global warming would have wide-ranging and costly consequences.

61. In 1968, API received a report from the Stanford Research Institute (SRI), which it had hired to assess the state of research on environmental pollutants, including CO₂.²⁶ The assessment endorsed the findings of President Johnson's SAC from three years prior, stating, "Significant temperature changes are almost certain to occur by the year 2000, and . . . there seems to be no doubt that the potential damage to our environment could be severe." The scientists warned of "melting of the Antarctic ice cap" and informed API that "[p]ast and present studies of CO₂ are detailed and seem to explain adequately the present state of CO₂ in the atmosphere." What was missing, the scientists said, was work on "air pollution technology and . . . systems in which CO₂ emissions would be brought under control."²⁷

62. In 1969, SRI delivered a supplemental report on air pollution to API, projecting with alarming particularity that atmospheric CO₂ concentrations would reach 370 ppm by

²⁵ Frank Ikard, *Meeting the Challenges of 1966*, 13 (1965), <http://www.climatefiles.com/trade-group/american-petroleum-institute/1965-api-president-meeting-the-challenges-of-1966>.

²⁶ Elmer Robinson & R.C. Robbins, *Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants*, Stanford Research Institute (Feb. 1968).

²⁷ *Id.*

2000²⁸—almost exactly what it turned out to be (369 ppm).²⁹ The report explicitly connected the rise in CO₂ levels to the combustion of fossil fuels, finding it “unlikely that the observed rise in atmospheric CO₂ has been due to changes in the biosphere.”

63. By virtue of their membership and participation in API at that time, ExxonMobil received or should have received the SRI reports and was on notice of their conclusions.

64. Recently uncovered internal documents from ExxonMobil and other fossil-fuel companies show that industry scientists became instrumental in researching the greenhouse effect on the heels of this early science. For example, in 1969, a research project that involved the Esso Production Research Company (now ExxonMobil) acknowledged the possible connection between hurricane intensity and a warming climate.³⁰

65. In 1972, API members received a status report on all environmental research projects funded by API. The report summarized the 1968 SRI report describing the impact of fossil-fuel products, including Defendants’, on the environment, including global warming and attendant consequences. ExxonMobil’s predecessors-in-interest that received this report include, but were not limited to: Esso Research, Ethyl (formerly affiliated with Esso, which was subsumed by ExxonMobil), Getty, Humble Standard of New Jersey, Mobil, Skelly, and Colonial Pipeline.³¹

²⁸ Elmer Robinson & R.C. Robbins, *Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants Supplement*, Stanford Research Institute (June 1969).

²⁹ NASA Goddard Institute for Space Studies, *Global Mean CO₂ Mixing Ratios (ppm): Observations*, <https://data.giss.nasa.gov/modelforce/ghgases/Fig1A.ext.txt>.

³⁰ Center for International Environmental Law, *Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil Accountable for the Climate Crisis*, 2017 at 10 (hereinafter *Smoke and Fumes*) (citing M.M. Patterson (Shell Development Co.), *An Ocean Data Gathering Program for the Gulf of Mexico*, Society of Petroleum Engineers (1969)).

³¹ American Petroleum Institute, *Environmental Research, A Status Report*, Committee for Air and Water Conservation (Jan. 1972).

66. According to recently uncovered documents, by the 1970s, executives were being urged by their own scientists during this time to consider the industry's role in advancing the science of and solutions to climate change. For example, in 1978, Exxon (now ExxonMobil) scientist Harold Weinberg proposed to colleagues that Exxon become the leader in trying to define and counteract the "CO₂ problem."³²

67. The need to act quickly was also becoming clear during this period. In 1977, Exxon scientist James Black communicated to the Exxon Corporation Management Committee that "[p]resent thinking holds that man has a time window of five to ten years before the need for hard decisions regarding changes in energy strategies might become critical."³³ Black also reported that "current scientific opinion overwhelmingly favors attributing atmospheric carbon dioxide increase to fossil fuel consumption," and that doubling atmospheric CO₂, according to the best climate model available, would "produce a mean temperature increase of about 2° C[elsius] to 3° C[elsius] over most of the earth," with double to triple as much warming at the poles. And in 1982 it was pointed out to Exxon management that "once the effects [of global warming] are measurable, they might not be reversible."³⁴

68. Throughout the 1970s, it was becoming increasingly clear that climate change could have serious implications for Exxon's business model. In 1977, Exxon scientist Henry Shaw circulated a memo to colleagues pointing out that the climatic effects of rising CO₂ "may

³² H.N. Weinberg, *Interoffice Correspondence to E.J. Gornowski: CO₂* (Mar. 7, 1978), <http://www.climatefiles.com/exxonmobil/1978-exxon-memo-proposing-a-worldwide-effort-to-answer-co2-problem>.

³³ James F. Black, *Interoffice Correspondence to Frank G. Turpin: The Greenhouse Effect* (June 6, 1978), <http://www.climatefiles.com/exxonmobil/1978-exxon-memo-on-greenhouse-effect-for-exxon-corporation-management-committee>.

³⁴ M.B. Glaser, *Memorandum to Distribution List: CO₂ "Greenhouse" Effect* (Nov. 12, 1982), <http://www.climatefiles.com/exxonmobil/1982-memo-to-exxon-management-about-co2-greenhouse-effect/> (hereinafter Glaser Memo 1982).

be the primary limiting factor on energy production from fossil fuels over the next few centuries.”³⁵ In a 1979 memorandum to Weinberg, Shaw wrote: “It behooves us to start a very aggressive defensive program in the indicated areas of atmospheric science and climate because there is a good probability that legislation affecting our business will be passed.”³⁶ And a 1979 letter from Exxon’s director of research, Edward David, to senior vice president George T. Piercy states that Exxon’s ongoing research “could well influence Exxon’s view about the long-term attractiveness of coal and synthetics relative to nuclear and solar energy.”³⁷

69. An Exxon internal document from 1979 summarizes the state of the science at that time, reaching the damning conclusion that the present trend of fossil-fuel consumption would cause dramatic effects before 2050:³⁸

³⁵ Henry Shaw, *Interoffice Correspondence to John W. Harrison: Environmental Effects of Carbon Dioxide* (Oct. 31, 1977), <http://www.climatefiles.com/exxonmobil/1977-exxon-memo-about-doe-environmental-advisory-committee-subgroup-studying-co2-effects>.

³⁶ Henry Shaw, *Interoffice Correspondence to H.N. Weinberg: Research in Atmospheric Science* (Nov. 19, 1979), <http://www.climatefiles.com/exxonmobil/1979-exxon-memo-on-atmospheric-science-research-to-influence-legislation>.

³⁷ Edward David, *Proprietary Memorandum to George Piercy* (Nov. 9, 1979), <https://insideclimatenews.org/documents/letters-senior-vps-1980>.

³⁸ R.L. Mastracchio & L.E. Hill, *Proprietary Memorandum to R. L. Hirsch: Controlling Atmospheric CO₂* (Oct. 16, 1979), <http://www.climatefiles.com/exxonmobil/1979-exxon-memo-on-potential-impact-of-fossil-fuel-combustion>.

CONTROLLING THE CO₂ CONCENTRATION IN THE ATMOSPHERE

The CO₂ concentration in the atmosphere has increased since the beginning of the world industrialization. It is now 15% greater than it was in 1850 and the rate of CO₂ release from anthropogenic sources appears to be doubling every 15 years. The most widely held theory is that:

- The increase is due to fossil fuel combustion
- Increasing CO₂ concentration will cause a warming of the earth's surface
- The present trend of fossil fuel consumption will cause dramatic environmental effects before the year 2050.

70. In 1979, API and its members, including Defendants, convened a Task Force to monitor and share cutting edge climate research among the oil industry. The group was initially called the CO₂ and Climate Task Force, but in 1980 changed its name to the Climate and Energy Task Force (hereinafter referred to as "API CO₂ Task Force"). Membership included senior scientists and engineers from nearly every major U.S. and multinational oil-and-gas company, including Exxon and Mobil (ExxonMobil), among others. The Task Force was charged with monitoring government and academic research, evaluating the implications of emerging science for the petroleum and gas industries, and identifying where reductions in greenhouse-gas emissions from Defendants' fossil-fuel products could be made.

71. In 1979, API prepared a background paper on CO₂ and climate for the API CO₂ Task Force, stating that CO₂ concentrations were rising steadily in the atmosphere, and predicting when the first clear effects of global warming might be detected. The API reported to its members that although global warming would occur, it would likely go undetected until

approximately the year 2000, because, the API believed, its effects were being temporarily masked by a natural cooling trend. However, this cooling trend, the API warned its members, would reverse around 1990, adding to the warming caused by CO₂.

72. In 1980, the API CO₂ Task Force invited Dr. John Laurmann, “a recognized expert in the field of CO₂ and climate,” to present to its members.³⁹ The meeting lasted for seven hours and included a “complete technical discussion” of global warming caused by fossil fuels, including “the scientific basis and technical evidence of CO₂ buildup, impact on society, methods of modeling and their consequences, uncertainties, policy implications, and conclusions that can be drawn from present knowledge.” Representatives from Exxon and API were present, and the minutes of the meeting were distributed to the entire API CO₂ Task Force. Laurmann informed the Task Force of the “scientific consensus on the potential for large future climatic response to increased CO₂ levels” and that there was “strong empirical evidence that [the carbon dioxide] rise [was] caused by anthropogenic release of CO₂, mainly from fossil fuel burning.” Unless fossil-fuel production and use were controlled, atmospheric CO₂ would be twice preindustrial levels by 2038, with “likely impacts” along the following trajectory:

*** LIKELY IMPACTS:**

1° C RISE (2005): BARELY NOTICEABLE

2.5° C RISE (2038): MAJOR ECONOMIC CONSEQUENCES, STRONG REGIONAL DEPENDENCE

5° C RISE (2067): GLOBALLY CATASTROPHIC EFFECTS

³⁹ Jimmie J. Nelson, American Petroleum Institute, *The CO₂ Problem; Addressing Research Agenda Development* (Mar. 18, 1980), <https://www.industrydocuments.ucsf.edu/docs/gffl0228>.

73. The 1980s revealed an established consensus among scientists. A 1980 memorandum from the Exxon Research and Engineering Company states that “[t]here is *little doubt* that these observations indicate a growth in atmospheric CO₂. It is also believed that the growth of atmospheric CO₂ has been occurring since the middle of the past century i.e., coincident with the start of the Industrial Revolution.”⁴⁰ And a 1982 internal Exxon document (the “Cohen/Levine Memo”) explicitly declares that the science was “unanimous” and that climate change would “bring about significant changes in the earth’s climate”:

[O]ver the past several years *a clear scientific consensus has emerged* regarding the expected climatic effects of increased atmospheric CO₂. The *consensus* is that a doubling of atmospheric CO₂ from its pre-industrial revolution value would result in an average global temperature rise of $(3.0 \pm 1.5)^\circ \text{C}$ There is *unanimous agreement in the scientific community* that a temperature increase of this magnitude would bring about significant changes in the earth’s climate, including rainfall distribution and alterations in the biosphere.⁴¹

74. In 1980, Imperial Oil Limited (a Canadian ExxonMobil subsidiary) reported to managers and environmental staff at multiple affiliated Esso and Exxon companies that there was “no doubt” that fossil fuels were aggravating the build-up of CO₂ in the atmosphere.⁴² Imperial noted that “Technology exists to remove CO₂ from stack gases but removal of only 50% of the CO₂ would double the cost of power generation.”

75. In addition to the recognition of a scientific consensus about climate-change science, the 1980s brought increasingly dire warnings about the potential consequences of its

⁴⁰ Henry Shaw, *General 7A Memorandum to T.K. Kett: CO₂ Greenhouse Effect* (Dec. 18, 1980) (emphasis added), <http://www.climatefiles.com/exxonmobil/1980-exxon-memo-on-the-co2-greenhouse-effect-and-current-programs-studying-the-issue>.

⁴¹ Roger Cohen & Duane Levine, *Memorandum to A.M. Natkin* (Aug. 25, 1982) (emphasis added), <http://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modeling-and-co2-greenhouse-effect-research>.

⁴² Imperial Oil Ltd, *Review of Environmental Protection Activities for 1978-1979* (Aug. 6, 1980), <http://www.documentcloud.org/documents/2827784-1980-Imperial-Oil-Review-of-Environmental.html#document/p2>.

impact. For example, in 1981, Roger Cohen, an Exxon researcher, circulated a memorandum in which he disagreed that climate change would be “well short of catastrophic”.⁴³

GENERAL - 1941-19 INTER-OFFICE CORRESPONDENCE		DATE August 18, 1981
TO	W. Glass	REFERENCE
FROM	R. W. Cohen	SUBJECT

I have looked over the draft of the EED reply to the request from O'Loughlin. The only real problem I have is with the second clause of the last sentence in the first paragraph: "but changes of a magnitude well short of catastrophic..." I think that this statement may be too reassuring. Whereas I can agree with the statement that our best guess is that observable effects in the year 2030 are likely to be "well short of catastrophic", it is distinctly possible that the CPD scenario will later produce effects which will indeed be catastrophic (at least for a substantial fraction of the earth's population). This is because the global ecosystem in 2030 might still be in a transient, headed for much more significant effects after time lags perhaps of the order of decades. If this indeed turns out to be case, it is very likely that we will unambiguously recognize the threat by the year 2000 because of advances in climate modeling and the beginning of real experimental confirmation of the CO₂ effect. The effects of such a recognition on subsequent fossil fuel combustion are unpredictable, but one can say that predictions based only on our knowledge of availability and economics become hazardous.

I would feel more comfortable if the first paragraph concluded with a statement to the effect that future developments in global data gathering and analysis, along with advances in climate modeling, may provide strong evidence for a delayed CO₂ effect of a truly substantial magnitude, a possibility which increases the uncertainty surrounding the post-2000 CPD scenario.

76. In 1982, Exxon's Environmental Affairs Manager distributed a primer on climate change to a "wide circulation [of] Exxon management . . . intended to familiarize Exxon

⁴³ Roger Cohen, *Interoffice Correspondence to W. Glass* (Aug. 18, 1981) <http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emission-consequences-of-fossil-fuel-consumption>.

personnel with the subject.”⁴⁴ The primer was “restricted to Exxon personnel and not to be distributed externally.” The primer warned of “uneven global distribution of increased rainfall and increased evaporation,” that “disturbances in the existing global water distribution balance would have dramatic impact on soil moisture, and in turn, on agriculture,” and that the American Midwest would dry out. In addition to effects on global agriculture, the report stated, “there are some potentially catastrophic effects that must be considered.” Melting of the Antarctic ice sheet could result in global sea level rise of five meters, which would “cause flooding on much of the U.S. East Coast, including the State of Florida and Washington, D.C.” Weeds and pests would “tend to thrive with increasing global temperature.” The primer warned of “positive feedback mechanisms” in polar regions, which could accelerate global warming, such as deposits of peat “containing large reservoirs of organic carbon” becoming “exposed to oxidation” and releasing their carbon into the atmosphere. “Similarly,” the primer warned, “thawing might also release large quantities of carbon currently sequestered as methane hydrates” on the sea floor. “All biological systems would be affected,” and “the most severe economic effects could be on agriculture.” The report recommended studying “soil erosion, salinization, or the collapse of irrigation systems” in order to understand how society might be affected and might respond to global warming, as well as “[h]ealth effects” and “stress associated with climate related famine or migration[.]” The report estimated that undertaking “[s]ome adaptive measures” (not all of them) would cost “a few percent of the gross national product estimated in the middle of the next century.”⁴⁵ To avoid such impacts, the report discussed an analysis from the Massachusetts Institute of Technology and Oak Ridge National Laboratory, which studied energy alternatives

⁴⁴ Glaser Memo 1982.

