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**IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON
IN AND FOR THE COUNTY OF KING**

MAKAH INDIAN TRIBE,

Plaintiff,

v.

EXXON MOBIL CORPORATION,
EXXONMOBIL OIL CORPORATION, BP
P.L.C., BP AMERICA INC., CHEVRON
CORPORATION, CHEVRON USA, INC.,
SHELL PLC, SHELL OIL COMPANY,
CONOCOPHILLIPS, CONOCOPHILLIPS
COMPANY, PHILLIPS 66, and PHILLIPS 66
COMPANY,

Defendants.

No. 23-2-25216-1 SEA

COMPLAINT FOR DAMAGES
AND INJUNCTIVE RELIEF

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1 **I. INTRODUCTION**

2 1.1 For decades, ExxonMobil, BP, Shell, Chevron and ConocoPhillips
3 (“Defendants”) have misled consumers and the public about the central role of fossil fuels in
4 causing climate change. Since at least the 1950s, their own scientists have consistently concluded
5 that fossil fuels produce carbon dioxide and other greenhouse gas pollution that increases global
6 temperatures, destabilizing the climate and causing catastrophic consequences for the planet and
7 its people. The industry has taken these internal scientific findings seriously, investing heavily
8 to protect its own assets and infrastructure from rising seas, stronger storms, and other climate
9 change impacts. But rather than warn consumers and the public about these dangers, fossil fuel
10 companies and their surrogates have for decades pushed disinformation to discredit the scientific
11 consensus on climate change; to create doubt in the public’s mind about the climate-disruptive
12 impacts of burning fossil fuels; and to delay the energy economy’s transition to a lower-carbon
13 future. This successful climate deception campaign has had the purpose and effect of inflating
14 and sustaining the market for fossil fuels, which—in turn—has driven up greenhouse gas
15 emissions, accelerated global warming, and brought about devastating climate change impacts
16 to the Makah Tribe and its reservation that continue unabated today.

17
18
19 1.2 Defendants’ promotion and sale of fossil fuels has exploded since the Second
20 World War, as have carbon dioxide (“CO₂”) and other emissions from those products. Fossil
21 fuel emissions—especially CO₂—are far and away the dominant driver of global warming.¹ The
22

23
24
25 ¹ See Intergovernmental Panel on Climate Change (“IPCC”), *Summary for Policymakers in*
26 *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I in the Sixth*
Assessment Report (2021), at 4–9,
https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf.

1 substantial majority of all anthropogenic (human-caused) greenhouse gas emissions in history
2 have occurred from the 1950s to the present, a period known as the “Great Acceleration.”² About
3 three-quarters of all industrial CO₂ emissions in history have occurred since the 1960s,³ and more
4 than half have occurred since the late 1980s. The annual rate of CO₂ emissions from extraction,
5 production, and consumption of fossil fuels has increased substantially since 1990.⁴
6

7 1.3 Defendants’ awareness of the negative impacts of fossil fuel consumption almost
8 exactly tracks the onset of the Great Acceleration. Defendants have known since at least the
9 1950s that fossil fuels produce carbon dioxide and other greenhouse gas (“GHG”) pollution that
10 would warm the planet and destabilize our climate. Defendants’ own scientists advised the
11 companies repeatedly, starting as early as the 1950s, that climate impacts could be catastrophic,
12 and that only a narrow window of time existed in which to act before the consequences became
13 catastrophic.
14

15 1.4 Rather than warn the public of these tremendous harms, however, Defendants
16 mounted a disinformation campaign beginning as early as the 1970s to discredit the burgeoning
17 scientific consensus on climate change; deny their own knowledge of climate change-related
18 threats; create doubt about the reality and consequences of the impacts of burning fossil fuels;
19 and delay the necessary transition to a lower-carbon future.
20
21

22
23 ² Will Steffen et al., *The Trajectory of the Anthropocene: The Great Acceleration*, 2 *The*
Anthropocene Review 81, 81 (2015).

24 ³ R.J. Andres et al., *A Synthesis of Carbon Dioxide Emissions from Fossil-Fuel Combustion*, 9
Biogeosciences 1845, 1851 (2012).

25 ⁴ Global Carbon Project, *Global Carbon Budget 2021*,
26 https://www.globalcarbonproject.org/global/images/carbonbudget/Infographic_Emissions2021.pdf.

1 1.5 Defendants have further deceived customers and the public by misrepresenting
2 the climate impacts of their products sold in Washington State and on the Makah Reservation.
3 In a bid to reassure consumers that purchasing these products is good for the planet, Defendants
4 advertise them as “cleaner,” “emissions-reducing,” and the like, while failing to disclose their
5 harmful effects on the climate. This strategy is similar to the Tobacco industry’s advertising
6 playbook, which deceptively promoted “low tar” and “light” cigarettes as healthier smoking
7 options, when the companies knew that any use of cigarettes was harmful. Defendants here
8 likewise falsely present themselves as corporate leaders in the fight against climate change,
9 claiming to invest substantially in low-emission technologies and zero-emission energy sources,
10 while their businesses continue to focus overwhelmingly on fossil fuel production and sales.

12 1.6 Defendants’ deceptive conduct and sophisticated promotion of fossil fuel
13 products without warning of their dangers inflated and sustained demand for fossil fuels and
14 forestalled the move to low- and no-carbon alternatives, resulting in billions of dollars in profits
15 for Defendants.

17 1.7 Yet it is now the Makah Tribe and its citizens who are paying for the effects of
18 Defendants’ misconduct. The Tribe faces existential threats to its people and its land from
19 climate change. The Tribe has already spent millions to deal with climate change-induced
20 disasters and protect its assets from future harms, and will spend many hundreds of millions
21 more. Climate-disruption impacts include those resulting from rising sea levels, heavier rainfall
22 concentrated in fewer months, many more days with extreme heat, drier soil moisture levels,
23 reduced low stream flow levels and elevated high stream flow levels, more frequent and
24 damaging wildfire, more frequent and intense storms and drought, flooding and erosion, human
25
26

1 health effects, especially for the most vulnerable, and much more. The Tribe brings this lawsuit
2 to hold Defendants accountable for their deceptive and unfair conduct, and to pay for the damage
3 their deceptive conduct has caused and will cause for decades to come.⁵
4

5 **II. PARTIES**

6 **A. Plaintiff**

7 2.1. Plaintiff, the Makah Indian Tribe (“Makah Tribe” or “Tribe”), is a federally-
8 recognized sovereign Native Nation that has occupied the lands and surrounding islands and
9 waters of what is now the most northwestern portion of the State of Washington for millennia.
10 The Makah Reservation, which consists of approximately 30,000 acres on northwestern tip of
11 the Olympic Peninsula bordered to the north by the Strait of Juan de Fuca and to the west by the
12 Pacific Ocean and including Tatoosh Island and Waadah Island, was reserved from a portion of
13 the Tribe’s aboriginal territory under the 1855 Treaty of Neah Bay, 12 Stat. 939, and
14 subsequently enlarged through executive orders and statutes. As used herein, “Makah
15 Reservation” includes the Tribe’s treaty reservation, as expanded by executive orders and
16 statutes, together with lands that the United States holds in trust for the Tribe near and contiguous
17 to the Tribe’s treaty reservation. The Tribe brings this action to vindicate its sovereign,
18 proprietary, public trust, and parens patriae rights, to abate a public nuisance, and to recover for
19 injuries to the Tribe’s natural resources, property, and public health.
20
21

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23
24 ⁵ Plaintiff hereby disclaims injuries arising on federal enclaves and those arising from
25 Defendants’ provision of non-commercial, specialized fossil fuel products to the federal
26 government for military and national defense purposes. The Tribe seeks no recovery or relief
attributable to these injuries.

1 **B. Defendants**

2 2.2. This suit concerns the wrongful promotion, marketing, and sale of fossil fuels.
3 Defendants Exxon Mobil Corporation, ExxonMobil Oil Corporation, BP P.L.C., BP America
4 Inc., Chevron Corporation, Chevron USA, Inc., Shell plc, Shell Oil Company, ConocoPhillips,
5 ConocoPhillips Company, Phillips 66, and Phillips 66 Company are multinational oil and gas
6 companies that promote, market, and sell fossil fuels and fossil fuel-based products worldwide,
7 including in Washington. All Defendants are either registered to do business in Washington or
8 have wholly-owned subsidiaries registered to do business in Washington.
9

10 2.3. **Exxon Entities: Exxon Mobil Corporation, ExxonMobil Oil Corporation**

11 a. Defendant **Exxon Mobil Corporation** is a New Jersey corporation
12 headquartered in Irving, Texas. Exxon Mobil Corporation is the parent company of numerous
13 subsidiaries, which explore for, produce, refine, market, and sell fossil fuels worldwide. Exxon
14 Mobil Corporation was formerly known as, did or does business as, and/or is the successor in
15 liability to ExxonMobil Refining and Supply Company, Exxon Chemical U.S.A., ExxonMobil
16 Chemical Corporation, ExxonMobil Chemical U.S.A., ExxonMobil Refining & Supply
17 Corporation, Exxon Company, U.S.A., Exxon Corporation, Standard Oil Company (NJ), and
18 Mobil Corporation.
19

20 b. Exxon Mobil Corporation controls and has controlled whether and to what
21 extent it or its subsidiaries promote, market, or sell fossil fuels. This includes decisions related
22 to climate change and greenhouse gas emissions, marketing its brand and fossil fuels, as well as
23 strategic communications concerning climate change and the role of fossil fuels.
24
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26

1 c. Defendant **ExxonMobil Oil Corporation** is a New York corporation
2 headquartered in Irving, Texas. ExxonMobil Oil Corporation is a wholly owned subsidiary of
3 Exxon Mobil Corporation that acts on Exxon Mobil Corporation's behalf and is subject to Exxon
4 Mobil Corporation's control. ExxonMobil Oil Corporation was formerly known as, did or does
5 business as, and/or is the successor in liability to Mobil Oil Corporation.
6

7 d. Defendants Exxon Mobil Corporation, ExxonMobil Oil Corporation, and
8 their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively
9 referred to herein as "Exxon."

10 2.4. **BP Entities: BP P.L.C., BP America Inc.**

11 a. Defendant **BP P.L.C.** is registered in England and Wales with its principal
12 place of business in London. BP P.L.C. is the parent company of numerous subsidiaries, which
13 explore for, produce, refine, market, and sell fossil fuels worldwide. BP P.L.C. was formerly
14 known as, did or does business as, and/or is the successor in liability to British Petroleum.
15

16 b. BP P.L.C. controls and has controlled whether and to what extent it or its
17 subsidiaries promote, market, or sell fossil fuels. This includes decisions related to climate
18 change and greenhouse gas emissions, marketing its brand and fossil fuels, as well as strategic
19 communications concerning climate change and the role of fossil fuels. BP owns the Cherry
20 Point Refinery in Whatcom County, the largest oil refinery in Washington State.
21

22 c. Defendant **BP America Inc.** is a Delaware corporation headquartered in
23 Houston, Texas. BP America is a wholly owned subsidiary of BP P.L.C. that acts on BP P.L.C.'s
24 behalf and is subject to BP P.L.C.'s control. BP America Inc. was formerly known as, did or
25 does business as, and/or is the successor in liability to Amoco Corporation, Amoco Oil
26

1 Company, ARCO Products Company, Atlantic Richfield Washington Corporation, Atlantic
2 Richfield Company (a Delaware Corporation), BP Exploration & Oil, Inc., BP Products North
3 America Inc., BP Amoco Corporation, BP Amoco Plc, BP Oil, Inc., BP Oil Company, Sohio
4 Oil Company, Standard Oil of Ohio (SOHIO), Standard Oil (Indiana), and The Atlantic
5 Richfield Company (a Pennsylvania Corporation) and its division, the Arco Chemical
6 Company.
7

8 d. Defendants BP P.L.C. and BP America, Inc., together with their
9 predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred
10 to herein as “BP.”

11 2.5. **Chevron Entities: Chevron Corporation, Chevron USA, Inc.**

12 a. Defendant **Chevron Corporation** is a Delaware corporation
13 headquartered in San Ramon, California. Chevron Corporation is the parent company of
14 numerous subsidiaries, which explore for, produce, refine, market, and sell fossil fuels
15 worldwide.
16

17 b. Chevron Corporation controls and has controlled whether and to what
18 extent it or its subsidiaries promote, market, or sell fossil fuels. This includes decisions related
19 to climate change and greenhouse gas emissions, marketing of its brand and fossil fuels, as well
20 as strategic communications concerning climate change and the role of fossil fuels.
21

22 c. Defendant **Chevron U.S.A. Inc.** is a Pennsylvania corporation
23 headquartered in San Ramon, California. Chevron U.S.A. Inc. is a wholly owned subsidiary of
24 Chevron Corporation that acts on Chevron Corporation’s behalf and is subject to Chevron
25 Corporation’s control. Chevron U.S.A. Inc. was formerly known as, did or does business as,
26

1 and/or is the successor in liability to Gulf Oil Corporation, Gulf Oil Corporation of
2 Pennsylvania, Chevron Products Company, and Chevron Chemical Company.