⁴⁵ For 2018 Gross National Product, *see* Federal Reserve Bank of St. Louis, *Gross National Product*, <https://fred.stlouisfed.org/series/GNPA>.

and requirements for introducing them into widespread use, and which recommended that “vigorous development of non-fossil energy sources be initiated as soon as possible.”⁴⁶ The primer also noted that other greenhouse gases related to fossil-fuel production, such as methane, could contribute significantly to global warming, and that concerns over CO₂ could be reduced if fossil-fuel use were decreased due to “high price, scarcity, [or] unavailability.” “Mitigation of the ‘greenhouse effect’ would require major reductions in fossil fuel combustion,” the primer stated. The primer was widely distributed to Exxon leadership.

77. Professor Martin Hoffert, a former New York University physicist who researched climate change as an Exxon consultant in the 1980s, later stated the following in sworn testimony before Congress:

[O]ur research [at Exxon] was consistent with findings of the United Nations Intergovernmental Panel on Climate Change on human impacts of fossil fuel burning, which is that they are increasingly having a perceptible influence on Earth’s climate. . . . If anything, adverse climate change from elevated CO₂ is proceeding faster than the average of the prior IPCC [Intergovernmental Panel on Climate Change] mild projections and fully consistent with what we knew back in the early 1980s at Exxon. . . . I was greatly distressed by the climate science denial program campaign that Exxon’s front office launched around the time I stopped working as a consultant—but not collaborator—for Exxon. The advertisements that Exxon ran in major newspapers raising doubt about climate change were contradicted by the scientific work we had done and continue to do. Exxon was publicly promoting views that its own scientists knew were wrong, and we knew that because we were the major group working on this.⁴⁷

⁴⁶ Glaser Memo 1982.

⁴⁷ Statement of Martin Hoffert, *Examining the Oil Industry’s Efforts to Suppress the Truth About Climate Change*, Hearing Before the Committee on Oversight and Reform, U.S. House of Representatives (Oct. 23, 2019), <https://oversight.house.gov/legislation/hearings/examining-the-oil-industry-s-efforts-to-suppress-the-truth-about-climate-change>.

78. Ken Croasdale, a senior ice researcher for Exxon’s subsidiary Imperial Oil, stated to an audience of engineers in 1991 that greenhouse gases are rising “due to the burning of fossil fuels. Nobody disputes this fact.”⁴⁸

79. During the 1980s, the API, including the API CO₂ Task Force, provided a forum for fossil-fuel companies to share their research efforts and corroborate their findings related to anthropogenic greenhouse-gas emissions.⁴⁹ “The group’s members included senior scientists and engineers from nearly every major U.S. and multinational oil and gas company[.]”⁵⁰

80. Koch also understood climate-change science, the connection to sales of its fossil-fuel products, and the potential for catastrophic consequences before the science was widely understood by the general public.

81. The late 1980s and early 1990s also marked a turning point. Climate change began to be more widely recognized and publicly discussed. In 1988, James Hansen, a National Aeronautics Space Administration scientist, asserted at a congressional hearing “with 99% confidence” that global warming was already occurring.⁵¹ The same year, the United Nations formed the IPCC and members of U.S. Congress introduced “The National Energy Policy Act of 1988,” which intended to “establish a national energy policy that will quickly reduce the generation of carbon dioxide and [other] trace gases as quickly as is feasible in order to slow the

⁴⁸ Ronald C. Kramer, *Carbon Criminals, Climate Crimes* (1st ed. 2020).

⁴⁹ Neela Banerjee, *Exxon’s Oil Industry Peers Knew About Climate Dangers in the 1970s, Too*, Inside Climate News (Dec. 22, 2015), <https://insideclimatenews.org/news/22122015/exxon-mobil-oil-industry-peers-knew-about-climate-change-dangers-1970s-american-petroleum-institute-api-shell-chevron-texaco> [<https://perma.cc/QB22-KP6G>].

⁵⁰ *Id.*

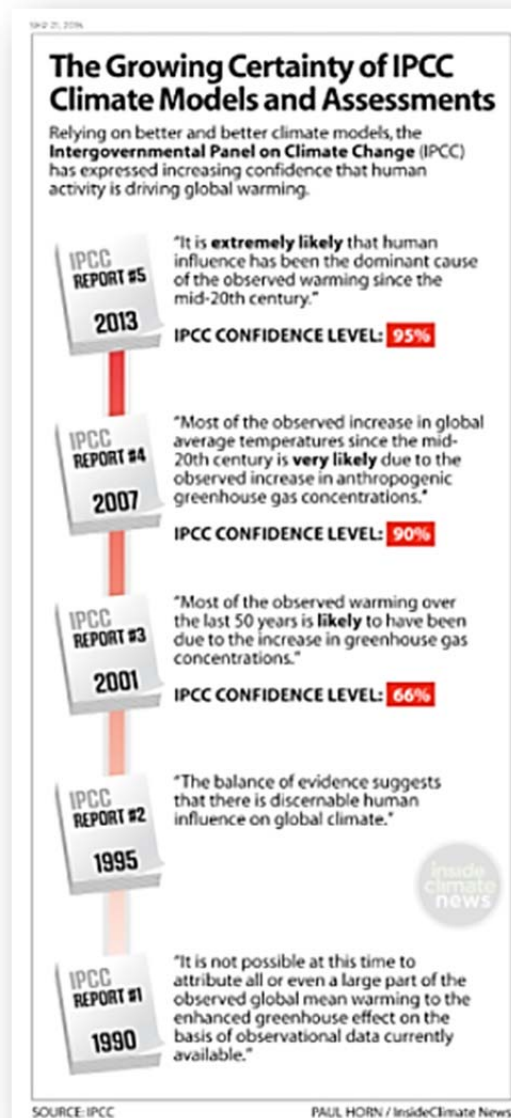
⁵¹ Amy Lieberman & Susanne Rust, *Big Oil braced for global warming while it fought regulations*, Los Angeles Times (Dec. 31, 2015) (hereinafter Lieberman & Rust 2015).

pace and degree of atmospheric warming . . . to protect the global environment.”⁵² In 1992, the United Nations held its Earth Summit in Rio de Janeiro and adopted the United Nations Framework Convention on Climate Change (UNFCCC), which is an international treaty with the aim of stabilizing the concentration of greenhouse gases to avoid the most catastrophic impacts of climate change. By 1997, the UNFCCC had adopted the Kyoto Protocol, which put the obligation to reduce greenhouse-gas emissions on developed countries on the basis that they are historically responsible for the rising levels of greenhouse gases in the atmosphere.

82. Between 1990 and 2013, the IPCC expressed increasing confidence about the link between human activity and climate change.⁵³ Yet during this time, Defendants worked to undermine the public’s perception of the growing scientific consensus around climate change:

⁵² Frumhoff 2015.

⁵³ Lisa Song et al., *Exxon Confirmed Global Warming Consensus in 1982 with In-House Climate Models*, Inside Climate News (Sept. 22, 2015), <https://insideclimatenews.org/news/18092015/exxon-confirmed-global-warming-consensus-in-1982-with-in-house-climate-models> [<https://perma.cc/93KF-SG3J>].



83. The onset of the public awareness of climate change and its consequences thus marked the beginning of Defendants' campaign of deception. As described below, Defendants began a purposeful, coordinated public-relations campaign to magnify and exaggerate the scientific uncertainty surrounding climate science, to dissuade mitigation efforts, and to avoid any meaningful changes to their ability to continue earning profits under their business-as-usual

approach. This campaign was intended to and did reach and influence Minnesota consumers, along with consumers elsewhere.

**DEFENDANTS MADE MISLEADING STATEMENTS ABOUT CLIMATE CHANGE SCIENCE,
WITHHELD THEIR SUPERIOR KNOWLEDGE, AND FAILED TO WARN THE PUBLIC OF THE
CONSEQUENCES OF CONTINUING TO CONSUME DEFENDANTS' PRODUCTS**

84. Despite their superior understanding of climate change science, the potentially catastrophic impacts of climate change, and the need to act swiftly, Defendants did not disseminate this information to the public or consumers. Instead, they engaged in a conspiracy to misrepresent the scientific understanding of climate change, the role of Defendants' products in causing climate change, the potential harmful consequences of climate change, and the urgency of action required to mitigate climate change. This conspiracy was intended to, and did, target and influence the public and consumers, including in Minnesota.

85. Defendants had a duty to disclose their superior information to the public because it was not otherwise known or available to the general public.

86. In addition, once Defendants chose to speak on the subject of climate change, they had a duty to do so in a way that was not misleading.

87. Instead, they engaged in a campaign of deception.

88. The campaign involved Defendants making misleading statements in advertising and other public materials directed at consumers and the general public, paying outside organizations to make misleading statements in advertising and other public materials directed at consumers and the general public, and paying scientists to produce misleading materials that were then cited and promoted by Defendants and outside organizations to lend credibility to their misleading statements. They did this all while failing to inform consumers, including those in Minnesota, and the general public of their superior knowledge to the contrary.

89. This deliberate campaign of deception and half-truths is described, in part, by internal strategy documents:

- A 1988 ExxonMobil internal document states that Exxon “is providing leadership through API in developing the petroleum industry position” on “the greenhouse effect” and goes on to describe the “Exxon Position.” The Exxon Position was to:
 - “Emphasize the uncertainty in scientific conclusions regarding the potential enhanced Greenhouse effect.
 - Urge a balanced scientific approach.
 - Due to current scientific uncertainty, Exxon is not conducting specific impact studies with respect to particular company operations or geographic regions.
 - Exxon has not modified its energy outlook or forecasts to account for possible changes in fossil fuel demand or utilization due to the Greenhouse effect.
 - Resist overstatement and sensationalization of potential Greenhouse effect which could lead to noneconomic development of nonfossil fuel resources.”⁵⁴
- A 1991 internal strategy document for the Information Council for the Environment (ICE—a front group created by the coal industry) describes its strategy as one to “reposition global warming as theory (not fact).”⁵⁵ The group planned to particularly target younger, lower-income women with its deceptive messages, noting that:

These women are more receptive than other audience segments to factual information concerning evidence for global warming. They are likely to be ‘green’ consumers, to believe the earth is warming, and to think the problem is serious. However, they are also likely to soften their support for federal legislation after hearing new information on global warming.⁵⁶

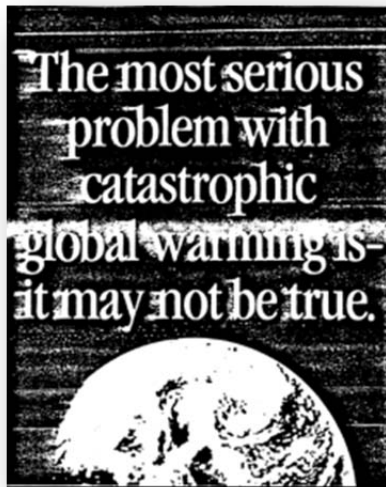
The following images are examples of ICE-funded print advertisements challenging the validity of climate science and intended to obscure the scientific consensus on anthropogenic climate change and induce political inertia to address it.⁵⁷

⁵⁴ Joseph M. Carlson, *Memorandum on The Greenhouse Effect* (Aug. 3, 1988), <http://www.climatefiles.com/exxonmobil/566>.

⁵⁵ Bill Brier, *Correspondence to O. Mark De Michele* (May 6, 1991), <http://www.climatefiles.com/denial-groups/ice-ad-campaign>.

⁵⁶ *Id.*

⁵⁷ Union of Concerned Scientists, *Deception Dossier #5: Coal’s “Information Council on the Environment” Sham* (July 2015), <https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf> & http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf 47-49.



- A 1998 internal strategy document written by a team convened by API describes the plan to defeat the UNFCCC’s Kyoto protocol by emphasizing that “it is not known for sure whether (a) climate change actually is occurring, or (b) if it is, whether humans really have any influence on it.”⁵⁸ The memo states that “victory” would be achieved when average citizens and the media were convinced that uncertainties existed in climate

⁵⁸ Joe Walker, *Global Climate Science Communications Plan* (Apr. 3, 1998), <http://www.climatefiles.com/trade-group/american-petroleum-institute/1998-global-climate-science-communications-team-action-plan/>.

science and were then “stimulat[ed] . . . to raise questions with policy makers.”⁵⁹ Ultimately, Defendants sought to:

raise such serious questions about the Kyoto treaty’s scientific underpinnings that American policy-makers not only will refuse to endorse it, they will seek to prevent progress toward implementation at the Buenos Aires meeting in November or through other ways. Informing teachers/students about uncertainties in climate science will begin to erect a barrier against further efforts to impose Kyoto-like measures in the future.⁶⁰

- A 2006 memorandum from the Intermountain Rural Electric Association outlines a strategy to combat climate change “alarmists” through a campaign focused on science, information dissemination, and politics.⁶¹ The memorandum describes, *inter alia*, strategies undertaken by Koch:

There are other groups that are interested in the issue of global warming and the concerns about its costs. Koch Industries is working with other large corporations, including AEP and the Southern Company, on possibly financing a film that would counteract *An Inconvenient Truth*. Koch has also decided to finance a coalition that very likely will be administered through the National Association of Manufacturers. The Competitive Enterprise Institute (CEI) has been running two ads in ten states that were financed by General Motors and the Ford Motor Company. CEI has a director on climate change and other employees working on the issue. We have met with Koch, CEI and Dr. Michaels, and they meet among themselves periodically to discuss their activities.

90. In furtherance of the strategies described in these memoranda, Defendants made misleading statements about climate change, the relationship between climate change and their fossil-fuel products, and the urgency of the problem. Defendants made these statements in public fora and in advertisements published in newspapers and other media with substantial circulation to Minnesota, including national publications such as the *New York Times*, *Wall Street Journal*, and *Washington Post*. Examples of misleading statements made by Defendants include:

- In 1996, then-Chairman of Exxon Corporation Lee Raymond misleadingly wrote in an internal publication that “taking drastic action immediately is unnecessary since many scientists agree there’s ample time to better understand the climate system.” Raymond also misleadingly implied that climate change was an “unproven theory”: “[A]

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ Stanley R. Lewandowski, Jr., *IREA Memorandum* (July 17, 2006), <https://assets.documentcloud.org/documents/4519366/2006-Intermountain-Rural-Electric-Assoc-IREA-Memo.pdf>.

multinational effort, under the auspices of the United Nations, is underway to cut the use of fossil fuels, based on the unproven theory that they affect the earth's climate."⁶² He did not warn of Exxon's contrary scientific findings, such as those documented in the 1982 Cohen/Levine Memo.

- In another article in the same internal publication, Exxon misleadingly failed to acknowledge the potentially catastrophic consequences of climate change, instead insisting that the greenhouse effect is "definitely a good thing." Exxon misleadingly stated that "the indications are that a warmer world would be far more benign than many imagine . . . moderate warming would reduce mortality rates in the US, so a slightly warmer climate would be more healthful."⁶³ The article did not warn of Exxon's earlier conclusion that significant sea level rise would cause catastrophic flooding.
- API published an extensive report in 1996 warning against concern over CO₂ buildup and any need to curb consumption or regulate the fossil-fuel industry. The introduction stated that "there is no persuasive basis for forcing Americans to dramatically change their lifestyles to use less oil." The authors discouraged the further development of certain alternative energy sources, writing that "government agencies have advocated the increased use of ethanol and the electric car, without the facts to support the assertion that either is superior to existing fuels and technologies" and that "policies that mandate replacing oil with specific alternative fuel technologies freeze progress at the current level of technology, and reduce the chance that innovation will develop better solutions." The paper also denied the human connection to climate change, by falsely stating that no "scientific evidence exists that human activities are significantly affecting sea levels, rainfall, surface temperatures or the intensity and frequency of storms." The report's message was false but clear: "Facts don't support the arguments for restraining oil use."⁶⁴
- At a 1997 gathering of energy executives at the World Petroleum Congress in Beijing, Raymond falsely claimed that the impact of climate change was uncertain, and misleadingly asserted that the problem was not urgent: "It is highly unlikely that the temperature in the middle of the next century will be affected whether policies are enacted now or 20 years from now." He stated, "Many people—politicians and the public alike—believe that global warming is a rock-solid certainty, but it's not." He also falsely stated that "[t]he earth is cooler today than it was 20 years ago."⁶⁵ He did not warn of the

⁶² Lee Raymond, *Climate change: don't ignore the facts* (Fall 1996),

<http://www.climatefiles.com/exxonmobil/global-warming-who-is-right-1996>.

⁶³ Johnathan H. Adler, *Global warming: What to think? What to do?* (Fall 1996),

<http://www.climatefiles.com/exxonmobil/global-warming-who-is-right-1996>.

⁶⁴ Sally Brain Gentile et al., *Reinventing Energy: Making the Right Choices*, American Petroleum Institute (1996), <http://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-energy>.

⁶⁵ Lee Raymond, *Energy—key to growth and a better environment for Asia-Pacific nations* (Oct. 13, 1997), <http://www.climatefiles.com/exxonmobil/1997-exxon-lee-raymond-speech-at-world-petroleum-congress/>.

contrary findings from the Cohen/Levine Memo or any of the other contrary findings by Exxon and industry scientists.

- In 1997, Mobil (now ExxonMobil) misleadingly implied in a *New York Times* advertorial (a paid advertisement published alongside a newspaper's editorials and designed to appear as if it were an editorial itself) that the science of climate change was too uncertain to try to reduce emissions and that it was not determined what role fossil fuels play in causing climate change:

Let's face it: The science of climate change is too uncertain to mandate a plan of action that could plunge economies into turmoil Scientists cannot predict with certainty if temperatures will increase, by how much and where changes will occur. We still don't know what role man-made greenhouse gases might play in warming the planet Let's not rush to a decision at Kyoto. Climate change is complex, the science is not conclusive, the economics could be devastating.⁶⁶

The advertisement was intended to ensure that consumers continued to purchase fossil-fuel products, and failed to warn of the contrary findings by the industry's own scientists.

- In 1997, in a *New York Times* advertorial directed to consumers and purchasers (among others), Mobil misleadingly exaggerated the level of uncertainty in climate science and implied a lack of consensus among scientists:

[T]here is a high degree of uncertainty over the timing and magnitude of the potential impacts that man-made emissions of greenhouse gases have on climate To address the scientific uncertainty governments, universities and industry should form global research partnerships to fill in the knowledge gap, with the goal of achieving a consensus view on critical issues within a defined time frame[.]⁶⁷

The advertorial was intended to ensure that consumers continued to purchase fossil-fuel products, and failed to warn of the contrary findings by the industry's own scientists.

- In 1998, Mobil misleadingly stated in a *New York Times* advertorial that: "Credible economic studies have pointed out that mandating emission targets and timetables now will have an enormous negative impact on many national economies."⁶⁸ This advertorial did not disclose the enormous negative impact that Mobil had already determined climate change would cause.

⁶⁶ Mobil, *Reset the alarm*, New York Times (Oct. 30, 1997).

⁶⁷ Mobil, *Climate Change: a degree of uncertainty*, New York Times (Dec. 4, 1997).

⁶⁸ Mobil, *Post Kyoto, what's next?*, New York Times (Jan. 29, 1998) (emphasis in original).

- In 1999, Mobil misleadingly implied that unabated climate change might not be harmful: “We don’t know whether [climate] stabilization is necessary and, if so, at what level.”⁶⁹ This statement did not warn of its findings to the contrary.
- In 1999, Raymond misleadingly suggested at an annual meeting that future climate “projections are based on completely unproven climate models, or, more often, on sheer speculation.”⁷⁰ The “unproven” models were the same ones that ExxonMobil was using internally to study how climate change would affect its business. Using these models, in fact, ExxonMobil had accurately predicted (before 1992) that the Beaufort Sea’s open water season—when drilling and exploration occurred—would lengthen from two months to three or possibly five months.⁷¹ Raymond did not disclose his company’s use of those same internal models when he made this statement at the annual meeting.
- In 2000, an ExxonMobil advertisement in the *Washington Post* misleadingly implied that climate models (such as those it relied on internally) were unreliable: “Today’s global models simply don’t work at a regional level.” It went on to claim that the National Assessment Synthesis Report (on climate change) “is written as a political document, not an objective summary of the underlying science.”⁷² The advertisement failed to disclose what ExxonMobil’s own internal documents had already confirmed: that burning fossil fuels would result in catastrophic climate change.
- In 2000, an ExxonMobil advertorial in the *New York Times* misleadingly declared that consequences of climate change could be beneficial: “Just as changeable as your local weather forecast, views on the climate change debate range from seeing the issue as serious or trivial, and from seeing the possible future impacts as harmful or beneficial.” The advertorial went on to state that while climate-change science remained uncertain, the negative impacts of climate policies were fully understood: “[T]here is not enough information to justify harming economies and forcing the world’s population to endure unwarranted lifestyle changes by dramatically reducing the use of energy now,” but “we know with certainty that climate change policies, unless properly formulated, will restrict life itself.”⁷³ This advertorial did not disclose that Exxon’s own internal documents had already determined that climate change leading to a rise in sea level of five meters could cause catastrophic flooding.
- In 2004, an ExxonMobil newspaper advertisement continued to blatantly and falsely exaggerate the uncertainty of climate science: “Scientific uncertainties continue to limit our ability to make objective, quantitative determinations regarding the human role in

⁶⁹ Mobil, *Scenarios for Stabilization*, *New York Times* (Aug. 12, 1999).

⁷⁰ Sara Jerving et al., *What Exxon knew about the Earth’s melting Arctic*, *Los Angeles Times* (Oct. 9, 2015) (hereinafter Jerving 2015).

⁷¹ *Id.*

⁷² ExxonMobil, *Political cart before a scientific horse*, *Washington Post* (2000).

⁷³ ExxonMobil, *Do No Harm*, *Washington Post* (Mar. 16, 2000).

recent climate change or the degree and consequence of future change.”⁷⁴ This advertisement failed to disclose that ExxonMobil had already determined that climate change was both anthropogenic and severe.

- In 2010, David Koch of Koch Industries was credited with claiming that global warming is good news. “Lengthened growing seasons in the northern hemisphere, he says, will make up for any trauma caused by the slow migration of people away from disappearing coastlines. ‘The Earth will be able to support enormously more people because a far greater land area will be available to produce food,’ he says.”⁷⁵
- ExxonMobil’s 2018 public statement on climate change was misleading because it stressed uncertainty by saying the “current scientific understanding provides limited guidance on the likelihood, magnitude, or time frame of these events,” and promoted a false choice between climate solutions and economic development.⁷⁶ It failed to disclose that decades earlier, ExxonMobil had already known that climate change would have devastating effects as soon as 2050.
- Defendants continue to run misleading advertising campaigns highlighting their commitment to renewable energy.

These statements were intended to, and did, reach and influence the public and consumers, including in Minnesota.

91. Peer-reviewed research concludes that ExxonMobil deliberately misled the American public about climate change.⁷⁷ Researchers “present an empirical document-by-document textual content analysis and comparison of 187 climate change communications from ExxonMobil, including peer-reviewed and non-peer reviewed publications, internal company documents, and paid, editorial-style advertisements (‘advertorials’) in *The New York Times*.” The researchers “conclude that ExxonMobil contributed to advancing climate science—by way of its

⁷⁴ ExxonMobil, *Weather and climate*, New York Times (Jan. 22, 2004).

⁷⁵ Andrew Goldman, *The Billionaire’s Party*, New York Magazine (July 23, 2010).

⁷⁶ Union of Concerned Scientists, *The 2018 Climate Accountability Scorecard: Insufficient Progress from Major Fossil Fuel Companies*, 7 (2018), <https://www.ucsusa.org/sites/default/files/attach/2018/10/gw-accountability-scorecard18-report.pdf> [<https://perma.cc/R2DA-JW5J>].

⁷⁷ Geoffrey Supran & Naomi Oreskes, *Assessing ExxonMobil’s climate change communications (1977-2014)*, 2017 Environ. Res. Lett. 12.

scientists' academic publications—but promoted doubt about it in advertorials. Given this discrepancy, [they] conclude that ExxonMobil misled the public.”⁷⁸

92. Defendants have spent millions of dollars on advertising and public relations campaigns, including in Minnesota, in order to mislead consumers and the general public about scientists' certainty regarding climate change, the role of fossil fuels in creating the problem, the potential consequences of climate change, and the urgency of the need to take action.⁷⁹ Defendants spent millions on advertising and public relations because they understood that an accurate understanding of climate change would affect their ability to continue to earn profits by conducting business as usual.

93. Defendants' misleading statements were part of a conspiracy to defraud consumers and the general public, including consumers and the public in Minnesota, about climate change and the role of fossil-fuel products in climate change.

94. Defendants' websites contain misleading statements about climate science, the role of fossil-fuel products in contributing to climate change, the consequences of climate change and/or the need to take swift action to mitigate climate change, and the harms that it would bring. These websites are and were accessible to Minnesotans, and were intended to reach and influence Minnesotans, at times relevant to this Complaint.

95. The misleading statements chronicled here were directed at consumers, including in Minnesota. Defendants intended that consumers would rely on their statements in justifying decisions to not change their fossil-fuel consumption habits.

⁷⁸ *Id.*

⁷⁹ *See, e.g.,* Kate Yoder, *Big Oil spent \$3.6 billion to clean up its image, and it's working*, Grist (Dec. 24, 2019), <https://grist.org/energy/big-oil-spent-3-6-billion-on-climate-ads-and-its-working/> [<https://perma.cc/2HM4-8HB6>] (hereinafter Yoder 2019).

96. ExxonMobil knows that information about the environmental impact of using its fossil-fuel products is material to consumers because, for example, it has commissioned surveys and gathered and analyzed data to evaluate consumer perceptions to inform the Company's fossil-fuel marketing.

97. Recently, efforts are being made to warn consumers at the gas pump of the extreme dangers of the routine consumer use of fossil fuels like gasoline. There are now various initiatives in the United States and other countries, including in Cambridge, Massachusetts; Berkeley, Santa Monica, and San Francisco, California; Seattle, Washington; Canada; and Sweden, to require climate-change warning labels on gas pumps based on the principle that consumers will change their purchasing decisions when they have direct access to accurate information about the connection between their consumption of fossil fuels and climate change. Similar to health warning labels on tobacco products, which aim to educate consumers, and thereby reduce a population's health risks and medical costs, fossil-fuel warning labels that accurately relay risk can educate consumers and thereby reduce the risks and costs associated with climate change. Here, however, Defendants did not warn consumers of the harms Defendants knew their fossil fuel products posed, and instead misled consumers regarding those harms and their causes.

DEFENDANTS PAID OUTSIDE ORGANIZATIONS TO MAKE MISLEADING STATEMENTS ABOUT CLIMATE CHANGE SCIENCE, ITS CONSEQUENCES AND THE URGENCY OF THE PROBLEM

98. In addition to making misleading statements themselves, Defendants have also funneled hundreds of millions of dollars to organizations with the intent that these organizations would make misleading statements about climate change, including in Minnesota, and with the intent that these statements would promote and allow for the continued unfettered sales of their products. For example, between 1998 and 2017, ExxonMobil spent more than \$36 million

funding organizations that misrepresented the scientific consensus that Defendants' fossil-fuel products were causing climate change.⁸⁰ These organizations were intended to, and did, target and influence the public and consumers, including in Minnesota. Although ExxonMobil publicly declared that it would stop funding climate-denial organizations in 2008, more than \$13 million of this funding was transmitted to "denial organizations" between 2008 and 2017.⁸¹ In fact, in 2017 alone, ExxonMobil still contributed more than \$1.5 million to climate-change denial organizations.⁸² Similarly, between 1997 and 2017, Koch-controlled foundations gave more than \$127 million to groups that obfuscated climate science.⁸³

99. The web of "front groups" and denial organizations supported exclusively or in part by Defendants is vast. Network analysis published in *Nature Climate Change* in 2015 identified at least 4,556 individuals and 164 organizations in the global web of climate-change denial.⁸⁴ These organizations engaged in a conspiracy with Defendants to discredit the science of climate change in order to protect fossil-fuel sales, including in Minnesota, and Defendants' ability to continue to profit from their business-as-usual model. A small sample of these seemingly independent groups and their misleading or false statements are highlighted in paragraphs 100-117.

⁸⁰ Union of Concerned Scientists, *ExxonMobil Foundation & Corporate Giving to Climate Denier & Obstructionist Organizations*, https://www.ucsusa.org/sites/default/files/attach/2019/ExxonMobil-Worldwide-Giving-1998-2017.pdf?_ga=2.84739161.1384563456.1548170682-1610477837.1510330963 [<https://perma.cc/TG98-G3CJ>].

⁸¹ *Id.*

⁸² *Id.*

⁸³ Greenpeace, *Koch Industries: Secretly Funding the Climate Denial Machine*, <https://www.greenpeace.org/usa/global-warming/climate-deniers/koch-industries/> [<https://perma.cc/J8FJ-88PX>].

⁸⁴ Justin Farrell, *Corporate funding and ideological polarization about climate change*, Proc. Nat'l Acad. Sci. U.S.A. 1, 113 (Jan. 5, 2016).

100. In the 1990s, Defendants formed and/or funded one such outside organization, called the Global Climate Coalition (GCC). Defendants funded and orchestrated the GCC's operations both directly through their own membership and through proxy GCC members, including API. Defendant ExxonMobil, among others, was a core member of and substantial financial contributor to the GCC, including holding leadership positions on its board, and received ongoing information about its activities. The GCC spent millions on lobbying and public relations efforts, including distributing a video to hundreds of journalists, the White House, and several Middle Eastern oil-producing countries that misleadingly suggested that higher levels of CO₂ would be beneficial for crop production, and could be the solution to world hunger.⁸⁵

101. As part of Defendants' long-term campaign to influence consumers' demand for oil and gas through mass disinformation, Defendants ensured that the GCC implemented public advertising and outreach campaigns to discredit climate science and cast doubt on the dangerous consequences of climate change. These campaigns were national and extended to Minnesota. They were intended to and did influence the public and consumers, including in Minnesota. Defendants exerted control over the GCC's deceptive marketing in the form of funding, supervision, facilitation, and direct participation. Defendants also benefited financially from the GCC's misleading campaigns, which helped to ensure a thriving consumer market for Defendants' fossil-fuel products.