3 d. Defendants Chevron Corporation and Chevron U.S.A. Inc., together with
4 their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively
5 referred to herein as “Chevron.”
6

7 2.6. **Shell Entities: Shell plc, Shell Oil Company**

8 a. Defendant **Shell plc** (formerly Royal Dutch Shell PLC) is incorporated in
9 England and Wales, headquartered in The Hague, Netherlands. Shell plc is the parent company
10 of numerous divisions, subsidiaries, and affiliates, referred to collectively as the “Shell Group,”
11 that engage in all aspects of the fossil fuel industry including exploration, development,
12 extraction, manufacturing and energy production, transport, trading, marketing, and sales.
13

14 b. Shell plc controls and has controlled whether and to what extent it or its
15 subsidiaries promote, market, or sell fossil fuels. This includes decisions related to climate
16 change and greenhouse gas emissions, marketing its brand and fossil fuels, as well as strategic
17 communications concerning climate change and the role of fossil fuels. Shell owned and
18 operated the Shell Anacortes Refinery in Whatcom County prior to 1998, and the Puget Sound
19 Refinery in Skagit County from 1998 to 2021.
20

21 c. Defendant **Shell Oil Company** is a Delaware corporation headquartered
22 in Houston, Texas. Shell Oil Company is a wholly owned subsidiary of Shell plc that acts on
23 Shell plc’s behalf and is subject to Shell plc’s control. Shell Oil Company was formerly known
24 as, did or does business as, and/or is the successor in liability to Deer Park Refining LP, Shell
25 Oil, Shell Oil Products, Shell Chemical, Shell Trading US, Shell Trading (US) Company, Shell
26

1 Energy Services, Texaco Inc., The Pennzoil Company, Shell Oil Products Company LLC, Shell
2 Oil Products Company, Star Enterprise, LLC, and Pennzoil-Quaker State Company.

3 d. Defendants Shell plc, Shell Oil Company, and their predecessors,
4 successors, parents, subsidiaries, affiliates, and divisions are collectively referred to herein as
5 “Shell.”
6

7 2.7. **ConocoPhillips Entities: ConocoPhillips, ConocoPhillips Company, Phillips**
8 **66, Phillips 66 Company**

9 a. Defendant **ConocoPhillips** is incorporated in Delaware and has its
10 principal place of business in Houston, Texas. ConocoPhillips consists of numerous divisions,
11 subsidiaries, and affiliates that execute ConocoPhillips’s fundamental decisions related to all
12 aspects of the fossil fuel industry, including exploration, extraction, production, manufacture,
13 transport, and marketing.

14 b. ConocoPhillips controls and has controlled whether and to what extent it
15 or its subsidiaries promote, market, or sell fossil fuels. This includes decisions related to climate
16 change and greenhouse gas emissions, marketing its brand and fossil fuels, as well as strategic
17 communications concerning climate change and the role of fossil fuels. ConocoPhillips’s most
18 recent annual report subsumes the operations of the entire ConocoPhillips group of subsidiaries
19 under its name. ConocoPhillips has developed and purportedly implements a corporate Climate
20 Change Action Plan to govern climate change decision making across all entities in the
21 ConocoPhillips group.
22

23 c. Defendant **ConocoPhillips Company** is a wholly owned subsidiary of
24 ConocoPhillips that acts on ConocoPhillips’s behalf and is subject to ConocoPhillips’s control.
25
26

1 ConocoPhillips Company is incorporated in Delaware and has its principal office in Bartlesville,
2 Oklahoma. ConocoPhillips Company is registered to do business in Washington.

3 d. Defendant **Phillips 66** is incorporated in Delaware and has its principal
4 place of business in Houston, Texas. It encompasses downstream fossil fuel processing, refining,
5 transport, and marketing segments that were formerly owned and/or controlled by
6 ConocoPhillips. Phillips 66 owns the Ferndale Refinery in Whatcom County.

7 e. Defendant **Phillips 66 Company** is a wholly owned subsidiary of Phillips
8 66 that acts on Phillips 66's behalf and is subject to Phillips 66's control. Phillips 66 Company
9 is incorporated in Delaware and has its principal office in Houston, Texas. Phillips 66 Company
10 is registered to do business in Washington. Phillips 66 Company was formerly known as, did or
11 does business as, and/or is the successor in liability to Phillips Petroleum Company, Conoco,
12 Inc., Tosco Corporation, and Tosco Refining Co.

13 f. Defendants ConocoPhillips, ConocoPhillips Company, Phillips 66, and
14 Phillips 66 Company and their predecessors, successors, parents, subsidiaries, affiliates, and
15 divisions are referred to herein as "ConocoPhillips."

16 2.8. When this Complaint references an act or omission of Defendants, unless
17 specifically attributed or otherwise stated, such references should be interpreted to mean that the
18 officers, directors, agents, employees, or representatives of Defendants committed or authorized
19 such an act or omission, or failed to adequately supervise or properly control or direct their
20 employees while engaged in the management, direction, operation or control of the affairs of
21 Defendants, and did so while acting within the scope of their employment or agency.
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1 **III. JURISDICTION AND VENUE**

2 3.1. This Court has subject matter jurisdiction as this action arises within the Makah
3 Reservation within the State of Washington and this Court is a court of general jurisdiction.

4 3.2. This Court has personal jurisdiction over Defendants pursuant to RCW
5 4.28.185(1)(a)-(b) and RCW 19.86.160 because this complaint arises out of business transacted
6 in Washington and tortious conduct directed at Washington residents, including the Tribe and
7 its citizens.
8

9 3.3. Each Defendant is transacting or has transacted substantial business in
10 Washington; is contracting or has contracted to supply services or things in Washington; has or
11 does derive substantial revenue in Washington or engages in a persistent course of conduct in
12 Washington; had or has interests in, used or uses, or possessed or possesses real property in
13 Washington; and/or caused tortious injury in Washington and has intentionally engaged in
14 conduct aimed at Washington, which has caused harm they knew was likely to be incurred in
15 Washington, including on the Makah Reservation. Each Defendant has sufficient contacts with
16 Washington to give rise to the current action, has continuous and systematic contacts with
17 Washington, and/or has consented either explicitly or implicitly to the jurisdiction of this Court.
18

19 3.4. A significant amount of Defendants' fossil fuels are or have been transported,
20 refined, distributed, promoted, marketed, sold, and/or consumed in Washington, including on
21 the Makah Reservation, from which Defendants derive and have derived substantial revenue.
22 Defendants—directly and through their subsidiaries and/or predecessors-in-interest—supplied
23 substantial quantities of fossil fuels to Washington State during the period relevant to this
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1 litigation. Defendants also market and sell petroleum products, including engine lubricants and
2 motor oils, in Washington, including on the Makah Reservation, through local retailers.

3 3.5. Hundreds of Defendant-branded gas stations serve Washington consumers in the
4 state. Through their various agreements with dealers, franchises, or otherwise, Defendants direct
5 and control the branding, marketing, sales, promotions, image development, signage, and
6 advertising of their branded fossil fuels at their respectively branded gas stations in Washington,
7 including point-of-sale advertising and marketing. Defendants dictate which grades and
8 formulations of their gasoline may be sold at their respectively branded stations. Defendants also
9 maintain websites to direct Washington residents to their nearby retail service stations.
10

11 3.6. Defendants have purposefully directed and continue to purposefully direct their
12 tortious conduct toward Washington by distributing, marketing, advertising, promoting, and
13 supplying fossil fuels in Washington, with knowledge that fossil fuels have caused and will
14 continue to cause climate crisis-related injuries in Washington, including in and on the Makah
15 Reservation.
16

17 3.7. Over the past several decades, Defendants, directly and through their surrogates,
18 have spent millions of dollars on radio, television, outdoor advertisements, and social media sites
19 in the Washington market related to their fossil fuels. As just one example, a December 12, 2003
20 Op-Ed in the Seattle *Post-Intelligencer*, authored by former API and Global Climate Coalition
21 executive William O’Keefe, claimed the “science of climate change” was “far from settled,”
22 relying on a “review” by Willie Soon, who was later exposed as receiving millions of dollars in
23 funding from the oil and gas industry, including at least some of the Defendants here. In the Op-
24 Ed, O’Keefe asserts, falsely, that “Neither I nor anyone else knows whether climate over the
25
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1 course of this century will be a scientific curiosity or a serious ecological threat,” when it was
2 well known for years, throughout the fossil fuel industry, that climate change posed a “serious
3 ecological threat.” Since the 1970’s and continuing today, Defendants have also advertised in
4 print publications circulated widely to Washington consumers, including but not limited to: The
5 Atlantic, The Economist, Fortune Magazine, The New York Times, People, Sports Illustrated,
6 Time Magazine, The Washington Post, Newsweek, and The Wall Street Journal.

8 3.8. As described below, Defendants’ advertising campaigns have concealed and
9 misled consumers about the role of fossil fuels in causing climate change and failed to warn
10 consumers about those hazards. That conduct was and is intended to increase use of fossil fuels
11 in and outside Washington, resulting in the Tribe’s injuries.

12 3.9. Further, as described below, Defendants knew or should have known—based on
13 information passed to them from their internal research divisions, affiliates, trade associations,
14 and industry groups—that their actions in Washington, including on the Makah Reservation, and
15 elsewhere would result in these injuries to the Tribe. The climate effects described herein are
16 direct and foreseeable results of Defendants’ conduct, collectively and individually.

18 3.10. Venue is proper in King County pursuant to RCW 4.12.020 and 4.12.025,
19 and Superior Court Civil Rule 82, because Defendants transact business in King County.

21 IV. FACTS

22 4.1. Part A provides background on the role of fossil fuels in causing global warming.
23 Part B describes Defendants’ knowledge, dating back many decades, that continued use of fossil
24 fuels would cause severe harm in Washington, including on the Makah Reservation, and
25 elsewhere. Part C describes how Defendants not only concealed this information from the public,
26

1 but affirmatively worked to deny or discredit it. Defendants simultaneously acted on that same
2 information to protect their own assets and future profits from the sale of fossil fuels. Part D
3 describes how, to this day, Defendants continue to mislead the public by falsely claiming they
4 offer clean and green fossil fuel products, and are leaders in the transition to clean energy. Part
5 E describes how alternative energy technologies could have replaced or significantly reduced
6 fossil fuel dependence. Part F describes how Defendants' tortious actions are a proximate cause
7 of the Tribe's harms. Part G describes the Tribe's harms, which include damage to property,
8 damage to and loss of natural resources and adverse public health effects.

10 **A. Fossil fuel use since the 1960s accounts for most greenhouse gasses in the**
11 **atmosphere that are causing global warming**

12 4.2. Producing and consuming fossil fuels releases carbon dioxide, methane, and other
13 pollutants into the atmosphere. Called "greenhouse gasses," these pollutants trap heat in the
14 atmosphere, causing global warming. Carbon dioxide is the most prevalent greenhouse gas,
15 while methane is responsible for a third of the warming the Earth has experienced thus far.

16 4.3. As the below graph illustrates, consuming fossil fuels is the principal cause of
17 human emissions of carbon dioxide since the 1950's:
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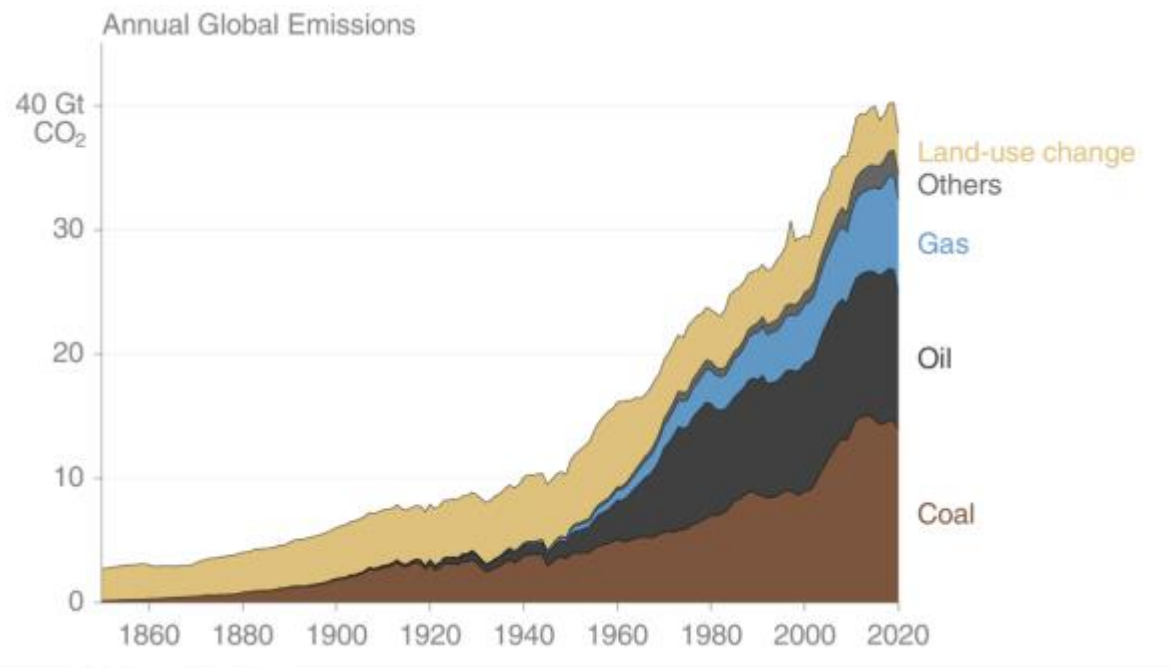