102. In a 1994 report, the GCC stated that "observations have not yet confirmed evidence of global warming that can be attributed to human activities," that "[t]he claim that serious impacts from climate change have occurred or will occur in the future simply has not

⁸⁵ Lieberman & Rust 2015.

been proven,” and “[c]onsequently, there is no basis for the design of effective policy action that would eliminate the potential for climate change.”⁸⁶

103. In 1995, the GCC created an internal climate-change primer that included the statements that “the scientific basis for the greenhouse effect and the potential impact of human emissions of greenhouse gases such as CO₂ on the climate is well-established and cannot be denied” and that “contrarian theories” about climate change do not “offer convincing arguments against the conventional model of greenhouse gas emission-induced climate change.” But the GCC removed this second statement from a more widely circulated version of its primer in an effort to mislead readers. The excised section also dismissed the claims of contrarian research on the role of solar radiation as an explanation for global warming.⁸⁷ The GCC also misleadingly implied that scientists disputed the likelihood of sea-level rise as a result of climate change: “There has been a great deal of speculation about a potential sea level rise, [but] most scientists question the predictions of dangerous melting of Greenland or Antarctic ice caps.”⁸⁸

104. Also in 1995, the GCC published a booklet called “Climate Change: Your Passport to the Facts,” which stated, “While many warnings have reached the popular press about the consequences of a potential man-made warming of the Earth’s atmosphere during the

⁸⁶ GCC, *Issues and Options: Potential Global Climate Change* (1994), <http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-potential-global-climate-change-issues>.

⁸⁷ Union of Concerned Scientists, *Climate Deception Dossier #7: The Global Climate Coalition’s 1995 Primer on Climate Change Science*, at 25-28 (July 2015), <https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf> [<https://perma.cc/JL2V-XYGL>] & https://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-7_GCC-Climate-Primer.pdf (hereinafter *Dossier #7—GCC Primer*).

⁸⁸ Lieberman & Rust 2015.

next 100 years, there remains no scientific evidence that such a dangerous warming will actually occur.”⁸⁹ Defendants knew and approved of the dissemination of this document.

105. These GCC advertisements were intentionally misleading. GCC’s members, including Defendants, knew that climate change was real and ongoing, and that its impacts increasingly were posing serious risks to the public and the world. Defendants supported, approved, and furthered these misleading advertisements because they were consistent with Defendants’ goal of influencing consumer demand for their fossil-fuel products and assisted them in maintaining profits.

106. In 1997, William O’Keefe, GCC Chairman and API Executive Vice President, falsely stated in an op-ed published in the *Washington Post*, “Climate scientists don’t say that burning oil, gas and coal is steadily warming the earth.” This false statement contradicted long-established science, as well as Defendants’ own knowledge. Yet Defendants nevertheless supported and approved the publication of this op-ed.

107. By funding and actively participating in the GCC and other similar organizations that published disinformation about the risks of climate change, Defendants directly contributed to and helped coordinate the deception of consumers in Minnesota and the broader public about the risks of climate change and the harmful consequences associated with the sale and use of Defendants’ fossil-fuel products.

108. The GCC disbanded in 2002, after then-President Bush rejected the Kyoto Protocol, stating that it had “achieved what [it] wanted to accomplish with the Kyoto Protocol.”⁹⁰

⁸⁹ GCC, *Climate Change: Your Passport to the Facts* (1995), <http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1995-climate-change-facts-passport>.

⁹⁰ Dossier #7—GCC Primer.

109. A similar pattern of activities was undertaken in the 1990s by a group known as the “Greening Earth Society” (GES), which was funded by a consortium of U.S. coal corporations, rural electric cooperatives, and municipal electric utilities. GES was headed by Fred Palmer, who now has a position with the Heartland Institute.⁹¹ In 1998, GES produced a video, *The Greening of Planet Earth Continues*, which is a sequel to *The Greening of Planet Earth* released by the Western Fuels Association, and that is still being promoted today by the Center for the Study of CO₂ and Global Change. The description of the video misleadingly states that CO₂ emissions are beneficial: “expert scientists assert that CO₂ is not a pollutant, but a nutrient to life on earth.” The video is claimed to have been distributed to more than 30,000 people worldwide.⁹² In 1999, GES published the “State of the Climate Report” with essays from notable climate change deniers, such as Patrick Michaels, who has ties to Koch.⁹³

110. Defendants and their foundations have given and continue to give the American Enterprise Institute (AEI) millions of dollars to further their campaign of deception. AEI has made and continues to make misleading statements about climate change. For example, on January 21, 2020, AEI published an online article entitled “Six facts about the non-problem of global warming.” The six “facts” listed are:

- (1) The earth’s temperature has been rising at a microscopically slow pace. . . .
- (2) A warmer earth saves lives. . . .
- (3) While the earth’s temperature has risen, the number of natural disaster deaths has been sharply declining. . . .
- (4) The global air pollution death rate has fallen by almost 50% since 1990. . . .
- (5) Any impact on the economy is likely to be minimal. . . .
- (6) Restricting carbon

⁹¹ Desmog: Clearing the PR Pollution that clouds climate science, *Greening Earth Society*, <https://www.desmogblog.com/greening-earth-society> [<https://perma.cc/J3ES-ADF4>].

⁹² *Id.*

⁹³ New Hope Environmental Services, *State of the Climate Report: Essays on Global Climate Change* (1999), <http://www.climatefiles.com/deniers/patrick-michaels-collection/1999-greening-earth-society-climate-report-2>.

emissions to attempt to stop global warming is the wrong path—even the most severe restrictions will have almost zero impact on the earth’s temperature.⁹⁴

The conclusion, according to AEI, is that “[g]lobal warming has not been harmful and presents no danger to future generations.” ExxonMobil gave AEI \$160,000 in 2017 and almost \$4,500,000 between 1998 and 2017. The Charles G. Koch Charitable Foundation gave AEI over \$2 million between 2004 and 2017 and AEI received \$750,000 from the Claude R. Lambe Charitable Foundation between 2005 and 2007. API gave AEI \$110,000 between 2008 and 2013.

111. ExxonMobil has served or currently serves as corporate leadership of the American Legislative Exchange Council (ALEC) and/or ALEC’s Energy, Environmental and Agriculture Task Force. ALEC’s current website misleadingly characterizes climate change as “a historical phenomenon” for which “the debate will continue on the significance of natural and anthropogenic contributions.”⁹⁵ ALEC continues to question the scientific consensus on climate change, contrary to evidence, and has regularly given climate deniers a speaking platform at its annual meeting. Defendants and their foundations have given and continue to give ALEC millions of dollars to further these misleading statements. ExxonMobil gave ALEC \$60,000 in 2017 and almost \$2 million between 1998 and 2017. The Charles G. Koch Charitable Foundation gave ALEC more than \$2.4 million between 1997 and 2017. The Charles Koch Institute gave ALEC \$137,089 between 2014 and 2017, and the Claude R. Lambe Charitable Foundation gave ALEC \$720,000 between 1993 and 2012. API gave ALEC \$88,000 between 2008 and 2010.

112. The Center for the Study of CO₂ and Global Change produces a weekly newsletter that has a veneer of scientific credibility but misleadingly states that additional CO₂ in

⁹⁴ Mark Perry, *Six facts about the non-problem of global warming*, American Enterprise Institute (Jan. 21, 2020), <https://www.aei.org/carpe-diem/six-facts-about-the-non-problem-of-global-warming/>.

⁹⁵ ALEC, *Energy Principles*, <https://www.alec.org/model-policy/alec-energy-principles/> [<https://perma.cc/X7WK-W9W9>].

the atmosphere will be beneficial.⁹⁶ In addition, the Center’s website offers a book for sale entitled “The Many Benefits of Atmospheric CO₂ Enrichment: How humanity and the rest of the biosphere will prosper from this amazing trace gas that so many have wrongfully characterized as a dangerous pollutant!”⁹⁷ The book misleadingly “describes a host of real-world benefits that the controversial atmospheric trace gas [CO₂] provides, first to earth’s plants and then to the people and animals that depend upon them for their sustenance.”⁹⁸ Defendants have funded the activities of the Center in order to advance misleading and false ideas. The Center received \$85,000 from ExxonMobil between 1998 and 2003. The Center also received \$85,000 from the Claude R. Lambe Charitable Foundation between 2004 and 2007.

113. The George C. Marshall Institute (GMI) has been funded by Defendants and affiliated foundations to perpetuate, *inter alia*, the false claim that there is no scientific consensus about the science of climate change. In 1997, for example, GMI orchestrated a sham petition that claimed to have 17,000 signatories arguing against man-made climate change. The “petition” included a cover letter from Fred Seitz, a tobacco scientist and climate denier, and a fake “research paper” entitled: *Environmental Effects of Increased Atmospheric Carbon Dioxide*. The National Academy of Science issued a statement that “[t]he Petition project was a deliberate attempt to mislead scientists and rally them in an attempt to undermine support for the Kyoto Protocol. The petition was not based on a review of the science of global climate change, nor

⁹⁶ See, e.g., Center for the Study of Carbon Dioxide and Global Change, *Volume 23: February 2020*, <http://www.co2science.org/index.php> [<https://perma.cc/QJL4-GNTD>].

⁹⁷ Craig D. Idso & Sherwood B. Idso, *The Many Benefits of Atmospheric CO₂ Enrichment: How humanity and the rest of the biosphere will prosper from this amazing trace gas that so many have wrongfully characterized as a dangerous pollutant!* (2011).

⁹⁸ *Id.*

were its signers experts in the field of climate science.”⁹⁹ Although it was exposed as a sham,¹⁰⁰ for many years thereafter the petition continued to be relied upon to make false and misleading statements about climate change. For example, the petition was cited in a U.S. Senate press release to counter criticism that was raised at a hearing claiming that GMI represented the views of only a few scientists.¹⁰¹ GMI received \$570,000 from ExxonMobil Foundation between 1999 and 2005, and \$260,000 from ExxonMobil Corporation between 2002 and 2007. GMI received \$200,000 from the Charles G. Koch Charitable Foundation between 2013 and 2015 and \$420,000 from the Claude R. Lambe Charitable Foundation between 2004 and 2012.

114. GMI’s Climate Change program became the “CO₂ Coalition” in 2015.¹⁰² The CO₂ Coalition continues to promote the false assertion that increased atmospheric concentrations of CO₂ will be beneficial to our lives and the economy. Its mission

is to demonstrate with science-based facts that: CO₂ is a nutrient that is essential to life. CO₂ at current levels and higher enables plants, trees and crops to grow faster and more efficiently. It is essential for life. Just as we require oxygen for life, our economy requires energy, often described as the oxygen or lifeblood of the economy. Energy must be abundant, reliable, and reasonably priced for an economy to achieve robust and sustained growth.¹⁰³

⁹⁹ Desmog: Clearing the PR Pollution that clouds climate science, *George C. Marshall Institute*, <https://www.desmogblog.com/george-c-marshall-institute> [<https://perma.cc/XX3Q-R6FS>] (hereinafter Desmog Marshall Institute).

¹⁰⁰ H. Josef Hebert, *Jokers Add Fake Names to Warming Petition*, Seattle Times (May 1, 1998) (noting that the petition was signed by fictitious characters and pop stars); Kevin Grandia, *The 30,000 Global Warming Petition Is Easily-Debunked Propaganda*, HuffPost (Aug. 22, 2009), https://www.huffpost.com/entry/the-30000-global-warming_b_243092 [<https://perma.cc/4EJT-XF86>].

¹⁰¹ *Inhofe Questions Science Behind Arctic Report*, U.S. Senate Committee on Environment & Public Works (Nov. 16, 2004), <https://www.epw.senate.gov/public/index.cfm/2004/11/post-b505f565-f2db-4dab-8c76-c6209e5b3d7c> [<https://perma.cc/KHZ7-TJRW>].

¹⁰² Desmog Marshall Institute.



¹⁰³ CO₂ Coalition, *CO₂ Fundamentals*, <https://co2coalition.org/co2-fundamentals/> [<https://perma.cc/4VHB-U739>].

On December 3, 2019, at a presentation at UNFCCC's 25th Conference of the Parties climate summit in Madrid, at an event titled "Rebutting the United Nation's Climate Delusion," and in collaboration with the Heartland Institute, the Committee for a Constructive Tomorrow, and the European Institute for Climate and Energy, the director of the CO₂ Coalition (William Happer) referred to climate change as a phony and bizarre "environmental cult":

We are here, though, on false pretenses, wasting our time talking about a non-existent climate emergency. And it's hard to understand how much further the shrillness can go, as this started out as global warming, then it was climate change or global weirding, climate crisis, climate emergency . . . what next? But stick around, it will happen. I hope sooner or later enough people will recognize the phoniness of this bizarre environmental cult and bring it to an end.¹⁰⁴

Happer's talk also included the following deceptive image:¹⁰⁵

CO₂ is not a pollutant!




Power plant's breath:

70% N₂
5% O₂
5% H₂O
20% CO₂

Alice's breath:

75% N₂
15% O₂
6% H₂O
4% CO₂



¹⁰⁴ *Trump Adviser William Happer Talks Climate Alarmism During COP25 in Madrid*, The Heartland Institute (Dec. 3, 2019), <https://www.youtube.com/watch?v=j8KxVQFoyT0>.

¹⁰⁵ *Id.*

The Coalition received \$364,985 from GMI in 2015. The Coalition received \$9,126 from the Charles G Koch Charitable foundation in 2016, and \$46,409 from the Charles Koch Institute between 2016 and 2017.

115. The Heartland Institute promotes itself as “[t]he world’s most prominent think-tank promoting skepticism about man-made climate change.”¹⁰⁶ Heartland has received funding from Defendants in the past, although ExxonMobil has attempted to distance itself from the organization in recent years.¹⁰⁷ The Heartland Institute advances the false claims that there is no consensus about the causes, effects, or future rate of global warming; that global warming is primarily a natural phenomenon; and that the benefits of warming are likely to outweigh the costs. Heartland also claims responsibility for defeating cap and trade, a regulatory mechanism designed to curb harmful emissions: “You may also know us from our work exposing the shoddy science and missing economics behind the global warming delusion. Our videos, books, studies, and international conferences changed the debate and led to the defeat of ‘cap and trade.’”¹⁰⁸

116. Heartland disseminates this false and misleading information to educators in Minnesota. For example, Heartland sent Minnesota educators, for free, a book offered for sale on Heartland’s website entitled “Why Scientists Disagree About Global Warming: The NIPCC Report on Scientific Consensus.”¹⁰⁹ The book was authored by well-known climate deniers,

¹⁰⁶ *Arthur B. Robinson Center on Climate and Environmental Policy*, The Heartland Institute, <https://www.heartland.org/Center-Climate-Environment/index.html> [<https://perma.cc/R5QY-MNQF>].

¹⁰⁷ *See, e.g., David Adam, Exxon to cut funding to climate change denial groups*, The Guardian (May 28, 2008), <https://www.theguardian.com/environment/2008/may/28/climatechange.fossil-fuels> [<https://perma.cc/CXH2-WXD6>].

¹⁰⁸ Joseph L. Bast, *Message from the President*, <https://www.webcitation.org/6dHrecCkT> [<https://perma.cc/L3NZ-HA2V>].