Figure 1: Annual Global Emissions, 1850–2020⁶

4.4. Increased emissions from fossil fuel consumption has led to an increase in the concentration of carbon dioxide in the Earth’s atmosphere. Since 1960, carbon levels in the atmosphere spiked from under 320 parts per million (“ppm”) to approximately 419 ppm.⁷ From 1960 to 1970, atmospheric CO₂ increased by an average of approximately 1 ppm per year. Over the last five years, it has increased by around 2.5 ppm per year.⁸ In other words, as the world consumes more and more fossil fuels, carbon dioxide levels increase at a faster rate. This traps

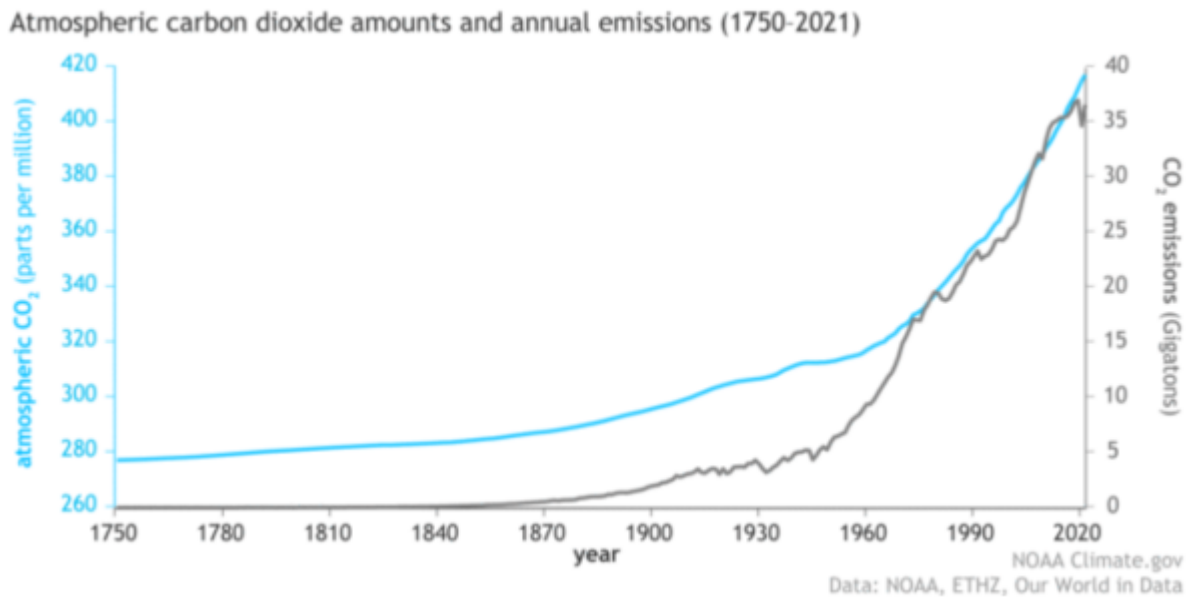
⁶ Global Carbon Project, Global Carbon Budget 2021 83 (Nov. 4, 2021), https://www.globalcarbonproject.org/carbonbudget/archive/2021/GCP_CarbonBudget_2021.pdf

⁷ Global Monitoring Laboratory, Trends in Atmospheric Carbon Dioxide, NOAA (last visited Sept. 30, 2022), https://gml.noaa.gov/dv/data/?parameter_name=Carbon%2BDioxide&type=Insitu

⁸ Global Monitoring Laboratory, Trends in Atmospheric Carbon Dioxide, NOAA (last visited Sept. 30, 2022), https://gml.noaa.gov/dv/data/?parameter_name=Carbon%2BDioxide&type=Insitu

1 ever more heat in the atmosphere and increases the Earth's temperature at a faster pace and to a
2 greater extent.

3 4.5. The graph below illustrates how the rise in human emissions of carbon dioxide
4 is connected to the rise of carbon dioxide levels in the atmosphere:



14 **Figure 2: Atmospheric CO₂ Concentration and Annual Emissions⁹**

15 4.6. Concentrations of greenhouse gases in the atmosphere are now at the highest level
16 in at least three million years.¹⁰

17 4.7. Greenhouse gasses prevent heat from the sun from being radiated back into space.
18 As greenhouse gases accumulate in the atmosphere, they trap more heat. The rise in greenhouse
19 gasses is leading to a rise in global mean temperatures.
20

21
22
23 ⁹ Rebecca Lindsey, Climate Change: Atmospheric Carbon Dioxide, NOAA (June 23, 2022),
24 <https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide>.

25 ¹⁰ Science Daily, More CO₂ Than Ever Before in 3 Million Years, Shows Unprecedented
26 Computer Simulation (Apr. 3, 2019),
<https://www.sciencedaily.com/releases/2019/04/190403155436.htm>.

1 4.8. Global warming has contributed to increasingly devastating wildfires, flooding,
2 droughts, rising temperatures and sea levels, and ocean acidification to the harm and detriment
3 of the Makah Reservation. The health of the citizens of the Makah Tribe has also suffered and
4 will suffer from extreme heat and extreme weather, worsened air quality, and vector-borne
5 illnesses.

6
7 4.9. According to the climate impacts group at the University of Washington, with
8 global warming of at least 1.5 degrees Celsius, by 2050, Washington, including the Makah
9 Reservation, is projected to experience:

10 a. A 67 percent increase in the number of days per year above ninety degrees
11 Fahrenheit, relative to 1976-2005, leading to an increased risk of heat-related illness and death,
12 warmer streams, and more frequent algal blooms;

13
14 b. A decrease of thirty-eight percent in the snowpack, relative to 1970-1999,
15 leading to reduced water storage, irrigation shortages, and winter and summer recreation losses;

16 c. An increase of sixteen percent in winter streamflow, relative to 1970-
17 1999, leading to an increased risk of river flooding;

18 d. A decrease of twenty-three percent in summer streamflow, relative to
19 1970-1999, leading to reduced summer hydropower, conflicts over water resources, and
20 negative effects on salmon populations; and

21
22 e. An increase of one and four-tenths feet in sea level, relative to 1991-2010,
23 leading to coastal flooding and inundation, damage to coastal infrastructure, and bluff erosion.¹¹

24
25 ¹¹ WASH. REV. CODE § 70A.45.020, Intent - 2020 c 79 (2020). Snover, A.K., C.L. Raymond,
26 H.A. Roop, H. Morgan, 2019. No Time to Waste. The Intergovernmental Panel on Climate
Change's Special Report on Global Warming of 1.5°C and Implications for Washington State.
Briefing paper prepared by the Climate Impacts Group, University of Washington, Seattle.

1 4.10. As the next sections describe, most emissions from increasing consumption of
2 fossil fuels have occurred *since* Defendants knew that fossil fuels would cause such harms, yet
3 Defendants did not warn consumers about these risks. Instead, Defendants worked to deceive
4 the public about the role of fossil fuels in causing climate change in order to protect their profits.
5

6 **B. Defendants have known that fossil fuels would cause catastrophic climate change
7 since at least 1959.**

8 4.11. Defendants studied the effects of fossil fuel combustion on climate for decades,
9 developing a sophisticated understanding of climate disruption due to fossil fuel use that far
10 exceeded the knowledge of ordinary consumers.

11 4.12. Defendants knew climate change posed a risk to their fossil fuel business. Internal
12 documents regularly mention these risks.

13 4.13. In 1954, the American Petroleum Institute (API), the industry's main trade
14 association, learned from geochemist Harrison Brown and his colleagues at the California
15 Institute of Technology that fossil fuels had caused atmospheric carbon dioxide levels to increase
16 by about 5% since 1840.¹² API continued to fund measurements of carbon dioxide levels after
17 that, but did not share the results publicly.¹³
18

19 4.14. In 1957, Humble Oil (predecessor-in-interest to ExxonMobil) measured an
20 increase in atmospheric carbon dioxide similar to that measured by Harrison Brown and shared
21 the results with API.
22

23 Updated 02/2019.
24 content/uploads/sites/2/2019/02/NoTimeToWaste_CIG_Feb2019.pdf

[https://cig.uw.edu/wp-](https://cig.uw.edu/wp-content/uploads/sites/2/2019/02/NoTimeToWaste_CIG_Feb2019.pdf)

25 ¹² See Benjamin Franta, Early Oil Industry Knowledge of CO₂ and Global Warming, 8 Nature
26 Climate Change 1024, 1024–25 (2018).

¹³ *Id.*

1 4.15. In 1959, nuclear physicist Edward Teller warned API members, including
2 Defendants, that “a temperature rise corresponding to a 10[%] increase in carbon dioxide will be
3 sufficient to melt the icecap and submerge . . . [a]ll the coastal cities . . . this chemical
4 contamination is more serious than most people tend to believe.”¹⁴

5
6 4.16. In 1965, President Lyndon B. Johnson’s Science Advisory Committee reported
7 that burning fossil fuels was adding carbon dioxide to the Earth’s atmosphere and could lead to
8 uncontrollable and significant changes in the Earth’s climate, and rapid sea-level rise.¹⁵

9 4.17. API promptly discussed this report with its members, stating: “[t]he substance of
10 the report is that there is still time to save the world’s peoples from the catastrophic consequence
11 of pollution, but time is running out.”¹⁶ API’s President emphasized the report’s finding that “the
12 pollution from internal combustion engines is so serious, and is growing so fast, that an
13 alternative nonpolluting means of powering automobiles, buses, and trucks is likely to become
14 a national necessity.”¹⁷

15
16 4.18. API subsequently commissioned research on carbon dioxide pollution from the
17 Stanford Research Institute.¹⁸ In 1968, the SRI scientists informed API that “[p]ast and present
18 studies of CO₂ are detailed and seem to explain adequately the present state of CO₂ in the
19

21 ¹⁴ Edward Teller, Energy Patterns of the Future, in Energy and Man: A Symposium 53–72
(1960).

22 ¹⁵ President’s Science Advisory Committee, Restoring the Quality of Our Environment: Report
23 of the Environmental Pollution Panel 9, 119–24 (Nov. 1965),
<https://hdl.handle.net/2027/uc1.b4315678>.

24 ¹⁶ See Franta, Early Oil Industry Knowledge of CO₂ and Global Warming at 1024–25.

25 ¹⁷ Id.

26 ¹⁸ Elmer Robinson & R.C. Robbins, Sources, Abundance, and Fate of Gaseous Atmospheric
Pollutants, Stanford Rsch. Inst. (Feb. 1968),
<https://www.smokeandfumes.org/documents/document16>.

1 atmosphere.” They warned there was “no doubt” that the “potential damage to our environment
2 could be severe.”¹⁹

3 4.19. In a supplemental report the next year (1969), the Stanford Research Institute
4 projected that, if present fossil fuel consumption trends continued, the concentration of carbon
5 dioxide in the atmosphere would reach 370 parts per million (“ppm”) by 2000. The report
6 explicitly connected the rise in CO₂ levels to the combustion of fossil fuels, finding it “unlikely
7 that the observed rise in atmospheric CO₂ has been due to changes in the biosphere.” The
8 scientists’ projection was accurate. In 2000, the concentration of carbon dioxide in the
9 atmosphere was 369.64 ppm.²⁰

11 4.20. API shared this research with Defendants.

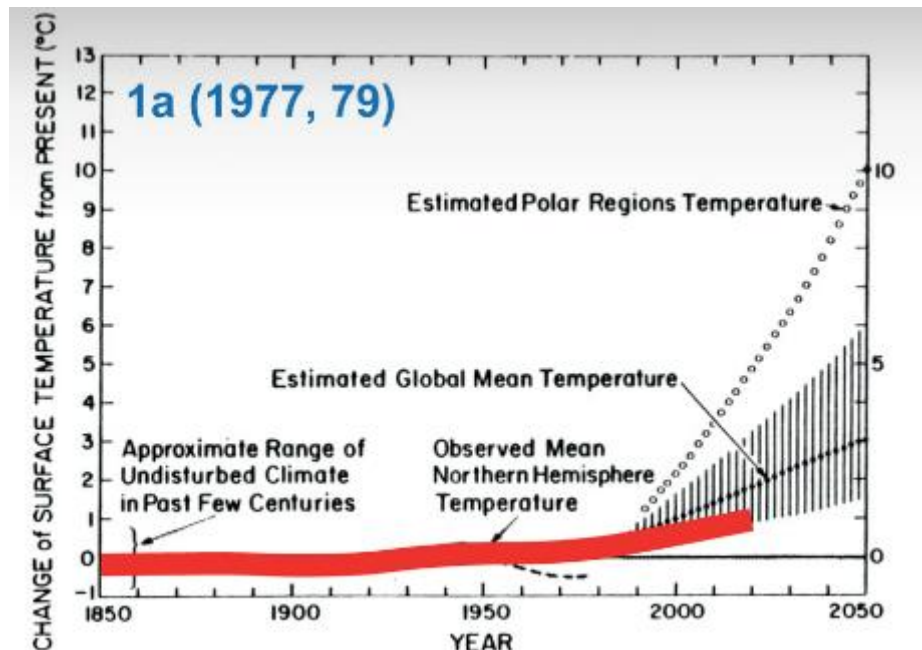
13 4.21. Exxon also researched climate science. In the 1970s and 1980s, Exxon scientists
14 confirmed that burning fossil fuels was the dominant source of carbon dioxide pollution and
15 accurately predicted future concentrations of carbon dioxide and the associated rise in
16 temperature. They briefed management at the highest levels of their findings.

17 4.22. In 1977, James Black, an Exxon scientist, briefed Exxon management that
18 “current scientific opinion overwhelmingly favors attributing atmospheric carbon dioxide
19 increase to fossil fuel consumption,” and doubling atmospheric carbon dioxide would, according
20

24 ¹⁹ Elmer Robinson & R.C. Robbins, Sources, Abundance, and Fate of Gaseous Atmospheric
25 Pollutants Supplement, Stanford Rsch. Inst. (June 1969).

26 ²⁰ NASA Goddard Institute for Space Studies, Global Mean CO₂ Mixing Ratios (ppm):
Observations, <https://data.giss.nasa.gov/modelforce/ghgases/Fig1A.ext.txt>.

1 to the best climate model available, “produce a mean temperature increase of about 2°C to 3°C”
2 by 2050.²¹ Black illustrated this outcome for management:



14 **Figure 3:** Future Global Warming Predicted Internally by Exxon in 1977²²

15 Black’s predictions were correct. In 2023, independent researchers added the red line to Black’s
16 graph, showing that the observed change in temperature closely tracked his 1977 prediction.²³

17 4.23. Black reported to management that projected future fossil fuel use would lead to
18 serious damage, including “more rainfall” that could reduce or destroy the agricultural output of
19

21 ²¹ Letter from J.F. Black, Exxon Research and Engineering Co., to F.G. Turpin, Exxon Research
22 and Engineering Co., The Greenhouse Effect, ClimateFiles (June 6, 1978),
23 <http://www.climatefiles.com/exxonmobil/1978-exxon-memo-on-greenhouse-effect-for-exxon-corporation-management-committee>.

24 ²² Id. The company predicted global warming of 3°C by 2050, with 10°C warming in polar
25 regions. The difference between the dashed and solid curves prior to 1977 represents global
26 warming that Exxon believed may already have been occurring.

²³ G. Supran et al., Assessing ExxonMobil’s global warming projections. Science 379,
eabk0063(2023). DOI:10.1126/science.abk0063.
<https://www.science.org/doi/10.1126/science.abk0063>

1 some countries. Black highlighted the need to make “hard decisions regarding changes in energy
2 strategies” in the next 5-10 years (i.e., before 1987) to avoid these harms.²⁴

3 4.24. In 1979, a confidential Exxon memorandum stated “[t]he most widely held theory
4 [about climate change] is that:

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

10 4.25. The memo highlighted that there was “no practical means” to capture and store
11 carbon emissions and so “dramatic changes in patterns of energy use would be required” to avoid
12 environmental damage. Significantly, the memo said that in order to limit CO₂ emissions to
13 avoid these harms, fossil fuel emissions would have to peak in the 1990s and alternative energies
14 would need to be rapidly deployed. Eighty percent of fossil fuel resources would remain
15 undeveloped; thus “coal and possibly other fossil fuel resources could not be utilized to an
16 appreciable extent.” Certain fossil fuels, such as shale oil, could not be substantially exploited at
17 all.²⁵

18 4.26. Defendants did not follow this path. They developed and refined techniques to
19 recover shale oil, leading to the shale oil and gas boom in the late 2000s.²⁶ And carbon dioxide
20

21
22
23 ²⁴ Id.

24 ²⁵ Letter from W.L. Ferrall, Exxon Research and Engineering Co., to Dr. R.L. Hirsch,
25 Controlling Atmospheric CO₂, Climate Investigations Ctr. (Oct. 16, 1979),
26 <https://www.industrydocuments.ucsf.edu/docs/mqwl0228>.

²⁶ Rapier, Robert. How the Shale Boom Turned the World Upside Down. (April 21, 2017),
<https://www.forbes.com/sites/rrapier/2017/04/21/how-the-shale-boom-turned-the-world-upside-down/?sh=1a721ec677d2>.

1 levels reached 400 ppm in 2015, just five years later than the date Exxon had predicted back in
2 1979.²⁷

3 4.27. In 1979, API and its members, including all Defendants, convened a Task Force
4 to monitor and share cutting edge climate research among the oil industry and to evaluate the
5 implications for their fossil fuel businesses.²⁸

6 4.28. API prepared a background paper on carbon dioxide and climate for the Task
7 Force, stating that carbon levels were rising steadily and would cause global warming. However,
8 the effects of global warming would likely go undetected until 2000 due to a natural cooling
9 trend.²⁹

10 4.29. In 1980, API's Task Force met with Dr. John Laurmann, "a recognized expert in
11 the field of CO₂ and climate," for seven hours.³⁰ Laurmann told the Task Force there was "strong
12 empirical evidence" that rising carbon levels were mainly due to burning fossil fuels and there
13 was a "scientific consensus" that increased carbon levels could cause "large future climatic
14 response[s]." Laurmann projected the following:
15
16
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18

19 ²⁷ Nicola Jones, How the World Passed a Carbon Threshold and Why It Matters, Yale Env't 360
20 (Jan. 26, 2017), <http://e360.yale.edu/features/how-the-world-passed-a-carbon-threshold-400ppm-and-why-it-matters>.

21 ²⁸ Neela Banerjee, Exxon's Oil Industry Peers Knew About Climate Dangers in the 1970s, Too,
22 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>.

23 ²⁹ Memorandum from R.J. Campion to J.T. Burgess, The API's Background Paper on CO₂
24 Effects, Climate Investigations Ctr. (Sep. 6, 1979),
<https://www.industrydocuments.ucsf.edu/docs/lqwl0228>.

25 ³⁰ Letter from Jimmie J. Nelson, American Petroleum Institute, to AQ-9 Task Force, The CO₂
26 Problem; Addressing Research Agenda Development, Climate Investigations Ctr. (Mar. 18,
1980), <https://www.industrydocuments.ucsf.edu/docs/gffl0228>.

1 **LIKELY IMPACTS:**

2 **1° C RISE (2005): BARELY NOTICEABLE**

3 **2.5° C RISE (2038): MAJOR ECONOMIC CONSEQUENCES, STRONG**
4 **REGIONAL DEPENDENCE**

5 **5° C RISE (2067): GLOBALLY CATASTROPHIC EFFECTS**

6 4.30. Laurmann also explained that, while some uncertainty remains, if achieving high
7 market penetration for new energy sources would require a long time, there was “no leeway” for
8 delay. The Task Force planned to research the “market penetration requirements of introducing
9 a new energy source into worldwide use.”³¹

10 4.31. In 1980, Imperial Oil Limited, an Exxon subsidiary, reported to managers and
11 environmental staff at multiple affiliated Esso and Exxon companies that there was “no doubt”
12 that fossil fuels were aggravating the build-up of CO₂ in the atmosphere.³² Further, while it was
13 possible to capture carbon emitted from power plants, “removal of only 50% of the CO₂ would
14 double the cost of power generation.”³³

15 4.32. In 1980, an Exxon manager, Henry Shaw, briefed management on the “CO₂
16 Greenhouse Effect.”³⁴ Shaw’s briefing stated that burning fossil fuels was increasing carbon
17 dioxide levels and this would “most likely” result in global warming of approximately 3°C
18 around the year 2060. Calculations predicting a lower temperature increase were “not held in
19

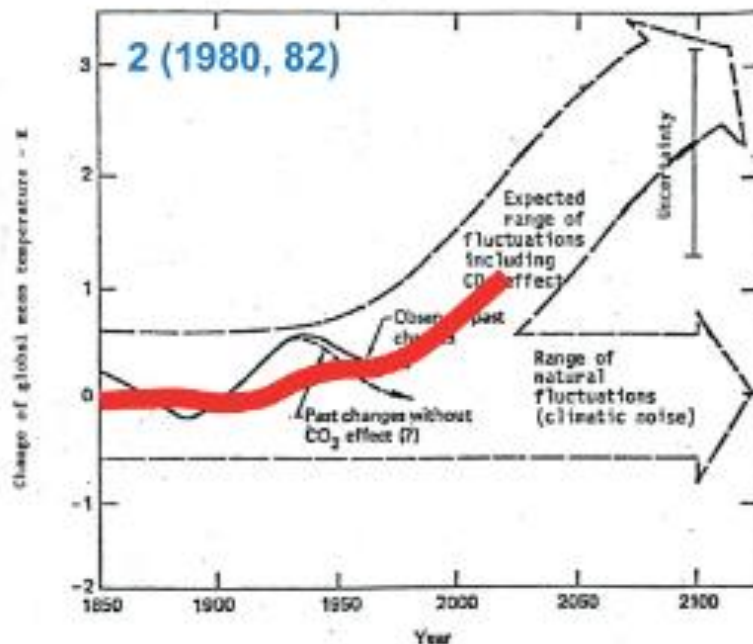
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21 _____
22 ³¹ Id.

23 ³² Imperial Oil Ltd., Review of Environmental Protection Activities for 1978–1979 (Aug. 6,
24 1980), <http://www.documentcloud.org/documents/2827784-1980-Imperial-Oil-Review-of-Environmental.html#document/p2>.

25 ³³ Id.

26 ³⁴ Memorandum from Henry Shaw to T.K. Kett, Exxon Research and Engineering Company’s Technological Forecast: CO₂ Greenhouse Effect (Dec. 18, 1980), <https://www.documentcloud.org/documents/2805573-1980-Exxon-Memo-Summarizing-Current-Models-And.html>.

1 high regard by the scientific community.” While the oceans could absorb some heat, that could
 2 delay (but not prevent) the temperature increase “by a few decades.” Natural climate fluctuations
 3 would hide global warming from carbon emissions until around the year 2000. The future
 4 impacts, however, would be “dramatic,” including greater rainfall, reduced agricultural output,
 5 and sea level rise. The memo included the following illustration, showing that significant global
 6 warming will have already occurred before it exceeded the range of natural “climatic noise”:
 7



19 **Figure 4:** Future Global Warming Predicted Internally by Exxon in 1980³⁵

20 The red line indicates actual observed temperatures following the report.³⁶

23 ³⁵ Id. The company anticipated a doubling of carbon dioxide by around 2060 and that the oceans
 24 would delay the warming effect by a few decades, leading to approximately 3°C warming by the
 25 end of the century.

26 ³⁶ G. Supran et al., Assessing ExxonMobil’s global warming projections. *Science* 379,
 eabk0063(2023). DOI:10.1126/science.abk0063.
<https://www.science.org/doi/10.1126/science.abk0063>

1 4.33. Shaw also reported on Exxon’s research into “the market penetration of non-fossil
2 fuel technologies,” and reported that, all other things being equal, alternative energy “would
3 need about 50 years to penetrate and achieve roughly half of the total [energy] market.”³⁷

4 4.34. Also in 1980, the head of Exxon’s Research and Engineering Company wrote to
5 Exxon’s Senior Vice President, stating in part that: “the greenhouse effect is receiving
6 widespread attention based in part on dramatic claims and dire predictions that are appearing in
7 the popular press. It is being cited, for instance, as an argument in opposition to any major U.S-
8 synfuels program. . . Our data could well influence Exxon's view about the long-term
9 attractiveness of coal and synthetics relative to nuclear and solar energy.”³⁸

10 4.35. In 1981, Exxon staff sent an internal “Scoping Study on CO₂” to management.³⁹
11 The study describes Exxon’s motivations for engaging in climate research. Exxon intended to
12 closely monitor outside research for its own “planning,” acknowledging that predictions of
13 climate models will influence public perception of the problem. Exxon also sought to “enhance
14 the Exxon image and build public relations value.” The study recommends against expanding
15 the climate research program because the current research program was already meeting these
16 goals, noting there was not a current threat to Exxon’s business from legislation. However,
17 because the cost to capture and store carbon was “exorbitant,” “[e]nergy conservation or shifting
18 to renewable energy sources[] represent the only options that might make sense” in the future.⁴⁰

22
23 ³⁷ Id.

24 ³⁸ Exxon’s View and Position on “Greenhouse Effect.” (Jan. 29, 1980)
<https://insideclimatenews.org/wp-content/uploads/2015/09/Letters-to-Senior-VPS-1980.pdf>.

25 ³⁹ Letter from G.H. Long, Exxon Research and Engineering Co., to P.J. Lucchesi et al.,
Atmospheric CO₂ Scoping Study, Climate Investigations Ctr. (Feb. 5, 1981),
26 <https://www.industrydocuments.ucsf.edu/docs/yxfl0228>.

⁴⁰ Id.