¹⁰⁹ Craig Idso et al., *Why Scientists Disagree About Global Warming: The NIPCC Report on Scientific Consensus*, The Heartland Institute (2d ed. 2016).

including Craig Idso. The first “Key Finding” of the book is: “The most important fact about climate science, often overlooked, is that scientists disagree about the environmental impacts of the combustion of fossil fuels on the global climate.” Most of the “findings” of the book are repeated from other Heartland Institute publications by the so-called “Nongovernmental International Panel on Climate Change,” which consists of the same well-worn climate change deniers such as Idso.¹¹⁰

117. Other groups that have received funding from Defendants as part of the conspiracy to deceive the public about climate change include, but are not limited to: Americans for Prosperity, Cato Institute, Competitive Enterprise Institute, Center of the American Experiment, Hoover Institute, Institute for Energy Research, Heritage Foundation, Manhattan Institute, Reason Foundation, and U.S. Chamber of Commerce.

118. The scope and extent of Defendants’ support for these climate denial groups is not fully understood. One or more Defendants directed funds to outside organizations engaged in the campaign of deception conspiracy by funneling money through one or more intermediate organizations such as DonorsTrust and Donors Capital Fund. Between 1998 and 2017, DonorsTrust gave more than \$150 million to climate denial groups and Donors Capital Fund gave nearly \$200 million to these groups during the same time frame.

119. Defendants paid for, expected, and then used the misleading materials produced by these outside organizations in furtherance of their strategy to exaggerate scientific uncertainty and avoid a clear understanding of the need to address greenhouse-gas emissions and climate change.

¹¹⁰ *Lead Authors*, Nongovernmental International Panel on Climate Change, <http://climatechangereconsidered.org/lead-authors/> [<https://perma.cc/XD8Y-9NT6>].

120. The websites of outside organizations funded by Defendants in order to deceive the public about climate science, the role of their products in contributing to climate change, the consequences of climate change, and/or the need to take swift action to mitigate climate change and the harms that it would bring are and were accessible to Minnesotans at times relevant to this Complaint. These websites contain and have contained misleading and deceptive information.

121. The payments from Defendants to these outside organizations were part of a conspiracy to defraud consumers and the public about climate change and the role of Defendants' products in climate change. Defendants intended for these outside organizations to use the funding provided to them to disseminate misleading statements about climate change, which is what the outside organizations did.

122. Defendants intended for the misleading statements made by outside organizations to be directed at consumers of their products. Defendants intended that consumers, including Minnesotans, would rely on misleading statements by outside organizations to justify decisions to not change their fossil-fuel-consumption habits.

123. Defendants also intended that the misleading statements made by outside organizations would be relied on by the public in justifying decisions not to, *inter alia*, demand regulation, taxation, or otherwise require abatement of the harmful greenhouse-gas emissions that are the byproducts of burning fossil fuels.

124. Creating a false sense of disagreement in the scientific community (despite the consensus that Defendants' own scientists, experts, and managers had previously acknowledged) has had an evident impact on public opinion. A 2007 Yale University-Gallup poll found that while 71 percent of Americans personally believed global warming was happening, only 48 percent believed that there was a consensus among the scientific community, and 40 percent

believed there was a lot of disagreement among scientists over whether global warming was occurring.¹¹¹

DEFENDANTS FUNDED FRAUDULENT SCIENTIFIC RESEARCH WITH THE INTENT THAT IT WOULD CREATE UNCERTAINTY WHERE THERE WAS NONE AND LEND FALSE CREDIBILITY TO THE MISLEADING STATEMENTS THEY AND OUTSIDE ORGANIZATIONS WERE MAKING

125. In furtherance of their goals to exaggerate scientific uncertainty and avoid a clear understanding of the need to address greenhouse-gas emissions and climate change and as part of a conspiracy, Defendants secretly paid scientists to produce research that supported their campaign of deception.

126. For example, one purportedly independent research scientist, Wei-Hock “Willie” Soon, received more than \$1.2 million in research funding between 2001 and 2012 from fossil-fuel interests including ExxonMobil, API, and the Charles Koch Foundation. The source of Soon’s funding was discovered in 2015 pursuant to a Freedom of Information Act request. The documents received from that request revealed a disturbing relationship between Soon’s research and the fossil-fuel industry. These documents showed that the fossil-fuel industry paid for Soon’s *entire* salary and research budget. Contracts between Soon and his funders demonstrated that the industry paying him had the right to review his research before it was published, and the Smithsonian, that housed Soon, agreed not to disclose the funding arrangement without the permission of the fossil-fuel funders.¹¹² Defendants and their proxies intended Soon to produce exactly the sort of “research” that he did—the arrangement and its outcome is not a coincidence.

¹¹¹ *American Opinions on Global Warming: A Yale/Gallup/Clearvision Poll*, Yale Program on Climate Change Communication (July 31, 2007), <http://climatecommunication.yale.edu/publications/american-opinions-on-global-warming>.

¹¹² Union of Concerned Scientists, *Climate Deception Dossier #1: Dr. Wei-Hock Soon’s Smithsonian Contracts*, (July 2015), <https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf> [<https://perma.cc/JL2V-XYGL>] & <https://s3.amazonaws.com/ucs-documents/global->

127. William Happer is also on the payroll of Defendants.¹¹³ Happer served for a year on the Trump administration’s national security council and has been asked to serve as an expert witness on climate change, despite never having published a peer-reviewed article on the topic. In contrast to his lack of peer-reviewed climate-change articles, Happer has published numerous articles in non-peer-reviewed publications arguing that climate change is due to natural forces and additional CO₂ will be beneficial for humankind. In 2013, as one example, Happer, the then-head of the GMI, stated in an opinion piece in the *Wall Street Journal*, a national newspaper with substantial circulation in Minnesota,

[T]he conventional wisdom about carbon dioxide is that it is a dangerous pollutant. That’s simply not the case. Contrary to what some would have us believe, increased carbon dioxide in the atmosphere will benefit the increasing population on the planet by increasing agricultural productivity.¹¹⁴

And in November 2019, as another example, Happer told the *Washington Examiner*, in an article published on its website with national reach, including to Minnesota, that climate change was invented by paranoid scientists.¹¹⁵ Defendants and their proxies intended Happer to produce exactly the sort of articles that he did—the arrangement and its outcome is not a coincidence.

warming/Climate-Deception-Dossier-1_Willie-Soon.pdf (hereinafter Dossier #1—Soon Contracts).

¹¹³ Happer and Frank Clemente were exposed by an undercover operation as agreeing to produce research in exchange for payments to his organization, the CO₂ Coalition. See Suzanne Goldenberg, *Greenpeace exposes sceptics hired to cast doubt on climate science*, *The Guardian* (Dec. 8, 2015), <https://www.theguardian.com/environment/2015/dec/08/greenpeace-exposes-sceptics-cast-doubt-climate-science> [<https://perma.cc/N4SQ-WXFD>].

¹¹⁴ William Happer & Harrison Schmitt, *In Defense of Carbon Dioxide*, *Wall Street Journal Opinion* (May 8, 2013) (“[I]t’s a wonder that humanitarians aren’t clamoring for more atmospheric carbon dioxide. Instead, some are denouncing it.”).

¹¹⁵ Josh Siegel, *Former Trump official says climate change is “imaginary threat” invented by “insular and paranoid” scientists*, *Washington Examiner* (Nov. 5, 2019).

128. These examples are part of a pattern of using manufactured or questionable science to further business goals. Additional examples include Koch Industries-owned Georgia Pacific generating misleading scientific research as a result of liability for asbestos injuries.¹¹⁶

129. Defendants misleadingly cite and have cited to research by these scientists as if it were independent research, without revealing that they paid for it to be produced, and without revealing that their own science runs contrary to its conclusions.

130. The payments from Defendants to these scientists (either directly or through various front organizations) were part of a conspiracy to defraud consumers and the public about climate change and the role of Defendants' products in causing climate change. Defendants intended for these scientists to use the funding provided to them to publish misleading research about climate change, which is what the scientists did.

131. Defendants intended for the research of scientists they funded to be distributed to and relied on by consumers when buying Defendants' products, including by consumers in Minnesota.

DEFENDANTS' FRAUD ONLY RECENTLY BECAME DISCOVERABLE

132. To determine whether Defendants engaged in consumer fraud and failure to warn by giving a misleading impression and failing to disclose material information about climate change, it is necessary to know what Defendants knew about that topic and in what timeframe. We only now know that the information that Defendants and their proxies provided to the public was known to be incomplete and untrue at the times those statements were made.

¹¹⁶ See, e.g., Union of Concerned Scientists, *The Disinformation Playbook, How Business Interests Deceive, Misinform, and Buy Influence at the Expense of Public Health & Safety* (May 18, 2018), <https://ucsusa.org/resources/disinformation-playbook> [<https://perma.cc/HGW7-2Z5B>].

133. The information about what Defendants knew about climate change leading up to and during their campaign of deception was recently uncovered by investigations of journalists at the Energy and Environment Reporting Project at Columbia University's Graduate School of Journalism, *InsideClimate News*, and *The Guardian*. There were concurrent investigations by the non-governmental organizations Center for International Environmental Law and Union of Concerned Scientists as well.

134. In July 2015, the Union of Concerned Scientists published *The Climate Deception Dossiers*, revealing (among other facts) that the fossil-fuel industry, which had long pointed to Dr. Soon's research to support its positions, had actually fully funded the allegedly independent research.¹¹⁷

135. Later in 2015, journalists at *InsideClimate News* reported the fact that ExxonMobil had superior knowledge of the causes and potential consequences of climate change and the role its products played in causing climate change as far back as the 1970s.¹¹⁸ These journalists uncovered ExxonMobil's superior knowledge through an exhaustive investigation of thousands of archived documents and through interviews with former ExxonMobil employees.

136. Also in 2015, several journalists at the Energy and Environment Reporting Project at Columbia University's Graduate School of Journalism and the *Los Angeles Times* also exposed the fact that ExxonMobil and others had superior knowledge of the causes and potential consequences of climate change and the role their products played in causing climate change as

¹¹⁷ Dossier #1—Soon Contracts.

¹¹⁸ *InsideClimate News* published a series of nine articles between September and December 2015 following an eight-month investigation. *Exxon, The Road Not Taken*, InsideClimate News, <https://insideclimatenews.org/content/Exxon-The-Road-Not-Taken> [<https://perma.cc/5VTL-PZGH>].

far back as the 1970s.¹¹⁹ These journalists uncovered ExxonMobil's superior knowledge through an exhaustive investigation of archived documents, through interviews with former ExxonMobil employees, and through a review of scientific journals.

137. In 2017, the Center for International Environmental Law issued a report that revealed that Defendants, including API, had superior knowledge of the causes and potential consequences of climate change and the role their products played in causing climate change.¹²⁰

138. These reports revealed, for the first time, that Defendants had superior knowledge of climate-change science, the role their products played in climate change, the consequences of climate change, and the need for urgent action at times when they were making or perpetrating misleading statements about the same.

MINNESOTA HAS SUFFERED HARM DUE TO CLIMATE CHANGE

Rising Temperatures

139. Minnesota is warming rapidly. In Minneapolis and St. Paul, Minnesota's largest cities, annual average temperatures increased by 3.2° F from 1951 to 2012, which was faster than both national and global rates of increase.¹²¹ Statewide, temperatures have increased 1° to 3° F.¹²² Winter temperatures have been warming 13 times faster than summer temperatures.¹²³ The graph below shows that temperatures in recent decades have been rising even more quickly.

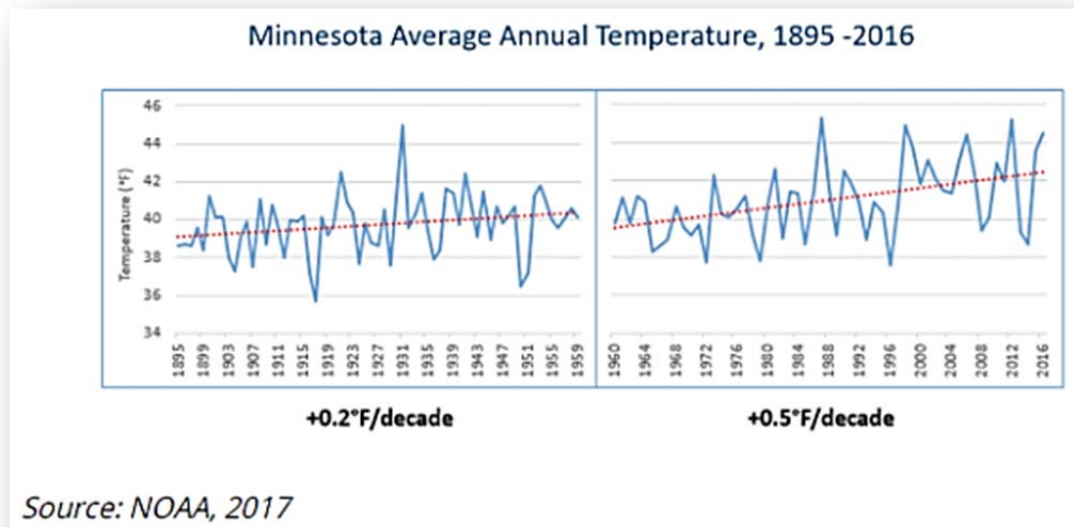
¹¹⁹ The *Los Angeles Times* published a series of three articles between October and December 2015: Katie Jennings et al., *How Exxon went from leader to skeptic on climate change research*, *Los Angeles Times* (Oct. 23, 2015); Jerving 2015; Lieberman & Rust 2015.

¹²⁰ Smoke and Fumes.

¹²¹ Minn. Pollution Control Agency, *Effects of climate change in Minnesota*, <https://www.pca.state.mn.us/air/effects-climate-change-minnesota> [<https://perma.cc/Q4LY-4UT6>] (hereinafter MPCA climate effects).

¹²² *Id.*

¹²³ Minn. Dept. of Nat. Res., *Climate trends: Cold weather warming*, https://www.dnr.state.mn.us/climate/climate_change_info/climate-trends.html [<https://perma.cc/TH43-26JT>].



140. Extreme heat in urban centers like Minneapolis and St. Paul can cause dangerous living conditions.¹²⁴ Data from the Minnesota Department of Health show that between 2000 and 2017 there were over 12,000 emergency department visits¹²⁵ and nearly 60 deaths¹²⁶ directly attributable to heat exposure. Those living in poverty and people of color are particularly vulnerable to extreme heat events.¹²⁷ Additionally, “[p]regnant women exposed to high temperatures or air pollution are more likely to have children who are premature, underweight or

¹²⁴ David Hondula et al., *Geographic dimensions of heat-related mortality in seven U.S. cities*, *Environ. Res.* 138, 439-52 (2015).

¹²⁵ Minn. Dept. of Health, *Heat-related illness emergency department visits*, https://data.web.health.state.mn.us/web/mndata/heat_ed [<https://perma.cc/W9WX-9UAV>].

¹²⁶ Minn. Dept. of Health, *Heat-related deaths*, https://data.web.health.state.mn.us/web/mndata/heat_deaths [<https://perma.cc/U4N9-H5Q2>].

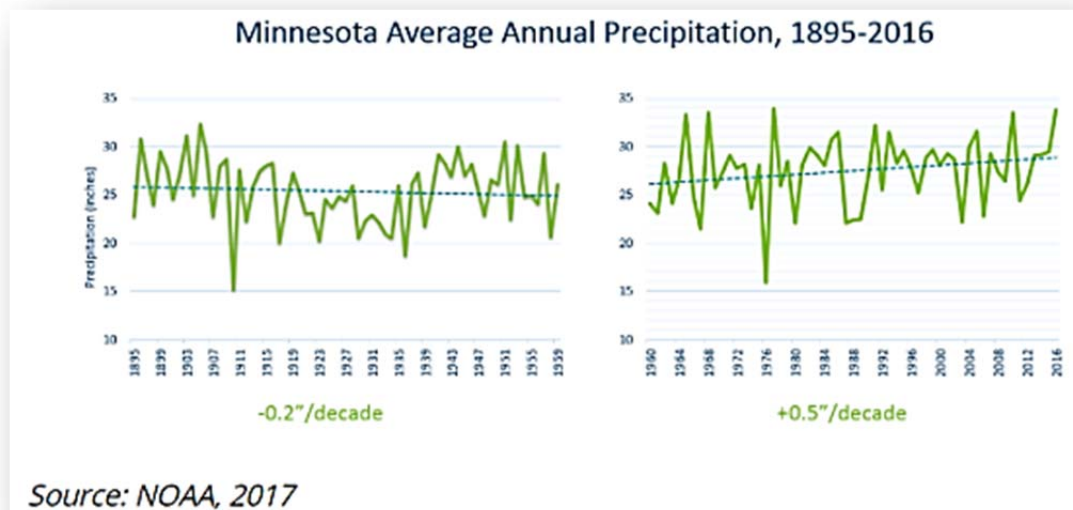
¹²⁷ Minn. Dept. of Health, *Minnesota Climate Change Vulnerability Assessment Summary*, <https://www.health.state.mn.us/communities/environment/climate/docs/mnclimvulnsummary.pdf> [<https://perma.cc/94UG-5LGZ>] (hereinafter Vulnerability Assessment).

stillborn, and African-American mothers and babies are harmed at a much higher rate than the population at large[.]”¹²⁸

141. High temperatures can also lead to crop damage. Corn, in particular, is the number one crop grown in Minnesota (by acreage) and accounts for an estimated \$4.6 billion in production value alone.¹²⁹ Yet corn can be irreparably damaged when temperatures are at or above 95° F for one or more days.¹³⁰

Precipitation and Flooding

142. Dew points have also risen due to climate change, which contributes to increased humidity and average annual precipitation.¹³¹ The graph below shows that precipitation in recent decades has been rising even more quickly.



¹²⁸ Christopher Flavelle, *Climate Change Tied to Pregnancy Risks, Affecting Black Mothers Most*, New York Times (June 18, 2020).

¹²⁹ U.S. Dept. of Agriculture, *2019 State Agriculture Overview: Minnesota*, https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=MINNESOTA [<https://perma.cc/8R9Z-WJEM>].

¹³⁰ MPCA climate effects.

¹³¹ Minn. Dept. of Health, *Climate & Health in Minnesota*, <https://www.health.state.mn.us/communities/environment/climate/climate101.html> [<https://perma.cc/Y7C8-AJRU>].

143. Statewide, Minnesota experienced a 42% increase in the heaviest rainfall events (top one percent) between 1901 and 2016.¹³² Minnesota had 10 “Mega-Rain” events between 2000 and 2016.¹³³ A Mega-Rain event is an event “in which six inches of rain covers more than 1000 square miles and the core of the event topped eight inches.”¹³⁴ “[T]he 20 years from 2000-2019 have seen 2.5 times as many mega-rains as the 27 years spanning 1973-1999.” This has led to increased and more damaging flooding. Those living in poverty and people of color are especially vulnerable to flooding.¹³⁵

144. In 2007, 24 counties in Minnesota sought drought designation,¹³⁶ while others were declared flood disasters. Minnesota had never seen simultaneous drought and flood declarations before.¹³⁷ This was repeated in 2012 when 11 counties declared flood emergencies while 55 received drought designations.¹³⁸

145. The 1997 Red River of the North flood in Minnesota, North Dakota, and Southern Manitoba was the most severe flood of that river since 1826, with damages to the region estimated at \$3.5 billion. The State of Minnesota and communities in Minnesota paid for portions of the damage relief not covered by federal disaster relief.

¹³² U.S. Global Change Research Program, Fourth National Climate Assessment at Ch. 2: Our Changing Climate, fig. 2.6 (2018), <https://nca2018.globalchange.gov/> (hereinafter Fourth National Climate Assessment).

¹³³ Minn. Dept. of Nat. Res., *Historic Mega-Rain Events in Minnesota*, https://www.dnr.state.mn.us/climate/summaries_and_publications/mega_rain_events.html [<https://perma.cc/Z9XE-ANXG>].

¹³⁴ *Id.*

¹³⁵ Vulnerability Assessment.

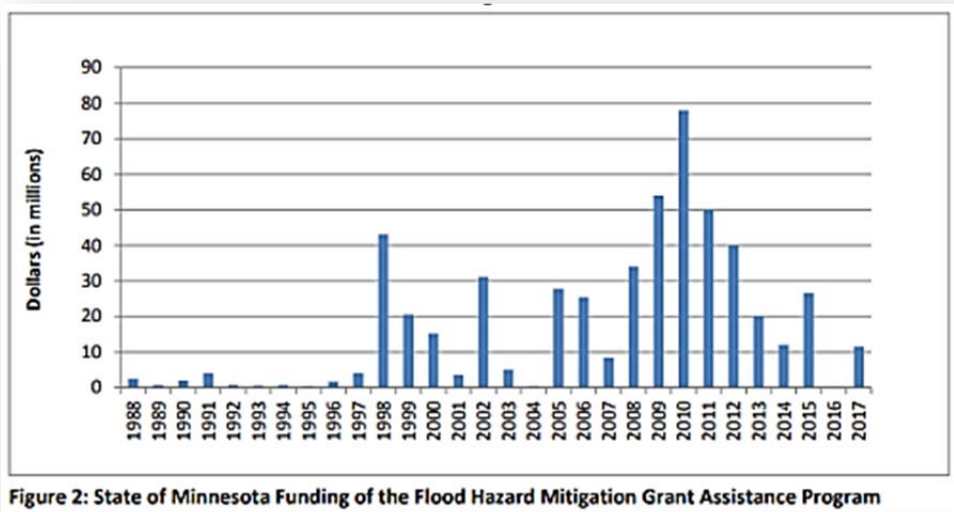
¹³⁶ The Climate Reality Project, *How the climate crisis is affecting Minnesota* (May 7, 2019), <https://www.climateproject.org/blog/how-climate-crisis-affecting-minnesota> [<https://perma.cc/XQ2B-YVET>].

¹³⁷ Minnesota et al., *Clean Power Plan Repeal Comments, Appendix A, Climate Change Impacts A-31* (Oct. 31, 2018).

¹³⁸ *Id.*

146. In 2007, Minnesota provided \$165 million in disaster relief due to flooding; in 2010 the State paid \$80 million, in 2012, \$160 million, and in 2013, another \$4.5 million.¹³⁹ In 2014, the legislature created a disaster contingency account to more quickly provide disaster relief funding.¹⁴⁰ The legislature has appropriated \$82 million into the fund since its creation, but “[b]etween 2018 and 2019 the state received three federal disaster declarations and had 16 gubernatorial disaster declarations,” and the fund now has a projected deficit.¹⁴¹

147. In addition to money spent in response to flooding, since 1987, the Minnesota Flood Hazard Mitigation Grant Assistance Program has appropriated \$510 million of state funds to help local governments implement 365 flood-risk reduction programs.¹⁴² Local governments also contribute to the costs of these projects. The funds have greatly increased since 1997:



¹³⁹ Bill Salisbury & Doug Belden, *Minnesota Legislature OKs \$4.5M in disaster relief in one-day session*, Pioneer Press (Sept. 8, 2013).

¹⁴⁰ Minn. House of Representatives, *Division OKs \$30 million to replenish the state’s disaster contingency account* (Feb. 24, 2020), <https://www.house.leg.state.mn.us/sessiondaily/Story/14095> [<https://perma.cc/TJ7L-D4YU>].

¹⁴¹ *Id.*

¹⁴² Minn. Dept. of Nat. Res., *Minnesota’s Flood Hazard Mitigation Grant Assistance Program* (2018).

148. The economic fallout from heightened flood risk in the Midwest is projected to be at least \$500 million (in 2015 dollars) annually by 2050.¹⁴³ Flooding can result in mass evacuations, damage to buildings, drinking water contamination, injury, and death.¹⁴⁴ Long after flood waters recede, flooded buildings, including homes, can experience mold growth that can trigger asthma attacks and allergies during cleanup efforts.¹⁴⁵

149. Minnesotans in flooded areas also suffer from mental health issues. Mental stress during flooding events can cause substantial health impacts, including sleeplessness, anxiety, depression, and post-traumatic stress disorder.¹⁴⁶

Infrastructure

150. Minnesota has an aging transportation infrastructure¹⁴⁷ that is further stressed by increases in heavy precipitation events and changes in the State's average annual precipitation.¹⁴⁸ The expected continued increase in the frequency and severity of heavy precipitation events will affect access to roads, the viability of bridges, and the safety of pipelines.¹⁴⁹ In addition, heavy rainstorms can result in the temporary closure of roadways and contribute to substantial economic disruptions.

¹⁴³ U.S. Env'tl. Protection Agency, *Multi-Model Framework for Quantitative Sectoral Impacts Analysis: A Technical Report for the Fourth National Climate Assessment* 240 (2017) (hereinafter EPA 2017 Technical Report).

¹⁴⁴ Terry Brennan et al., *Report to the U.S. Environmental Protection Agency on Guidance Documents to Safely Clean, Decontaminate, and Reoccupy Flood-Damaged Houses* (2018).

¹⁴⁵ *Id.*

¹⁴⁶ Carla Stanke et al., *The effects of flooding on mental health: Outcomes and recommendations from a review of the literature*, PLOS Currents Disasters (May 30, 2012).

¹⁴⁷ Minn. Dept. of Trans., *Minnesota's Aging Infrastructure*, http://minnesotago.org/application/files/2215/2181/1386/AgingInfrastructure_final_2018.pdf [https://perma.cc/D3WD-969E].

¹⁴⁸ Fourth National Climate Assessment, Ch. 21: Midwest.

¹⁴⁹ *Id.* Ch. 12: Transportation.

151. Faster water flow caused by extreme rains can erode the bases of bridges, a condition known as scour.¹⁵⁰ Scour may leave bridges vulnerable to damage and failure during flooding by undermining bridge foundations or removing the protection from the abutment slopes.¹⁵¹ The Minnesota Department of Transportation allocates resources to address bridge scour through multiple efforts;¹⁵² those costs will increase due to climate change. The Environmental Protection Agency (EPA) estimates the annual cost of maintaining current levels of service on Midwestern bridges from scour damage from climate change at about \$400 million per year in 2050.¹⁵³

152. EPA estimates that higher temperatures associated with unmitigated climate change would result, by 2090, in U.S. annual road maintenance costs increasing by over \$6 billion (in 2015 dollars) each year.¹⁵⁴ Minnesotans would be responsible for in-state costs.

153. Increased average annual rainfall and the increase in the severity of extreme precipitation events will damage stormwater and sewer systems.¹⁵⁵ Many wastewater systems in the State are located in floodplains to take advantage of gravity-fed flows.¹⁵⁶ Increased flooding will more frequently exceed infrastructure capacity, overwhelming and submerging infrastructure, including pipelines, wastewater pumping stations, and treatment systems.¹⁵⁷ Treatment systems and pumping stations will require upgrades to withstand future conditions. In

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *See, e.g.,* Minn. Dept. of Trans., *Bridge Scour*, <http://dot.state.mn.us/bridge/hydraulics/scour.html> [<https://perma.cc/YM9T-DMDY>].

¹⁵³ EPA 2017 Technical Report.

¹⁵⁴ *Id.*

¹⁵⁵ Fourth National Climate Assessment Ch. 12: Transportation.

¹⁵⁶ Metropolitan Council, *Wastewater System Plan*, 50, <https://metro council.org/METC/files/be/bed2d5b4-9026-485a-a70f-6dfec3559755.pdf> [<https://perma.cc/Y8DT-NTKU>].

¹⁵⁷ Fourth National Climate Assessment Ch. 12: Midwest.

2020, Governor Walz requested \$293 million in the state bonding bill for water infrastructure upgrades needed because of climate change.¹⁵⁸

154. Increased rain intensity can contribute to increased water flows and can cause overflow of stormwater and wastewater systems and discharge of untreated sewage into waterways.¹⁵⁹ Beach closures in Minneapolis reached a record high during the summer of 2019, which was exceptionally rainy, due to *E. coli* and related illnesses.¹⁶⁰ Between 2007 and 2015, the Metropolitan Council spent \$205 million on improvements to reduce the inflow and infiltration of groundwater and stormwater into wastewater systems.¹⁶¹

155. The electricity system is also affected by climate change. One of the most direct energy-security impacts of major storm events is power outages.¹⁶² Power outages result in indirect costs, such as lost business and tax revenue that would otherwise accrue to the State, and health impacts from the loss of electricity and air conditioning.¹⁶³ Minnesota's more frequent storms as a result of climate change will increase these costs.

¹⁵⁸ Tim Pugmire, *Walz: \$293M needed to make water infrastructure more resilient to climate change*, MPR News (Jan. 10, 2020), <https://www.mprnews.org/story/2020/01/10/walz-293-million-needed-to-make-water-infrastructure-more-resilient-to-climate-change> [<https://perma.cc/3GTE-PTP6>].

¹⁵⁹ Metropolitan Council, *2016 Inflow & Infiltration Task Force Report*, (hereinafter 2016 I/I Task Force Report); see also Metropolitan Council, *Local Planning Handbook*, <http://metro council.org/Handbook/Plan-Elements/Reilience.aspx> [<https://perma.cc/WNF9-QY47>] (“A failure to effectively manage capacity for stormwater conveyance systems may lead to sewer overflows and flooding at wastewater treatment facilities.”).

¹⁶⁰ Miguel Otárola, *E. coli leads to record number of beach closures in Minneapolis*, Minneapolis StarTribune (Aug. 14, 2019).

¹⁶¹ 2016 I/I Task Force Report at 11.

¹⁶² Alyson Kenward & Urooj Raja, *Blackout: Extreme Weather, Climate Change and Power Outages*, Climate Central (2014).

¹⁶³ *Id.*; see also Christine Dominianni et al, *Power Outage Preparedness and Concern among Vulnerable New York City Residents*, 95 J. Urban Health 716 (2018).

156. Increased extreme heat days also put stress on the State’s electricity grid, by requiring increased air conditioning. State agencies are playing key roles in overseeing energy assurance and resiliency in Minnesota; climate change will increase the cost to provide these assurances.

Public Health

157. Increased air temperatures and changes to the hydrologic cycle associated with climate change have resulted and will result in public-health impacts for Minnesota. Minnesota has incurred and will continue to incur expenses in planning, preparing for, and treating the public-health impacts associated with climate change. Health impacts of climate change, and associated harms and costs, include impacts from extreme heat, increased challenges with allergies and pollen, asthma, and vector-borne diseases.¹⁶⁴

158. U.S. asthma rates have been trending upwards since 2001.¹⁶⁵ Warmer temperatures due to climate change are predicted to increase ground-level ozone, which contributes to breathing problems.¹⁶⁶ Climate change is also predicted to result in increased

¹⁶⁴ IPCC 5th Assessment, *Human health: impacts, adaptation, and co-benefits*.