1 4.36. Also in 1981, Exxon scientist Roger Cohen warned his colleagues that Exxon’s
2 predictions of future climate impacts “based only on our knowledge of availability and
3 economics [of fossil fuel consumption] become hazardous.” Such a scenario would “produce
4 effects which will indeed be catastrophic (at least for a substantial fraction of the world’s
5 population).”⁴¹

6
7 4.37. In 1981, Exxon stated its position on the growth of carbon dioxide in the
8 atmosphere. According to Exxon, growing fossil fuel consumption will lead atmospheric CO2
9 levels to double, and doubling CO2 levels will lead to a global average temperature rise of 3°C.
10 This will cause “[m]ajor shifts in rainfall/agriculture” and “polar ice may melt.”⁴²

11 4.38. In 1982, API commissioned a report from scientists at Columbia University. The
12 report found that, despite differences in climate model predictions, there was a scientific
13 consensus that doubling carbon levels in the atmosphere would result in an average global
14 temperature rise of about 3°C. The scientists told API that “[s]uch a warming can have serious
15 consequences for man’s comfort and survival since patterns of aridity and rainfall can change,
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23 ⁴¹Memorandum from R.W. Cohen to W. Glass, ClimateFiles (Aug. 18, 1981),
24 [http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emission-
consequences-of-fossil-fuel-consumption](http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emission-consequences-of-fossil-fuel-consumption).

25 ⁴²Memorandum from Henry Shaw to Dr. E.E. David, CO₂ Position Statement, Inside Climate
26 News (May 15, 1981) (footnote omitted), [https://insideclimatenews.org/documents/exxon-
position-co2-1981](https://insideclimatenews.org/documents/exxon-position-co2-1981).

1 the height of the sea level can increase considerably and the world food supply can be affected.”⁴³

2 Exxon’s independent research also confirmed this.⁴⁴

3 4.39. In a confidential primer⁴⁵ on climate change that Exxon circulated to management
4 in 1982, Exxon illustrated how future fossil fuel use would lead carbon levels to rise, along with
5 global temperatures:
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20 ⁴³ American Petroleum Institute, Climate Models and CO2 Warming: A Selective Review and
21 Summary (Columbia Univ., Mar. 1982),
22 [https://assets.documentcloud.org/documents/2805626/1982-API-Climate-Models-and-CO2-](https://assets.documentcloud.org/documents/2805626/1982-API-Climate-Models-and-CO2-Warming-a.pdf)
[Warming-a.pdf](https://assets.documentcloud.org/documents/2805626/1982-API-Climate-Models-and-CO2-Warming-a.pdf).

23 ⁴⁴ See Memorandum from Roger W. Cohen, Exxon Research and Engineering Co., to A.M.
24 Natkin, Exxon Corp. Office of Science and Technology, ClimateFiles (Sept. 2, 1982),
25 [http://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modeling-](http://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modeling-and-co2-greenhouse-effect-research)
26 [and-co2-greenhouse-effect-research](http://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modeling-and-co2-greenhouse-effect-research) (discussing research articles and summarizing the findings
of research in climate modeling).

⁴⁵ Memorandum from M.B. Glaser, CO₂ “Greenhouse” Effect, Exxon Research and Engineering
Company (Nov. 12, 1982), [https://insideclimatenews.org/wp-content/uploads/2015/09/1982-](https://insideclimatenews.org/wp-content/uploads/2015/09/1982-Exxon-Primer-on-CO2-Greenhouse-Effect.pdf)
[Exxon-Primer-on-CO2-Greenhouse-Effect.pdf](https://insideclimatenews.org/wp-content/uploads/2015/09/1982-Exxon-Primer-on-CO2-Greenhouse-Effect.pdf).

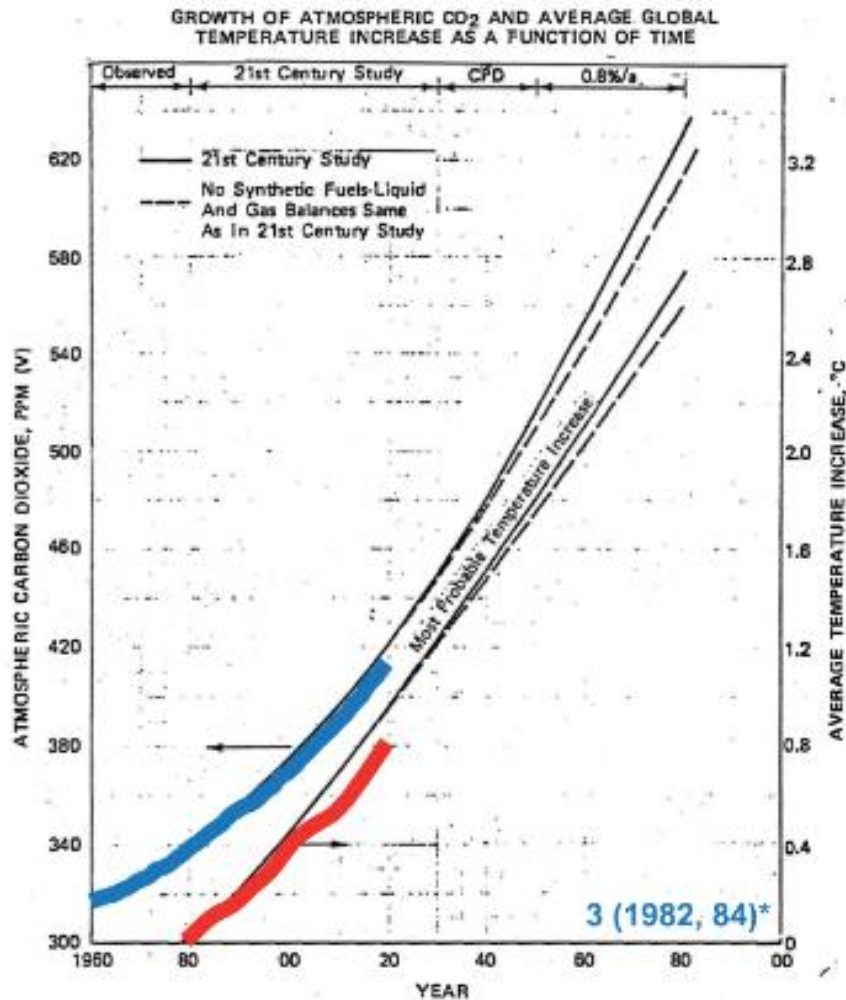


Figure 5: Exxon’s Internal Prediction of Future CO₂ Increase and Global Warming from 1982⁴⁶

Exxon’s predictions were accurate. The blue line represents actual observed carbon levels and the red line shows actual observed temperature increases, closely tracking Exxon’s predictions.

4.40. The primer warned of many climate impacts Exxon had acknowledged in other memos, including “climate related famine,” and “potentially catastrophic effects” such as

⁴⁶ *Id.* The company predicted a doubling of atmospheric carbon dioxide concentrations above preindustrial levels by around 2070 (left curve), with a temperature increase of more than 2°C over the 1979 level (right curve). The same document indicated that Exxon estimated that by 1979 a global warming effect of approximately 0.25°C may already have occurred.

1 melting of the Antarctic ice sheet that would flood Washington, D.C. and the state of Florida.
2 The primer also warned of feedback loops—events triggered by warming that could release
3 massive amounts of greenhouse gasses, leading to even further warming.

4
5 4.41. The primer also estimated that undertaking “[s]ome adaptive measures” (not all
6 of them) would cost “a few percent of the gross national product estimated in the middle of the
7 next century” (i.e., \$400 billion in 2018).⁴⁷ “Mitigation of the ‘greenhouse effect’ would require
8 major reductions in fossil fuel combustion.”⁴⁸

9 4.42. In 1982, the Director of Exxon’s Theoretical and Mathematical Sciences
10 Laboratory, Roger Cohen, wrote Alvin Natkin of Exxon’s Office of Science and Technology
11 stating that “a clear scientific consensus has emerged . . . that a doubling of atmospheric CO2
12 would result in an average global temperature rise of (3.0 ± 1.5) °C. . . . There is unanimous
13 agreement in the scientific community that a temperature increase of this magnitude would bring
14 about significant changes in the earth’s climate. . . . The time required for doubling of atmospheric
15 CO2 depends on future world consumption of fossil fuels.”⁴⁹ Cohen noted that “the results of
16 our [Exxon’s] research are in accord with the scientific consensus on the effect of increased
17 atmospheric CO2 on climate.”
18

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21 ⁴⁷ See Gross National Product, Fed. Reserve Bank of St. Louis (updated Mar. 26, 2020),
<https://fred.stlouisfed.org/series/GNPA>.

22 ⁴⁸ Memorandum from M.B. Glaser, CO₂ “Greenhouse” Effect, Exxon Research and Engineering
23 Company (Nov. 12, 1982),
24 <https://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf>.

25 ⁴⁹ Memorandum from Roger W. Cohen, Exxon Research and Engineering Co., to A.M. Natkin,
26 Exxon Corp. Office of Science and Technology, ClimateFiles (Sept. 2, 1982),
<http://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modeling-and-co2-greenhouse-effect-research>.

1 4.43. In October 1982, at a symposium that API members, including Exxon, attended,
2 the president of Columbia University’s Geophysical Observatory delivered a speech wherein he
3 stated: “[f]ew people doubt that the world has entered an energy transition away from
4 dependence upon fossil fuels and toward some mix of renewable resources that will not pose
5 problems of CO₂ accumulation.”
6

7 4.44. In 1988, Shell issued a confidential internal report acknowledging that burning
8 fossil fuels is a primary driver of global warming and would “create significant changes in sea
9 level, ocean currents, precipitation patterns, regional temperature and weather.” “[B]y the time
10 the global warming becomes detectable it could be too late to take effective countermeasures to
11 reduce the effects or even to stabilise the situation.” The report emphasized that “the potential
12 implications for the world are . . . so large that policy options [to reduce emissions] need to be
13 considered much earlier.” Thus, rather than research “what the world may be facing exactly,”
14 research should be directed to ways to reduce emissions and alternate energy options.⁵⁰
15

16 4.45. Shell also acknowledged that: “it is possible that perception of a serious
17 environmental threat [such as climate change] could swing opinion away from fossil fuel
18 combustion and lead to a revival of interest in conservation, renewable sources and particularly
19 nuclear energy.”⁵¹ In assessing the “[i]mplications for Shell Companies . . . Group Planning felt
20
21
22
23

24 ⁵⁰ Shell Internationale Petroleum, Greenhouse Effect Working Group, The Greenhouse Effect
25 (May 1988), [https://www.documentcloud.org/documents/4411090-
26 Document3.html#document/p9/a411239](https://www.documentcloud.org/documents/4411090-Documents/Document3.html#document/p9/a411239);
<https://s3.documentcloud.org/documents/4411090/Document3.pdf>

⁵¹ *Id.* at 19.

1 there was a possibility that an increasing awareness of the greenhouse effect might change
2 people's attitudes towards non-fossil energy sources, especially nuclear.”⁵²

3 4.46. In the mid-1990s, Shell began using scenarios to plan how the company could
4 respond to various global forces in the future. In one scenario published in a 1998 internal report,
5 Shell paints an eerily prescient scene:
6

7 In 2010, a series of violent storms causes extensive damage to the
8 eastern coast of the U.S. Although it is not clear whether the storms
9 are caused by climate change, people are not willing to take further
10 chances. The insurance industry refuses to accept liability, setting off
11 a fierce debate over who is liable: the insurance industry or the
12 government. After all, two successive IPCC reports since 1993 have
13 reinforced the human connection to climate change . . . Following the
14 storms, a coalition of environmental NGOs brings a class-action suit
15 against the US government and fossil-fuel companies on the grounds
16 of neglecting what scientists (including their own) have been saying
17 for years: that something must be done. A social reaction to the use of
18 fossil fuels grows, and individuals become ‘vigilante
19 environmentalists’ in the same way, a generation earlier, they had
20 become fiercely anti-tobacco. Direct-action campaigns against
21 companies escalate. Young consumers, especially, demand action.⁵³

22 4.47. Defendants considered their predictions of climate change to be so reliable, they
23 based multi-million dollar investments on them. Defendants spent millions raising offshore
24 drilling platforms to account for future global warming-induced sea level rise; reinforcing
25 offshore oil platforms to withstand increased wave strength and storm severity; developing
26 technology and infrastructure to extract, store, and transport fossil fuels in a warming arctic

25 ⁵² *Id.* at p. 23

26 ⁵³Royal Dutch/Shell Group, Group Scenarios 1998–2020 115, 122 (1998),
<http://www.documentcloud.org/documents/4430277-27-1-Compiled.html>.

1 environment; and developing and patenting designs for equipment intended to extract crude oil
2 and/or natural gas in areas previously unreachable because of the presence of polar ice sheets.⁵⁴

3 4.48. As early as 1973, Exxon obtained a patent for a cargo ship capable of breaking
4 through sea ice⁵⁵ and for an oil tanker⁵⁶ designed specifically for use in previously unreachable
5 areas of the Arctic.
6

7 4.49. In 1974, Chevron, in like manner, obtained a patent for a mobile arctic drilling
8 platform designed to withstand significant interference from lateral ice masses,⁵⁷ allowing for
9 drilling in areas with increased ice flow movement due to elevated temperature.