¹⁶⁵ Centers for Disease Control & Prevention, *Asthma Prevalence*, https://www.cdc.gov/asthma/data-visualizations/prevalence.htm#anchor_1569598046502 [<https://perma.cc/98SJ-9G9W>].

¹⁶⁶ Yale Climate Connections, *Climate Change is making ground-level ozone pollution worse*, <https://www.yaleclimateconnections.org/2019/04/climate-change-makes-air-pollution-worse/> [<https://perma.cc/E8NS-V4WE>].

wildfires and an increase in the pollen season.¹⁶⁷ These factors, especially a combination of heat and high pollen, are predicted to increase the number of asthma hospitalizations.¹⁶⁸

159. Asthma disproportionately impacts children, women, African-Americans, and people with low incomes.¹⁶⁹ Data from the Minnesota Department of Health's Asthma Program show one in 14 children and one in 13 adults currently have asthma.¹⁷⁰ In Minnesota in 2014, asthma cost an estimated \$669.3 million, including \$614.9 million in direct medical expenses and \$54.3 million in lost work days.¹⁷¹ In 2016, there were 18,200 Emergency Room visits and 1,900 hospitalizations for asthma across Minnesota.¹⁷² In 2017, there were 55 deaths due to asthma.¹⁷³

160. The heat waves and hot weather caused by climate change also exacerbate air pollution.¹⁷⁴ Across Minnesota, data from the Minnesota Pollution Control Agency in 2013 showed that roughly 2,000 to 4,000 deaths, 500 additional hospital stays, and 800 emergency room visits were partly attributable to air pollution from ozone and particulate matter.¹⁷⁵

¹⁶⁷ Centers for Disease Control & Prevention, *Climate Change Decreases the Quality of the Air We Breathe*, https://www.cdc.gov/climateandhealth/pubs/AIR-QUALITY-Final_508.pdf [<https://perma.cc/SF6N-JKWL>].

¹⁶⁸ Sabit Cakmak et al., *Does air pollution increase the effect of aeroallergens on hospitalization for asthma?* 129 J. Allergy Clin. Immunol. 228-31 (2012).

¹⁶⁹ Minn. Dept. of Health, *Asthma in Minnesota*, <https://data.web.health.state.mn.us/asthma> [<https://perma.cc/RT6S-ZTV2>].

¹⁷⁰ Minn. Dept. of Health, *Asthma Quick Facts*, <https://www.health.state.mn.us/diseases/asthma/data/quickfacts.html> [<https://perma.cc/8WNE-G6NR>].

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ *Id.*

¹⁷⁴ Rebecca Hersher, *Climate change undercuts air pollution improvements*, MPR News (Apr. 21, 2020), <https://www.mprnews.org/story/2020/04/21/npr-climate-change-undercuts-air-pollution-improvements> [<https://perma.cc/9ANL-8CM5>].

¹⁷⁵ David Bael & Kathy Raleigh, *Life and Breath: How Air Pollution Affects Health in Minnesota* (June 2019).

161. Vulnerable populations such as the disabled, the elderly, children, people who live alone, people of color, and less-resourced communities are more likely to suffer health effects from higher air temperatures, flooding, and air pollution.¹⁷⁶

162. Climate change is expected to shift the geographic range and the distribution of disease-carrying insects and pests, exposing more Minnesotans to ticks that carry Lyme disease and mosquitoes that transmit viruses such as West Nile.¹⁷⁷ Incidence of tick-borne illness (Lyme, babesiosis, and human anaplasmosis) in Minnesota increased 742% over a 16-year period, from 278 cases in 1996 to 2,063 cases in 2011.¹⁷⁸ In Minnesota, increasing temperatures and the expected accompanying changes in seasonal patterns are expected to result in earlier seasonal tick activity and an expansion in tick habitat range, increasing the risk of human exposure to ticks.¹⁷⁹

163. West Nile virus is the leading cause of mosquito-borne disease in the United States.¹⁸⁰ Climate change will impact the incidence of this potent virus.¹⁸¹ The Minnesota Department of Health details the fluctuating course of West Nile Virus disease with 821 cases from 2002 to 2018.¹⁸² According to the projections of the Fourth National Climate Assessment:

¹⁷⁶ IPCC 5th Assessment at 717.

¹⁷⁷ Fourth National Climate Assessment Ch. 21: Midwest, at 899.

¹⁷⁸ Stacie J. Robinson et al., *Disease Risk in a Dynamic Environment: The Spread of Tick-borne Pathogens in Minnesota, USA*, 12 *Ecohealth* 152-63 (2015).

¹⁷⁹ Igor Dumic & Edson Severnini, *Ticking Bomb: The Impact of Climate Change on the Incidence of Lyme Disease*, *Can. J. Infect. Dis. Med. Microbiol.* 1-10 (2018).

¹⁸⁰ Centers for Disease Control and Prevention, *West Nile Virus*, <https://www.cdc.gov/westnile/index.html> [<https://perma.cc/Z96D-8U3Q>].

¹⁸¹ Charles B. Beard et al., U.S. Global Change Research Program, *Ch. 5: Vectorborne Diseases*, at fig. 5.3, West Nile Virus, <http://dx.doi.org/10.7930/J0765C7V> [<https://perma.cc/VN8T-4FVK>].

¹⁸² Minn. Dept. of Health, *Reported Cases of West Nile Virus Disease in Minnesota by Year, 2002-2018 (n=821)*, <https://www.health.state.mn.us/diseases/westnile/casesyear.pdf> [<https://perma.cc/7KUR-9MZY>].

Annual national cases of West Nile neuroinvasive disease are projected to more than double by 2050 due to increasing temperatures, among other factors, resulting in approximately \$1 billion per year in hospitalization costs and premature deaths under a higher [emissions] scenario []. In this same scenario, an additional 3,300 cases and \$3.3 billion in costs (in 2015 dollars) are projected each year by the end of the century. Approximately half of these cases and costs would be avoided under a lower [emissions] scenario [].¹⁸³

Ecosystem Harm

164. Minnesota contains large acreages of state forests¹⁸⁴ and state parks¹⁸⁵ that provide significant economic, ecological, and recreation benefits to the State's population.¹⁸⁶ These forest resources are being and will continue to be impacted by climate change.¹⁸⁷ Climate-change-driven shifts in precipitation patterns, altered disturbance regimes, and increased frequency of late-season moisture stress amplify the effects of existing forest stressors such as invasive species, insect pests, and plant diseases.¹⁸⁸

165. As just one example, "As of 2017, the Minnesota Department of Natural Resources Forest Health Unit reported that more than 440,000 acres of tamarack were in some stage of infestation by the eastern larch beetle."¹⁸⁹

The absence of an obligatory overwintering period, combined with longer growing seasons brought by warming temperatures, may allow for multiple generations per year on a consistent basis. This switch in life history results in

¹⁸³ Fourth National Climate Assessment Chapter 14: Human Health.

¹⁸⁴ Minn. Dept. of Nat. Res., *State Forest Map*, https://www.dnr.state.mn.us/state_forests/map.html [<https://perma.cc/Q6Q2-NW6N>].

¹⁸⁵ Minn. Dept. of Nat. Res., *State Park Map*, https://www.dnr.state.mn.us/state_parks/map.html [<https://perma.cc/JW9H-NB83>].

¹⁸⁶ Minn. State Parks, *Strategic Plan 2006-2011*, 7.

¹⁸⁷ Lee Frelich, *Climate Change Impacts in Minnesota: Biological Resources*, slides 39-54 (Jan. 17, 2019), <https://www.house.leg.state.mn.us/comm/docs/4eb2e359-1009-4739-ba16-e601b83d0921.pdf> [<https://perma.cc/PW42-ECKM>].

¹⁸⁸ Chris Swanston et al., *Vulnerability of forests of the Midwest and Northeast United States to climate change*, 146 *Climatic Change* 103-16 (2018).

¹⁸⁹ Jess Hartshorn, *Eastern Larch Beetle Outbreak Keeps Going When Winter's Not So Cold*, *Entomology Today* (2018), <https://entomologytoday.org/2018/04/18/eastern-larch-beetle-outbreak-keeps-going-winter-not-cold/> [<https://perma.cc/5Y5R-RGW2>].

faster spread and increased tree mortality. Warmer winters are also presumably causing less winter mortality for overwintering beetles. In addition to the exploding populations of beetles, warmer winters mean less access for loggers to manage tamarack stands, which typically require frozen ground to operate machinery.¹⁹⁰

Planning Costs

166. Minnesota's natural resource managers are incorporating climate adaptation into land management, taking steps such as increasing the diversity of trees and introducing species suitable for a sustainable climate.¹⁹¹ But planning and implementation actions come at significant cost to the State.¹⁹²

167. The Minnesota Department of Health is planning for the likelihood that more Minnesotans will be seeking emergency help on hotter days.¹⁹³ The State of Minnesota, through the Minnesota Department of Health and local health agencies, has provided public education to some vulnerable communities about central cooling centers where people could go for relief, and has incurred costs educating the public about what to do in extreme heat.¹⁹⁴

168. Minnesota is undertaking extensive planning efforts across state agencies, as well as funding independent research efforts, to assess the State's vulnerability to a broad range of climate change-related impacts and to develop adaptation and resilience strategies.¹⁹⁵

¹⁹⁰ *Id.*

¹⁹¹ Minn. Dept. of Nat. Res., *What DNR is Doing*, https://www.dnr.state.mn.us/climate/climate_change_info/what-dnr-doing.html [<https://perma.cc/B5GE-N579>].

¹⁹² Todd Ontl et al., *Adaptation pathways: ecoregion and land ownership influences on climate adaptation decision-making in forest management*, 146 *Climatic Change* 75-88 (2018).

¹⁹³ Minn. Dept. of Health, *Extreme Heat Toolkit: Preparing Minnesota for Extreme Heat Events* 3-9 https://www.health.state.mn.us/communities/environment/climate/docs/toolkit_chapter3.pdf [<https://perma.cc/XT6E-3QSW>].

¹⁹⁴ Minn. Dept. of Health, *Extreme Heat Events*, <https://www.health.state.mn.us/communities/environment/climate/extremeheat.html>.

¹⁹⁵ Minn. Pollution Control Agency, *Adapting to Climate Change in Minnesota* (2017).

169. Since 2009, 15 state departments and agencies have been collaborating on climate adaptation through the Interagency Climate Adaptation Team, including sharing information on the hundreds of agency research and planning projects that help Minnesota evaluate, analyze, mitigate, and adapt to climate change.¹⁹⁶

170. According to a survey completed by the Minnesota Pollution Control Agency in 2016, 17.5% of state agencies, local units of government, and tribal governments have at least one type of plan or planning effort that addresses climate adaptation.¹⁹⁷

171. By mid-century, without mitigation, the Midwest is projected to experience substantial loss of life, worsened health conditions, and economic impacts estimated in the billions of dollars as a result of climate change.¹⁹⁸

DEFENDANTS' CAMPAIGN OF DECEPTION LED TO INCREASED PURCHASE AND CONSUMPTION OF FOSSIL FUELS, AND EXACERBATED THE COSTS OF ADAPTING TO AND MITIGATING THE ADVERSE IMPACTS OF THE CLIMATE CRISIS, WHICH HAS HARMED MINNESOTA

172. By 1982, Defendants recognized that there was broad consensus among scientists that human-caused climate change had the potential for catastrophic consequences. Defendants knew that burning fossil fuels was the primary cause of increasing concentrations of greenhouse gases in the atmosphere and they knew that reduction of greenhouse-gas emissions had to occur quickly in order to mitigate these catastrophic consequences. Defendants did not publicize this knowledge and instead affirmatively concealed it by publishing contradictory statements.

173. Consumers and the public typically rely on the type of information disseminated by Defendants (either directly or through outside organizations) when making decisions about purchasing or demanding regulation of potentially harmful products.

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ Fourth National Climate Assessment Ch. 21: Midwest.

174. Defendants' efforts to deceive regarding the consequences of the normal use of their fossil-fuel products; their efforts to conceal the hazards of those products from consumers; their promotion of their fossil-fuel products despite knowing the dangers associated with those products; their dogged campaign against regulation of those products based on falsehoods, omissions, and deceptions; and their failure to pursue less hazardous alternative products available to them unduly inflated the market for fossil-fuel products. Consequently, substantially more greenhouse gases have been emitted to the environment than would have been absent that conduct.

175. Defendants' conduct caused a substantial portion of global atmospheric greenhouse-gas concentrations, and the attendant historical, projected, and committed disruptions to the environment—and consequent injuries to Minnesota—associated therewith.

176. Delayed efforts to curb anthropogenic greenhouse-gas emissions have increased environmental harms and increased the magnitude and cost to address harms, including to Minnesota, that have already occurred or are locked in by previous emissions. As greenhouse-gas pollution accumulates in the atmosphere, some of which does not dissipate for potentially thousands of years (namely CO₂), climate changes and consequent adverse environmental changes compound, and their frequencies and magnitudes increase. As those adverse environmental changes compound and their frequencies and magnitudes increase, so too do the physical, environmental, economic, and social injuries resulting therefrom.

177. Therefore, Defendants' campaign to obscure the science of climate change so as to protect and expand the use of fossil fuels greatly increased and continues to increase the harms and rate of harms suffered by Minnesota and its residents. Defendants, individually and together, have substantially contributed to Minnesota's climate crisis-related injuries.

178. Despite Defendants' knowledge of the foreseeable, measurable, and significant harms associated with the unabated consumption and use of their fossil-fuel products, and despite Defendants' knowledge of technologies and practices that could have helped to reduce the foreseeable dangers associated with their fossil-fuel products, Defendants continued to wrongfully market and promote heavy fossil-fuel use and mounted a campaign to obscure the connection between their fossil-fuel products and the climate crisis, dramatically increasing the cost of abatement, including in Minnesota.

179. Despite their knowledge of the foreseeable harms associated with the consumption of Defendants' fossil-fuel products, and despite the existence and fossil-fuel industry knowledge of opportunities that would have reduced the foreseeable dangers associated with those products, Defendants wrongfully and falsely promoted, campaigned against regulation of, and concealed the hazards of use of their fossil-fuel products.

180. As a result of Defendants' campaign of deception, consumers did not change fossil-fuel consumption behavior in the same manner that they would have if Defendants had not obfuscated the scientific consensus, the potential for catastrophic consequences, the role of Defendants' products, and the need to act quickly.

181. If consumer behavior had changed sooner, fewer greenhouse gases would have been emitted through the use of Defendants' products. These additional greenhouse gases have accelerated the rate of climate change.

182. The consequences of climate change would have been delayed and/or reduced if consumers and the public had not been deceived about the true harms posed by consuming fossil-fuel products.

183. This accelerated rate of climate change has led to more harm suffered by Minnesota. Defendants' misleading statements and deceptive practices, directly and through other organizations, have contributed to and exacerbated Minnesota's climate-change injuries.

CLAIMS FOR RELIEF

COUNT I: PREVENTION OF CONSUMER FRAUD ACT VIOLATION (AGAINST ALL DEFENDANTS)

184. Minnesota realleges and incorporates by reference paragraphs 1-183 of this Complaint.

185. Minnesota Statutes, section 325F.69, subdivision 1, provides:

The act, use, or employment by any person of any fraud, false pretense, false promise, misrepresentation, misleading statement or deceptive practice, with the intent that others rely thereon in connection with the sale of any merchandise, whether or not any person has in fact been misled, deceived, or damaged thereby, is enjoined as provided in section 325F.70.