10 4.50. That same year, Texaco (Chevron) worked toward obtaining a patent for a method
11 and apparatus for reducing ice forces on a marine structure prone to being frozen in ice through
12 natural weather conditions,⁵⁸ allowing for drilling in previously unreachable Arctic areas that
13 would become seasonally accessible.
14

15 4.51. Shell obtained a patent similar to Texaco's (Chevron) in 1984.⁵⁹

16 4.52. In 1989, Norske Shell, Royal Dutch Shell's Norwegian subsidiary, altered
17 designs for an offshore drilling platform that was anticipated to operate until roughly 2065. The
18

19
20 ⁵⁴ Lieberman, Amy and Susanne Rust. Big Oil braced for global warming while it fought regulations. (Dec. 31, 2015) <https://graphics.latimes.com/oil-operations/>

21 ⁵⁵ ExxonMobil Research Engineering Co., Patent US3727571A: Icebreaking cargo vessel
(granted Apr. 17, 1973), <https://www.google.com/patents/US3727571>.

22 ⁵⁶ ExxonMobil Research Engineering Co., Patent US3745960A: Tanker vessel (granted July 17,
23 1973), <https://www.google.com/patents/US3745960>.

24 ⁵⁷ Chevron Research & Technology Co., Patent US3831385A: Arctic offshore platform (granted
25 Aug. 27, 1974), <https://www.google.com/patents/US3831385>.

26 ⁵⁸ Texaco Inc., Patent US3793840A: Mobile, arctic drilling and production platform (granted
27 Feb. 26, 1974), <https://www.google.com/patents/US3793840>.

⁵⁹ Shell Oil Co., Patent US4427320A: Arctic offshore platform (granted Jan. 24, 1984),
<https://www.google.com/patents/US4427320>.

1 platform was originally designed to stand approximately 100 feet above sea level—the amount
2 necessary to stay above waves in a once-in-a-century strength storm. However, Shell engineers
3 revised their plans to increase the above-water height of the platform by 3 to 6 feet, specifically
4 to account for higher anticipated average sea levels and increased storm intensity due to global
5 warming over the platform’s operational life. Raising the platform cost Shell an additional forty
6 million dollars.⁶⁰
7

8 4.53. In the mid-1990s, ExxonMobil, Shell, and Imperial Oil (ExxonMobil) jointly
9 undertook an offshore drilling project in Nova Scotia. According to the project’s Environmental
10 Impact Statement, the project estimated a “global warming sea-level rise” impact of 0.5 m [1.64
11 feet] during the 25-year life of the project. Exxon and Shell designed their coastal and offshore
12 structures accordingly.⁶¹
13

14 4.54. Defendants did not engage in climate research to benefit, educate, or warn the
15 public. Defendants engaged in this research to protect their business interests. Defendants
16 recognized decades ago that carbon emissions from fossil fuels were concentrating in the
17 atmosphere and that this would lead to massive warming and catastrophic climate disruption.
18 Defendants also recognized that increasing public awareness of the problem threatened their
19 market share and profits and could lead to the development of competing alternative energy
20 source and reduced demand for fossil fuels. Accordingly, as described in this Part B and in Part
21

24 ⁶⁰ *Id.*; Lieberman, Amy and Susanne Rust. Big Oil braced for global warming while it fought
25 regulations. (Dec. 31, 2015) <https://graphics.latimes.com/oil-operations/>

26 ⁶¹ ExxonMobil, Sable Project Development Plan, vol. 3, 4-77, <http://soep.com/about-the-project/development-plan-application>.

1 C below, Defendants did not warn consumers of the dangers of Defendants’ products. Rather,
2 they actively engaged in disinformation and concealed the risks they well understood.

3 **C. Defendants chose to deceive the public, and risk catastrophic climate change, in**
4 **order to continue profiting from fossil fuels.**

5 4.55. Once the public began to learn of the risks from using fossil fuels—risks that
6 Defendants already knew—Defendants chose to deceive the public about climate change and the
7 impact of fossil fuels. Defendants did this in order to maintain and increase demand for fossil
8 fuels, limit demand for competing energy options, and increase their profits.

9 4.56. Several events in the late 1980s and early 1990s led to greater public awareness
10 of climate change:

11 a. In 1988, NASA scientist James Hansen testified to Congress that human
12 activities were causing global warming.⁶² The testimony was widely publicized, including
13 coverage on the front page of The New York Times.

14 b. Also in 1988, the United Nations formed the Intergovernmental Panel on
15 Climate Change (“IPCC”), a scientific panel charged with assessing available scientific
16 information on climate change, its impacts, and potential response strategies.⁶³

17 c. The IPCC issued its first report in 1990 and a supplement in 1992. The
18 IPCC concluded that “emissions from human activities are substantially increasing the
19 atmospheric concentrations of greenhouse gases.” Burning fossil fuels was responsible for 70-
20
21
22

23 ⁶² See Peter C. Frumhoff et al., The Climate Responsibilities of Industrial Carbon Producers, 132
24 Climatic Change 161 (2015).

25 ⁶³ Bruce, J. P. and A. T. Brough. Memorandum of Understanding Between the United Nations
26 Environment Programme (UNEP) and the World Meteorological Association (WMO) on the
Intergovernmental Panel on Climate Change (IPCC). (1989).
https://www.ipcc.ch/site/assets/uploads/2019/06/MOU_between_UNEP_and_WMO_on_IPCC-1989.pdf

1 90% of those emissions. The increase in greenhouse gasses will warm the Earth’s surface,
2 leading to serious environmental damage. The IPCC found sufficient evidence of these risks to
3 justify immediate “use of cleaner, more efficient energy sources with lower or no emissions of
4 greenhouse gases.”⁶⁴

5
6 4.57. In response, Defendants embarked on a campaign to discredit the science and
7 deceive the public. Defendants’ campaign focused on concealing, discrediting, and
8 misrepresenting information that could reduce demand for fossil fuels or increase demand for
9 alternative energy sources.

10 4.58. Defendants acted independently and jointly through API and other associations
11 such as the International Petroleum Industry Environmental Conservation Association, the
12 Information Council for the Environment, the Global Climate Coalition, and the Global Climate
13 Science Communications Team.

14
15 4.59. Unearthed internal documents and admissions from former employees evince a
16 deliberate strategy to mislead the public through direct misrepresentations to consumers through
17 advertising and other publications and also through use of seemingly independent front groups
18 and scientific spokespeople.

19 **D. Defendants strategized to use seemingly independent technical sources in order**
20 **to confuse and mislead consumers about the scientific evidence for climate**
21 **change**

22 4.60. In a secretly-recorded video from 2021, an Exxon executive admitted:

23 “Did we aggressively fight against some of the science? Yes.
24

25
26 ⁶⁴ IPCC, Climate Change: The IPCC Scientific Assessment xi (1990),
<https://www.ipcc.ch/report/climate-change-the-ipcc-1990-and-1992-assessments>.

1 “Did we join some of these shadow groups to work against some of the early
2 efforts? Yes, that’s true. There’s nothing illegal about that.

3 “We were looking out for our investments. We were looking out for our
4 shareholders.”⁶⁵

5
6 4.61. In 1988, Joseph Carlson, an Exxon public affairs manager, stated in an internal
7 memo that Exxon “is providing leadership through API in developing the petroleum industry
8 position” on climate change.⁶⁶ The “Exxon Position” would be in part to:

9 **EMPHASIZE THE UNCERTAINTY IN SCIENTIFIC CONCLUSIONS REGARDING THE POTEN-**
10 **TIAL ENHANCED GREENHOUSE EFFECT.**

11 **RESIST THE OVERSTATEMENT AND SENSATIONALIZATION OF POTENTIAL GREENHOUSE**
12 **EFFECT WHICH COULD LEAD TO NONECONOMIC DEVELOPMENT OF NONFOSSIL FUEL**
13 **RESOURCES.**

14 4.62. In 2019, Professor Martin Hoffert, a physicist and Exxon consultant in the
15 1980s, testified to Congress about Exxon’s “climate science denial program campaign,”
16 stating:

17
18 [O]ur research [at Exxon] was consistent with findings of the United
19 Nations Intergovernmental Panel on Climate Change on human
20 impacts of fossil fuel burning, which is that they are increasingly
21 having a perceptible influence on Earth’s climate. . . . If anything,
22 adverse climate change from elevated CO2 is proceeding faster than
the average of the prior IPCC mild projections and fully consistent
with what we knew back in the early 1980’s at Exxon. . . . I was greatly
distressed by the climate science denial program campaign that

23 ⁶⁵ Brady, Jeff. Exxon Lobbyist Caught On Video Talking About Undermining Biden's Climate
24 Push (July 1, 2021). [https://www.npr.org/2021/07/01/1012138741/exxon-lobbyist-caught-on-](https://www.npr.org/2021/07/01/1012138741/exxon-lobbyist-caught-on-video-talks-about-undermining-bidens-climate-push)
25 [video-talks-about-undermining-bidens-climate-push](https://www.npr.org/2021/07/01/1012138741/exxon-lobbyist-caught-on-video-talks-about-undermining-bidens-climate-push)

26 ⁶⁶ Memorandum from Joseph M. Carlson, The Greenhouse Effect (Aug. 3, 1988),
[https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-](https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-Effect.pdf)
[Effect.pdf](https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-Effect.pdf).

1 Exxon’s front office launched around the time I stopped working as a
2 consultant—but not collaborator—for Exxon. The advertisements
3 that Exxon ran in major newspapers raising doubt about climate
4 change were contradicted by the scientific work we had done and
5 continue to do. Exxon was publicly promoting views that its own
6 scientists knew were wrong, and we knew that because we were the
7 major group working on this.⁶⁷

8 4.63. Defendants’ tactics – e.g., outright denial, claiming uncertainty when there was
9 in fact a scientific consensus, and secretly funding, then publicly promoting fringe scientific
10 theories as evidence of a true scientific debate – mirrored the tactics that cigarette companies
11 used to persuade consumers that smoking did not cause cancer.

12 4.64. That Defendants employed tactics like those used by cigarette companies is no
13 surprise – they hired many of the same consultants from the same public relations firms and, in
14 some cases, used the very same front groups and scientists to act as spokespeople to mislead the
15 public.

16 4.65. Defendants formed the International Petroleum Industry Environmental
17 Conservation Association to coordinate the industry’s response to the public’s growing
18 awareness of climate change. Within the Association, Defendants participated in a “Working
19 Group on Global Climate Change.” In 1990, the Working Group sent a strategy memo to
20 Defendants and hundreds of other oil companies. The memo explained that, to forestall a global
21 shift away from burning fossil fuels for energy, the industry should emphasize uncertainties in

22
23
24 ⁶⁷ Examining the Oil Industry’s Efforts to Suppress the Truth About Climate Change, Hearing
25 Before the Subcomm. on Civil Rights and Civil Liberties of the Comm. on Oversight and
26 Reform, 116th Cong. 7–8 (Oct. 23, 2019) (statement of Martin Hoffert, Former Exxon
Consultant, Professor Emeritus, Physics, New York University),
<https://oversight.house.gov/hearing/subcommittee-on-civil-rights-climate-change/>

1 climate science, call for further research, and promote industry-friendly policies that would leave
2 the fossil-fuel business intact.⁶⁸

3 4.66. In 1991, the Information Council for the Environment, whose members included
4 Defendants, launched a national climate change science denial campaign with full-page
5 newspaper ads, radio commercials, a public relations tour schedule, “mailers,” and research tools
6 to measure campaign success. The campaign’s top strategy was to:
7

8 **1. Reposition global warming as theory (not fact).**

9
10 Its target audiences included younger, lower-income women who “are likely to be ‘green’
11 consumers, to believe the earth is warming, and to think the problem is serious . . . These
12 women are good targets for magazine advertisements.”⁶⁹

13 4.67. The campaign planned to “use a spokesman from the scientific community” based
14 on consumer research that found “technical and expert sources have the highest credibility
15 among a broad range of members of the public.”⁷⁰

16
17 4.68. In 1994, an internal Shell report similarly described its public relations plan to
18 emphasize that:
19
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22

23 ⁶⁸ Benjamin A. Franta, Big Carbon’s Strategic Response to Global Warming, 1950-2020 140
24 (2022), <https://purl.stanford.edu/hq437ph9153>.

25 ⁶⁹ Union of Concerned Scientists, Deception Dossier #5: Coal’s “Information Council on the
26 Environment” Sham (1991), <https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf>.

⁷⁰ *Id.*

1 Scientific uncertainty and the evolution of energy systems indicate that policies to curb
2 greenhouse gas emissions beyond 'no regrets' measures could be premature, divert
3 resources from more pressing needs and further distort markets. 71

4 4.69. In 1998, API formed the Global Climate Science Communications Team,
5 including representatives from Exxon, API, and Chevron. There were no scientists on the
6 Science Communications Team. The Science Communications Team enlisted several
7 Defendant-funded front groups to participate, as well as a front group created by cigarette-maker
8 Phillip Morris, "The Advancement of Sound Science Coalition," and its executive director, Steve
9 Milloy, to assist. Philip Morris had created and funded "The Advancement of Sound Science
10 Coalition" to act as a seemingly more credible and independent voice to claim that second-hand
11 smoke did not cause cancer or heart disease. API and Defendants paid The Advancement of
12 Sound Science Coalition and Steve Milloy, to spread doubt about climate science in the same
13 way that it spread doubt about smoking and cancer.⁷²

14 4.70. The Global Climate Science Communications Team "developed an action plan
15 to inform the American public that science does not support the precipitous actions Kyoto would
16 dictate [i.e., reducing use of fossil fuels]." According to the plan:
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18
19
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21
22

23 ⁷¹ Shell Internationale Petroleum, Greenhouse Effect Working Group, The Greenhouse Effect
24 (May 1988), [https://www.documentcloud.org/documents/4411090-](https://www.documentcloud.org/documents/4411090-Documents3.html#document/p9/a411239)
25 [Document3.html#document/p9/a411239](https://www.documentcloud.org/documents/4411090-Documents3.html#document/p9/a411239).

26 ⁷² Union of Concerned Scientists, Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science (July 16, 2007), <https://www.ucsusa.org/resources/smoke-mirrors-hot-air>.

Victory Will Be Achieved When

- Average citizens “understand” (recognize) uncertainties in climate science; recognition of uncertainties becomes part of the “conventional wisdom”
- Media “understands” (recognizes) uncertainties in climate science.
- Media coverage reflects balance on climate science and recognition of the validity of viewpoints that challenge the current “conventional wisdom”
- Industry senior leadership understands uncertainties in climate science, making them stronger ambassadors to those who shape climate policy
- Those promoting the Kyoto treaty on the basis of extant science appear to be out of touch with reality.

4.71. The Global Climate Science Communications Team would: “1. Develop and implement a national media relations program to inform the media about uncertainties in climate science to generate national, regional, and local media coverage on the scientific uncertainties,” to be accomplished by the following (among other actions): “offer scientists to appear on radio talk shows across the country . . . Identify, recruit, and train a team of five independent scientists to participate in media outreach . . . Produce [and] distribute a steady stream” of climate science information and editorials “authored by scientists” to media outlets nationwide. The Science Communications Team would also “Organize, promote and conduct through grassroots organizations a series of campus/community workshops/debates on climate science.”⁷³

4.72. The Communications Team also planned to create a “one-stop resource on climate science” for industry partners, as well as policymakers, the media, and “all others concerned.” In particular, the resource center would provide the “logistical and moral support”

⁷³ Email from Joe Walker to Global Climate Science Team, Draft Global Climate Science Communications Plan (Apr. 3, 1998), <https://assets.documentcloud.org/documents/784572/api-global-climate-science-communications-plan.pdf>.

1 to enable industry partners to advocate for protecting fossil fuel markets based on alleged
2 uncertainties in climate science.⁷⁴

3 4.73. Soon after, API distributed a memo to its members stating: “Climate is at the
4 center of industry's business interests. Policies limiting carbon emissions reduce petroleum
5 product use. That is why it is API's highest priority issue and defined as strategic.”⁷⁵

6 4.74. On information and belief, Defendants and API engaged in deceiving the public
7 about climate change intended to do so not just to influence policy, but also to ensure continued
8 consumer demand for fossil fuels and avoid competition from cleaner energy sources.
9

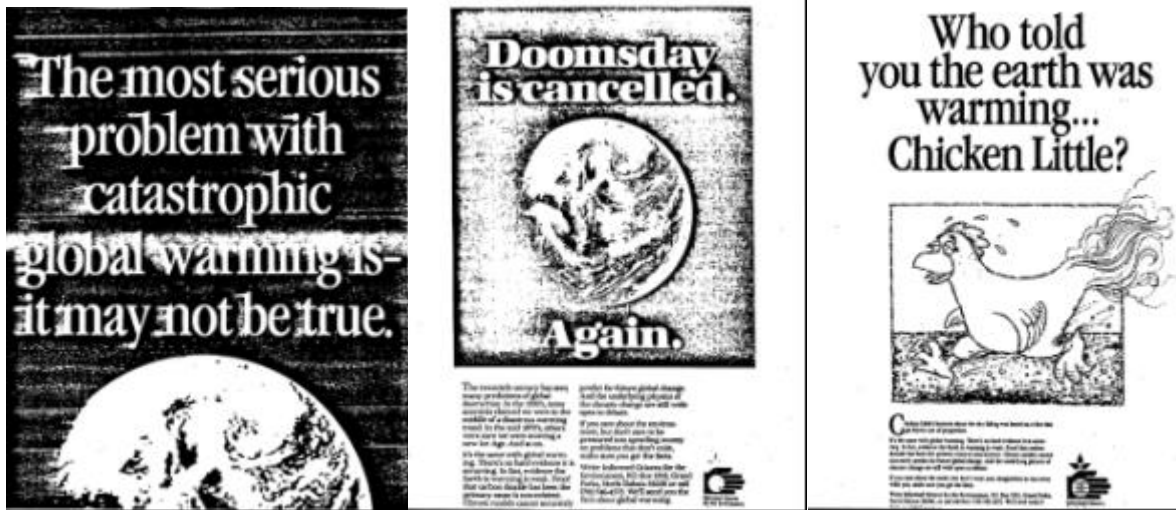
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⁷⁴ Email from Joe Walker to Global Climate Science Team, Draft Global Climate Science
24 Communications Plan (Apr. 3, 1998), [https://assets.documentcloud.org/documents/784572/api-](https://assets.documentcloud.org/documents/784572/api-global-climate-science-communications-plan.pdf)
25 [global-climate-science-communications-plan.pdf](https://assets.documentcloud.org/documents/784572/api-global-climate-science-communications-plan.pdf).

26 ⁷⁵ Allegations of Political Interference with Government Climate Change Science, Hearing
Before the Comm. on Oversight and Government Reform, 110th Cong. 324 (Mar. 19, 2007)
<https://www.govinfo.gov/content/pkg/CHRG-110hrg37415/html/CHRG-110hrg37415.htm>

1 **E. Defendants spread their deceptive messages to consumers in part through**
2 **advertisements and other publications.**

3 4.75. Below are some of the Information Council for the Environment's
4 advertisements:⁷⁶



11
12
13
14 **Figure 6:** Information Council for the Environment Advertisements

15 4.76. For over a decade, Mobil (ExxonMobil) regularly published advertisements in
16 the New York Times and other national newspapers. These advertisements were meant to look
17 like editorials, not paid advertisements. In line with Defendants' strategy, many such
18 "advertorials" claimed the science of climate change was uncertain or lacking evidence.

19 4.77. Mobil ran the following advertorial in the New York Times in 1993:

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21
22
23
24
25 ⁷⁶ Union of Concerned Scientists, Deception Dossier #5: Coal's "Information Council on the
26 Environment" Sham at 47-49 (1991),
http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf.

Apocalypse no

For the first half of 1992, America was inundated by the media with dire predictions of global warming catastrophes, all of which seemed to be aimed at heating up the rhetoric from the Earth Summit in Rio de Janeiro last June.

Unfortunately, the media hype proclaiming that the sky was falling did not properly portray the consensus of the scientific community. After the Earth Summit, there was a noticeable lack of evidence of the sky actually falling and subsequent colder than normal temperatures across the country cooled the warming hysteria as well.

Everybody, of course, remembers the Earth Summit and the tons of paper used up in reporting on it—paper now buried in landfills around the world. But few people ever heard of a major document issued at the same time and called the "Heidelberg Appeal." The reason? It just didn't make "news."

Perhaps that is because the Appeal urged Summit attendees to avoid making important environmental decisions based on "pseudoscientific arguments or false and non-relevant data."

The Heidelberg Appeal was issued initially by some 264 scientists from around the world, including 52 Nobel Prize winners. Today, the Appeal carries the signatures of more than 2,300 scientists—65 of them Nobel Prize winners—from 79 countries. If nothing else, its message is illustrative of what's wrong with so much of the global warming rhetoric. The lack of solid scientific data.

Scientists can agree on certain facts pertaining to global warming. First, the greenhouse effect is a natural phenomenon; it accounts for the moderate temperature that makes our planet habitable. Second, the concentration of greenhouse gases (mainly carbon dioxide) has increased and there has been a slight increase in global temperatures over the past century. Finally, if present trends continue, carbon dioxide levels will double over the next 50 to 100 years.

Controversy arises when trying to link past changes in temperatures to increased concen-

trations of greenhouse gases. And it arises again when climate prediction models are used to conclude Earth's temperature will climb drastically in the next century and—based on such models—to propose policy decisions that could drastically affect the economy.

According to Arizona State University climatologist Dr. Robert C. Balling in his book, *The Heated Debate* (San Francisco: Pacific Research Institute for Public Policy, 1992), until knowledge of the interplay between oceans and the atmosphere improves, "model predictions must be treated with considerable caution." Moreover, models don't simulate the complexity of clouds, nor do they deal adequately with sea ice, snow or changes in intensity of the sun's energy.

And they don't stand up to reality testing. Comparing actual temperatures over the last 100 years against model calculations, the models predicted temperature increases higher than those that actually occurred. Moreover, most of the earth's temperature increase over the last century occurred before 1940. Yet, the real build-up in man-made CO₂ didn't occur until after 1940. Temperatures actually fell between 1940 and 1970.

Sifting through such data, Dr. Balling has concluded, "there is a large amount of empirical evidence suggesting that the apocalyptic vision is in error and that the highly touted greenhouse disaster is most improbable."

Other scientists have an even more interesting viewpoint. Notes atmospheric physicist S. Fred Singer, president of the Washington, D.C.-based Science & Environmental Policy Project, "the net impact [of a modest warming] may well be beneficial."

All of which would seem to suggest that the jury's still out on whether drastic steps to curb CO₂ emissions are needed. It would seem that the phenomenon—and its impact on the economy—are important enough to warrant considerably more research before proposing actions we may later regret.

Perhaps the sky isn't falling, after all.

Mobil®

1 4.78. The advertorial quotes Fred Singer, a physicist whom tobacco companies funded
2 to promote his claim that second-hand smoke did not cause cancer.⁷⁷

3 4.79. On information and belief, Defendants financially supported Fred Singer and his
4 writings, though the advertisement presents Singer as a neutral expert.

5 4.80. The advertisement also presents Robert C. Balling as another neutral scientific
6 expert. Yet five years after Mobil ran this advertorial, Balling acknowledged that he had received
7 \$408,000 in funding from the fossil fuel industry, including from ExxonMobil.⁷⁸

8 4.81. The advertorial misleadingly portrays the “Heidelberg Appeal” as evidence that
9 there was insufficient scientific data for action on climate change. In fact, the Heidelberg Appeal
10 did not discuss climate change or the validity of scientific reasoning or evidence showing that
11 climate change is happening, is human-caused, and will cause severe environmental damage.⁷⁹

12 4.82. Many other Exxon and Mobil advertorials falsely or misleadingly characterized
13 the state of climate science research. Below are examples of statements appearing in Exxon and
14 Mobil advertisements:
15

16 a. “We don’t know enough about the factors that affect global warming and
17 the degree to which—if any—that man-made emissions (namely, carbon dioxide) contribute
18 to increases in Earth’s temperature.”⁸⁰
19
20

21
22 ⁷⁷ Schwartz, John. S. Fred Singer, a Leading Climate Change Contrarian, Dies at 95.
23 Derided as a “Merchant of Doubt,” he spent decades trying to refute the evidence of global
24 warming and other environmental risks. (April 11, 2020).
<https://www.nytimes.com/2020/04/11/climate/s-fred-singer-dead.html>

24 ⁷⁸ Robert C. Balling Jr. DeSmog. <https://www.desmog.com/robert-c-balling-jr/>.

25 ⁷⁹ Heidelberg Appeal. DeSmog. <https://www.desmog.com/heidelberg-appeal/>.

26 ⁸⁰ Mobil, Climate Change: A Prudent Approach, in N.Y. Times (Nov. 13, 1997),
<https://www.documentcloud.org/documents/705548-mob-nyt-1997-11-13-climateprudentapproach.html>.

1 b. “[G]reenhouse-gas emissions, which have a warming effect, are offset by
2 another combustion product—particulates—which leads to cooling.”⁸¹

3 c. “Even after two decades of progress, climatologists are still uncertain
4 how—or even if—the buildup of man-made greenhouse gases is linked to global warming. It
5 could be at least a decade before climate models will be able to link greenhouse warming
6 unambiguously to human actions. Important answers on the science lie ahead.”⁸²

7 d. “[I]t is impossible for scientists to attribute the recent small surface
8 temperature increases to human causes.”⁸³

9
10 4.83. A quantitative analysis of ExxonMobil’s climate communications between 1989
11 and 2004 found that, while 83% of the company’s peer-reviewed papers and 80% of its internal
12 documents acknowledged the reality and human origins of climate change, 81% of its
13 advertorials communicated doubt about those conclusions.⁸⁴

14
15 4.84. In 1996, Exxon published a pamphlet, “Global Warming: Who’s Right? Facts
16 about a debate that’s turned up more questions than answers.” False or misleading statements in
17 the pamphlet include the following: In the preface, Exxon’s CEO stated that “many scientists
18

19
20 ⁸¹ Mobil, Less Heat, More Light on Climate Change (July 18, 1996),
21 [https://www.documentcloud.org/documents/705544-mob-nyt-1996-jul-18-](https://www.documentcloud.org/documents/705544-mob-nyt-1996-jul-18-lessheatmorelight.html)
22 [lessheatmorelight.html](https://www.documentcloud.org/documents/705544-mob-nyt-1996-jul-18-lessheatmorelight.html).