186. Defendants are "persons" within the meaning of Minn. Stat. § 325F.69.

187. Fossil fuels are "merchandise" within the meaning of Minn. Stat. § 325F.69.

188. Defendants repeatedly violated Minnesota Statutes, section 325F.69, subd. 1, by using fraud, false pretense, false promise, misrepresentation, misleading statements, or deceptive practices in the connection with the sale of fossil fuels in Minnesota.

189. Defendants also repeatedly violated Minnesota Statutes, section 325F.69, subd. 1, by omitting material information in the course of marketing and selling their products in Minnesota such that their failures to sufficiently disclose such material information constituted deceptive and fraudulent practices.

190. Defendants made these fraudulent, false, and misleading statements and omissions with the intent that others rely on them in connection with the sale of fossil fuels.

191. Fossil-fuel consumers are "others" within the meaning of Minn. Stat. § 325F.69.

192. The general public are “others” within the meaning of Minn. Stat. § 325F.69.

193. Regulators and policy makers are “others” within the meaning of Minn. Stat. § 325F.69.

194. There is a causal nexus between Defendants’ deceptive and fraudulent conduct, representations, and material omissions described in this Complaint and the harm incurred by the State and its residents.

195. Defendants’ conduct, practices, actions, and material omissions described in this Complaint constitute multiple, separate violations of Minnesota Statutes, section 325F.69.

196. Defendants engaged in a civil conspiracy with each other, with organizations not directly engaged in the sale of fossil-fuel products, and with individuals to mislead the public and decision makers about the consequences of using their products. Defendants are jointly and severally liable, along with other co-conspirators, for that conspiratorial conduct and for the resulting harm suffered by the State as a result of their conspiracy.

197. The State and Minnesotans have conferred a benefit upon Defendants by paying for the costs of the harms caused by Defendants’ improper and unlawful practices. Defendants knowingly accepted and retained such benefits. Further, Defendants have failed to pay for the consequences of their unlawful conduct.

198. Because of the conduct, practices, actions, and material omissions described in this Complaint, Defendants obtained enrichment they would not otherwise have obtained. The enrichment was without justification and the State lacks an adequate remedy provided by law.

**COUNT II: FAILURE TO WARN – STRICT AND NEGLIGENT LIABILITY
(AGAINST ALL DEFENDANTS EXCEPT AMERICAN PETROLEUM INSTITUTE)**

199. Minnesota realleges and incorporates by reference paragraphs 1-183 of this Complaint.

200. A manufacturer has a duty to warn end users of a dangerous product if it is reasonably foreseeable that an injury could occur in its use. Where the manufacturer has actual or constructive knowledge of danger to users, the manufacturer has a duty to give warning of such dangers.

201. The injuries that Minnesotans and the state of Minnesota are experiencing—and will experience—were well known to the Defendants because Defendants’ own scientists predicted them decades ago. Defendants had actual knowledge of the danger that continuing to consume fossil fuels would have for climate change, the catastrophic effects of climate change, and the need to act urgently to address it or lose the ability to prevent the consequences from coming about.

202. Given Defendants’ actual knowledge of the injury that would result from the use of fossil fuels, it was not *merely* reasonably foreseeable that an injury could occur. Instead, the injuries that Minnesota and Minnesotans are experiencing now are the types of injuries that Defendants knew the use of their products would bring about.

203. Given their knowledge of the likelihood of injury from the use of their products, Defendants had a duty to give warning of the injuries they knew their products were going to cause. Yet they did not.

204. Defendants instead worked to undermine any warning by affirmatively misrepresenting the hazardous nature of their products by fraud, false and misleading statements, and omission. Defendants affirmatively took steps to undermine legitimate science highlighting the danger of purchasing and consuming their products, thereby engaging in a conspiracy to deceive consumers and the public about the certainty of the science of climate change, the role

that their products play in causing climate change, the consequences of continued unabated fossil-fuel emissions, and the need to act quickly.

205. When they opted to speak, Defendants took on the additional duty of speaking truthfully and fully, such as by warning consumers of the harms that they knew their products posed. They did not speak truthfully, and they did not warn of the known hazards that their products posed to consumers.

206. Defendants engaged in a civil conspiracy with each other, with organizations not directly engaged in the sale of fossil-fuel products, and with individuals to mislead the public and decision makers about the consequences of using their products. Defendants are jointly and severally liable, along with other co-conspirators, for that conspiratorial conduct and for the resulting harm suffered by the State as a result of their conspiracy designed to prevent warnings to consumers.

207. Defendants failed to exercise ordinary care after discovering the hazards that their products presented to the public, and their repeated attempts to obfuscate the science were not the result of honest misjudgment.

208. Defendants' failure to exercise ordinary care by warning the public of the hazard that burning fossil fuels would cause is the proximate cause of climate-change injury to Minnesotans and the State.

209. Defendants' acts constitute deliberate disregard for the rights or safety of others. Defendants had actual knowledge of the facts and intentionally disregarded them, creating a high probability of injury to the rights of others. They deliberately proceeded to act in conscious or intentional disregard of, or with indifference to, the rights of others.

210. The State and Minnesotans have conferred a benefit upon Defendants by paying for the costs of the harms caused by Defendants' improper and unlawful practices. Defendants knowingly accepted and retained such benefits. Further, Defendants have failed to pay for the consequences of their unlawful conduct.

211. Because of the conduct, practices, actions, and material omissions described in this Complaint, Defendants obtained enrichment they would not otherwise have obtained. The enrichment was without justification and the State lacks an adequate remedy provided by law.

**COUNT III: FRAUD AND MISREPRESENTATION
(AGAINST ALL DEFENDANTS)**

212. Minnesota realleges and incorporates by reference paragraphs 1-183 of this Complaint.

213. Defendants made misrepresentations of material facts about the certainty and consensus about the science of climate change, the role their products played in causing climate change, the consequences of climate change, and the need to act quickly to mitigate climate change and the harms that it would bring.

214. Defendants knew or should have known that the science of climate change was certain and that there was a scientific consensus about the science and the role of fossil fuels as early as 1982, that the consequences of climate change could be catastrophic, and that we needed to act quickly to mitigate the worst injuries from climate change.

215. Minnesota consumers, regulators, policy makers, and the public relied on these misrepresentations, allowing for the purchase of more fossil-fuel products than otherwise would have occurred.

216. Consumers', regulators', policy makers', and the public's reliance on Defendants' misrepresentations in continuing to purchase and use Defendants' fossil-fuel products was

reasonable because Defendants held themselves out as experts and failed to disclose financial relationships with seemingly independent experts.

217. Minnesota suffered harm and loss of money because of Defendants' misrepresentations.

218. Minnesota did not, and could not have, understood the intentional and deceptive nature of Defendants' statements about climate change until Defendants' superior knowledge during earlier timeframes was revealed by journalists in 2015 and later.

219. Defendants engaged in a civil conspiracy with each other, with organizations not directly engaged in the sale of fossil-fuel products, and with individuals to mislead the public and decision makers about the consequences of using their products. Defendants are jointly and severally liable, along with other co-conspirators, for this conspiratorial conduct and the resulting harm suffered by the State as a result of their conspiracy.

220. The State and Minnesotans have conferred a benefit upon Defendants by paying for the costs of the harms caused by Defendants' improper and unlawful practices. Defendants knowingly accepted and retained such benefits. Further, Defendants have failed to pay for the consequences of their unlawful conduct.

221. Because of the conduct, practices, actions and material omissions described in this Complaint, Defendants obtained enrichment they would not otherwise have obtained. The enrichment was without justification and the State lacks an adequate remedy provided by law.

**COUNT IV: DECEPTIVE TRADE PRACTICES
(AGAINST ALL DEFENDANTS)**

222. Minnesota realleges and incorporates by reference paragraphs 1-183 of this Complaint.

223. Minnesota Statutes section 325D.44, subdivision 1 reads in pertinent part:

A person engages in a deceptive trade practice when, in the course of business, vocation, or occupation, the person:

...

(5) represents that goods or services have sponsorship, approval, characteristics, ingredients, uses, benefits, or quantities that they do not have;

(7) represents that goods or services are of a particular standard, quality, or grade . . . if they are of another;

(13) engages in any other conduct which similarly creates a likelihood of confusion or of misunderstanding.

224. Defendants are “persons” within the meaning of this statute.

225. In the course of their business, vocation, or occupation, Defendants have repeatedly violated Minnesota Statutes section 325D.44, subdivision 1 by engaging in the deceptive trade practices described in this Complaint. Defendants’ deceptive acts and practices have the tendency or capacity to deceive and/or mislead the State and its residents and therefore constitute multiple separate deceptive trade practices.

226. Defendants engaged in conduct that created a likelihood of confusion or misunderstanding about their products by, among other things, engaging in a conspiracy to deceive consumers and the general public about the certainty of the science of climate change, the role that their products play in causing climate change, the consequences of continued unabated fossil-fuel emissions, and the need to act quickly.

227. Defendants also repeatedly violated Minnesota Statutes section 325D.44, subdivision 1 by, among other things, omitting material information in the course of marketing and selling their fossil-fuel products that caused a likelihood of confusion or misunderstanding by failing to sufficiently disclose that consuming their products caused climate change.

228. Defendants’ deceptive practices have exacerbated the harms that the State and its citizens have suffered due to climate change. These harms will continue into the future.

229. Given the nature and quality of the representations that Defendants made, the actual and special knowledge they had, and the other circumstances described in this Complaint, Defendants had a duty to sufficiently disclose all material facts to potential consumers in connection with the sale and marketing of their fossil-fuel products to Minnesotans. Defendants' failure to disclose this material information constitutes additional deceptive trade practices in violation of Minnesota Statutes section 325D.44, subdivision 1.

230. There is a causal nexus between Defendants' deceptive and fraudulent conduct, representations, and material omissions described in this Complaint and the harm incurred by the State and its residents.

231. Defendants' conduct, practices, actions, and material omissions described in this Complaint constitute multiple, separate violations of Minnesota Statutes section 325D.44.

232. Defendants engaged in a civil conspiracy with each other, with organizations not directly engaged in the sale of fossil-fuel products, and with individuals to mislead the public and decision makers about the consequences of using their products. Defendants are jointly and severally liable, along with other co-conspirators, for this conspiratorial conduct and for the resulting harm suffered by the State as a result of their conspiracy.

233. The State and Minnesotans have conferred a benefit upon Defendants by paying for the costs of the harms caused by Defendants' improper and unlawful practices. Defendants knowingly accepted and retained such benefits. Further, Defendants have failed to pay for the consequences of their unlawful conduct.

234. Because of the conduct, practices, actions, and material omissions described in this Complaint, Defendants obtained enrichment they would not otherwise have obtained. The enrichment was without justification and the State lacks an adequate remedy provided by law.

**COUNT V: VIOLATION OF FALSE STATEMENT IN ADVERTISING ACT
(AGAINST ALL DEFENDANTS)**

235. Minnesota realleges and incorporates by reference paragraphs 1–183 of this Complaint.

236. The False Statement in Advertising Act (FSAA) provides:

Any person, firm, corporation, or association who, . . . with intent to increase the consumption [of any merchandise, securities, or service] . . . makes, publishes, disseminates, circulates, or places before the public, or causes, directly or indirectly, to be made, published, disseminated, circulated, or placed before the public, in this state . . . an advertisement of any sort regarding merchandise . . . or anything so offered to the public, for use, consumption, purchase, or sale, which advertisement contains any material assertion, representation, or statement of fact which is untrue, deceptive, or misleading, shall, whether or not pecuniary or other specific damage to any person occurs as a direct result thereof, be guilty of a misdemeanor, and any such act is declared to be a public nuisance and may be enjoined as such.

Minn. Stat. § 325F.67.

237. Fossil fuels are “merchandise” within the meaning of Minnesota Statutes section 325F.67.

238. Defendants repeatedly violated Minnesota Statutes, section 325F.67 by making, publishing, disseminating, circulating, and/or placing before the public advertisements regarding fossil fuels containing material assertions, representations, and/or statements of facts which were untrue, deceptive, and or misleading.

239. Defendants made the aforementioned advertisements with the intent to increase the consumption of fossil fuels.

240. Defendants’ conduct, practices, actions, and material omissions described in this Complaint constitute multiple, separate violations of Minnesota Statutes section 325F.67.

241. Defendants engaged in a civil conspiracy with each other, with organizations not directly engaged in the sale of fossil-fuel products, and with individuals to mislead the public

about the consequences of using their products. Defendants are jointly and severally liable, along with other co-conspirators, for this conspiratorial conduct and for the resulting harm suffered by the State as a result of their conspiracy.

242. Because of the conduct, practices, actions, and material omissions described in this Complaint, Defendants obtained enrichment they would not otherwise have obtained. The enrichment was without justification and the State lacks an adequate remedy provided by law.

REQUEST FOR RELIEF

WHEREFORE, the State of Minnesota, by its Attorney General, Keith Ellison, respectfully asks this Court to award judgment against Defendants as follows:

243. Determine that Defendants' acts described in this Complaint constitute common law fraud, strict and negligent failure to warn, and multiple separate violations of Minnesota Statutes sections 325D.44, 325F.67, and 325F.69;

244. Enjoin Defendants and their employees, officers, directors, agents, successors, assignees, affiliates, merged or acquired predecessors, parent or controlling entities, subsidiaries, and all other persons acting in concert or participation with them from engaging in conduct that violates Minnesota Statutes sections 325D.44, 325F.67, or 325F.69;

245. Order Defendants to disclose, disseminate, and publish all research previously conducted directly or indirectly by themselves or their respective agents, affiliates, servants, officers, directors, employees, and all persons acting in concert with them that relates to the issue of climate change;

246. Order Defendants to fund a corrective public education campaign in Minnesota relating to the issue of climate change, administered and controlled by an independent third party;

247. Award judgment against Defendants for maximum civil penalties pursuant to Minnesota Statutes section 8.31, subdivision 3 for each separate violation of Minnesota law;

248. Award judgment against Defendants for restitution pursuant to Minnesota Statutes section 8.31, Minnesota common law, the *parens patriae* doctrine, and the general equitable powers of this Court to remedy the great harm and injury to the State resulting from Defendants' unlawful conduct;

249. Order ExxonMobil and Koch to disgorge all profits made as a result of their unlawful conduct;

250. Award Minnesota the costs of investigation and this action, attorneys' fees, expert consultant and expert witness fees, and all other costs and disbursements as authorized by Minnesota Statute section 8.31, subd. 3a; and

251. Grant such additional relief as the Court deems just and proper.

JURY DEMAND

The State demands a jury trial for all issues pled herein that are triable by a jury.

Dated: June 24, 2020 _____

KEITH ELLISON
MINNESOTA ATTORNEY GENERAL

/s/ Liz Kramer

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MINN. STAT. § 549.211

ACKNOWLEDGMENT

The party on whose behalf the attached document is served acknowledges through its undersigned counsel that sanctions, including reasonable attorney fees and other expenses, may be awarded to the opposite party or parties pursuant to Minn. Stat. § 549.211 (2020).

Dated: June 24, 2020

/s/ Leigh Currie

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