23 ⁸² Mobil, Climate Change: Where We Come Out, in N.Y. Times (Nov. 20, 1997),
24 [https://www.documentcloud.org/documents/705549-mob-nyt-1997-11-20-](https://www.documentcloud.org/documents/705549-mob-nyt-1997-11-20-ccwherewecomeout.html)
25 [ccwherewecomeout.html](https://www.documentcloud.org/documents/705549-mob-nyt-1997-11-20-ccwherewecomeout.html).

26 ⁸³ ExxonMobil, Unsettled Science (Mar. 23, 2000), reproduced in
[https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-](https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing)
[climate-change-was-nothing](https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing).

⁸⁴ Geoffrey Supran & Naomi Oreskes, Assessing ExxonMobil’s Climate Change
Communications (1977–2014), 12 Envtl. Research Letters, IOP Publishing Ltd. 12 (2017),
<https://iopscience.iop.org/article/10.1088/1748-9326/aa815f/pdf>.

1 agree there's ample time to better understand the climate system." The pamphlet misleadingly
2 described the greenhouse effect, calling it "definitely a good thing" and "what makes the earth's
3 atmosphere liveable" without mentioning the severe damage that the greenhouse effect could
4 cause if carbon levels continued to rise. Contradicting Exxon's internal and peer-reviewed
5 scientific research, the pamphlet ascribed the rise in temperature since the late nineteenth century
6 to "natural fluctuations that occur over long periods of time" rather than to burning fossil fuels.
7 The publication also falsely claimed that models projecting future impacts to the climate from
8 rising carbon levels, including those developed by Exxon employees, as having been "proved to
9 be inaccurate." Further, the pamphlet claimed "the indications are that a warmer world would be
10 far more benign than many imagine . . . moderate warming would reduce mortality rates in the
11 US, so a slightly warmer climate would be more healthful." Exxon further claimed that
12 advocates for reducing fossil fuel use were simply "drawing on bad science, faulty logic, or
13 unrealistic assumptions," without disclosing that Exxon's own research supported those
14 advocates' claims.⁸⁵

17 4.85. Also in 1996, API published the book *Reinventing Energy: Making the Right*
18 *Choices* claiming "there is no persuasive basis for forcing Americans to dramatically change
19 their lifestyles to use less oil." "[N]o scientific evidence exists that human activities are
20 significantly affecting sea levels, rainfall, surface temperatures or the intensity and frequency of
21

25 ⁸⁵ Exxon Corp., Global Warming: Who's Right? (1996).
26 <https://www.climatefiles.com/exxonmobil/global-warming-who-is-right-1996/>

1 storms.” “Facts don’t support the arguments for restraining oil use.”^{86, 87} API claimed that
2 scientists do not understand how carbon flows in and out of the atmosphere or whether fossil
3 fuels are responsible for increasing concentrations of atmospheric CO₂. It then explained that
4 even if some warming does occur, such warming “would present few if any problems.” For
5 example, farmers could be “smart enough to change their crop plans” and low-lying areas would
6 “likely adapt” to sea-level rise.⁸⁸

8 4.86. Defendants shared these talking points with other members of the fossil fuel
9 industry. In a 1997 speech to the World Petroleum Congress, Exxon’s CEO claimed:

10 We also have to keep in mind that most of the greenhouse effect comes
11 from natural sources . . . Leaping to radically cut this tiny sliver of the
12 greenhouse pie on the premise that it will affect climate defies
13 common sense and lacks foundation in our current understanding of
14 the climate system.

15 Let’s agree there’s a lot we really don’t know about how climate will
16 change in the 21st century and beyond . . . It is highly unlikely that the
17 temperature in the middle of the next century will be significantly
18 affected whether policies are enacted now or 20 years from now.⁸⁹

19 4.87. In a 1998 publication from Imperial Oil (ExxonMobil), “A Cleaner Canada,”
20 Imperial’s CEO publicly claimed:

21 There is absolutely no agreement among climatologists on whether or
22 not the planet is getting warmer, or, if it is, on whether the warming is

23 ⁸⁶ Sally Brain Gentile et al., Reinventing Energy: Making the Right Choices, American
24 Petroleum Institute (1996), [http://www.climatefiles.com/trade-group/american-petroleum-](http://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-energy)
25 [institute/1996-reinventing-energy](http://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-energy).

26 ⁸⁷ American Petroleum Institute, Reinventing Energy: Making the Right Choices 79 (1996),
[http://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-](http://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-energy)
energy.

⁸⁸ Id. at 86–87.

⁸⁹ Lee R. Raymond, Chairman and Chief Executive Officer, Exxon Corp., Address at the World
Petroleum Congress (Oct. 13, 1997), [https://www.climatefiles.com/exxonmobil/1997-exxon-](https://www.climatefiles.com/exxonmobil/1997-exxon-lee-raymond-speech-at-world-petroleum-congress/)
lee-raymond-speech-at-world-petroleum-congress/.

1 the result of man-made factors or natural variations in the climate. . .
2 . I feel very safe in saying that the view that burning fossil fuels will
3 result in global climate change remains an unproved hypothesis.⁹⁰

4 **F. Defendants funded and promoted seemingly independent scientists and groups
5 to deceive the public about climate change.**

6 4.88. Defendants also participated in the Global Climate Coalition (“GCC”), an
7 industry group formed in 1989 to advertise and distribute material to encourage continued
8 consumption of fossil fuels.⁹¹ The Coalition’s position on climate change was that “the
9 preponderance of the evidence indicates that most, if not all, of the observed warming is part of
10 [a] natural warming trend which began approximately 400 years ago. If there is [a human-
11 caused] component to this observed warming, the GCC believes that it must be very small and
12 must be superimposed on a much larger natural warming trend.”⁹²

13 4.89. Despite what the Global Climate Coalition said publicly, it acknowledged
14 internally that the alternative theories were unfounded. A draft version of the Coalition’s
15 “primer” on climate science acknowledged that various “contrarian theories” (i.e., climate
16 change skepticism) do not “offer convincing arguments against the conventional model of
17 greenhouse gas emission-induced climate change,” but this section was deleted from the public
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23 ⁹⁰ Robert Peterson, A Cleaner Canada in Imperial Oil Review (1998),
24 [https://www.climatefiles.com/exxonmobil/imperial-oil/1998-imperial-oil-article-a-cleaner-
canada-by-robert-peterson/](https://www.climatefiles.com/exxonmobil/imperial-oil/1998-imperial-oil-article-a-cleaner-canada-by-robert-peterson/).

25 ⁹¹ Id.

26 ⁹² Global Climate Coalition, Global Climate Coalition: An Overview 2 (Nov. 1996),
[http://www.climatefiles.com/denial-groups/global-climatecoalition-collection/1996-global-
climate-coalition-overview/](http://www.climatefiles.com/denial-groups/global-climatecoalition-collection/1996-global-climate-coalition-overview/).

1 version.⁹³ Instead, Defendants and the Coalition funded and promoted some of those same
2 contrarian theories.

3 4.90. Between 1989 and 1998, the Global Climate Coalition spent \$13 million on
4 advertisements as part of a campaign to deceive the public about the scientific support for climate
5 change.⁹⁴

6 4.91. In a 1994 report, the Global Climate Coalition falsely stated that “observations
7 have not yet confirmed evidence of global warming that can be attributed to human activities,”
8 that “[t]he claim that serious impacts from climate change have occurred or will occur in the
9 future simply has not been proven,” so “there is no basis for the design of effective policy action
10 that would eliminate the potential for climate change.”⁹⁵

11 4.92. In 1995, the Global Climate Coalition published a booklet called “Climate
12 Change: Your Passport to the Facts,” which falsely stated, “[w]hile many warnings have reached
13 the popular press about the consequences of a potential man-made warming of the Earth’s
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20 ⁹³ Memorandum from Gregory J. Dana, Assoc. of Int’l Auto. Mfrs., to AIAM Technical
21 Committee, Global Climate Coalition (GCC) - Primer on Climate Change Science - Final Draft
22 (Jan. 18, 1996), https://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-7_GCC-Climate-Primer.pdf.

23 ⁹⁴ Wendy E. Franz, Kennedy School of Government, Harvard University, Science, Skeptics and
24 Non-State Actors in the Greenhouse, ENRP Discussion Paper E-98-18 13 (Sept. 1998),
<https://www.belfercenter.org/sites/default/files/legacy/files/Science%20Skeptics%20and%20Non-State%20Actors%20in%20the%20Greenhouse%20-%20E-98-18.pdf>.

25 ⁹⁵ GCC, Issues and Options: Potential Global Climate Change, Climate Files (1994),
26 <http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-potential-global-climate-change-issues>.

1 atmosphere during the next 100 years, there remains no scientific evidence that such a dangerous
2 warming will actually occur.”⁹⁶

3 4.93. In 1997, William O’Keefe, chairman of the Global Climate Coalition and
4 executive vice president of API, wrote in a Washington Post op-ed, “[c]limate scientists don’t
5 say that burning oil, gas, and coal is steadily warming the earth.”⁹⁷

6 4.94. The Global Climate Coalition also sought to undermine credible climate science.
7 When the IPCC concluded that burning fossil fuels was likely influencing the climate, the Global
8 Climate Coalition responded by falsely and misleadingly claiming that the IPCC’s report was
9 the product of “scientific cleansing” that “understate[d] uncertainties about climate change
10 causes and effect . . . to increase the apparent scientific support for attribution of changes to
11 climate to human activities.”⁹⁸ The Coalition promoted this claim to reporters, editors of
12 scientific journals, and the readership of national newspapers.⁹⁹ The Coalition’s effort “was
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19 ⁹⁶ GCC, Climate Change: Your Passport to the Facts, Climate Files (1995),
20 <http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1995-climate-change-facts-passport>.

21 ⁹⁷ William O’Keefe, A Climate Policy, in The Washington Post (July 5, 1997),
22 <https://www.washingtonpost.com/archive/opinions/1997/07/05/a-climate-policy/6a11899a-c020-4d59-a185-b0e7eebf19cc/>.

23 ⁹⁸ Franz, Science, Skeptics and Non-State Actors in the Greenhouse at 14.
24 <https://www.belfercenter.org/sites/default/files/legacy/files/Science%20Skeptics%20and%20Non-State%20Actors%20in%20the%20Greenhouse%20-%20E-98-18.pdf>.

25 ⁹⁹ Naomi Oreskes & Erik Conway, Merchants of Doubt: How a Handful of Scientists Obscured
26 the Truth on Issues from Tobacco Smoke to Global Warming, New York: Bloomsbury Press
205–13 (2011). See also S. Fred Singer, Climate Change and Consensus, Science vol. 271, no.
5249 (Feb. 2, 1996); Frederick Seitz, A Major Deception on 'Global Warming', Wall Street Journal
(June 12, 1996).

1 widely perceived to be an attempt on the part of the [Global Climate Coalition] to undermine the
2 credibility of the IPCC.”¹⁰⁰

3 4.95. In 1998, a multi-state lawsuit against four of the largest tobacco companies for
4 deceiving the public about whether smoking caused cancer settled for 365.5 billion dollars.¹⁰¹
5 Defendants took note. As one Shell employee explained, the company “didn’t want to fall into
6 the same trap as the tobacco companies who have become trapped in all their lies.”¹⁰²

7 4.96. In response, Defendants shifted their communications strategy from outright
8 denial of climate science to delay.¹⁰³ Defendants increasingly claimed that even if the climate
9 “risk” was real, lingering uncertainties in the science did not justify the alleged exorbitant costs
10 of reducing fossil fuel consumption.

11 4.97. Defendants also relied more on front groups and seemingly independent scientists
12 to promote their deceptive messages.

13 4.98. BP and Shell publicly left the Global Climate Coalition, but remained members
14 of API, who continued to participate in the Global Climate Coalition on behalf of BP, Shell, and
15 API’s other members.
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21 ¹⁰⁰Franz, Science, Skeptics, and Non-State Actors in the Greenhouse at 15.
22 <https://www.belfercenter.org/sites/default/files/legacy/files/Science%20Skeptics%20and%20Non-State%20Actors%20in%20the%20Greenhouse%20-%20E-98-18.pdf>

23 ¹⁰¹ <https://www.naag.org/our-work/naag-center-for-tobacco-and-public-health/the-master-settlement-agreement/>.

24 ¹⁰² Nathaniel Rich, Losing Earth: A Recent History, London: Picador 186 (2020).

25 ¹⁰³Franta, Big Carbon’s Strategic Response to Global Warming, 1950-2020 at 170.
26 <https://stacks.stanford.edu/file/druid:hq437ph9153/Franta%20-%20Big%20Carbon%20strategic%20response%20to%20global%20warming%201950-2020%20-%202022-08-25-augmented.pdf>.

1 4.99. Defendants have funded dozens of think tanks, front groups, and foundations to
2 promote doubt on whether fossil fuels caused climate change, or whether climate change was a
3 serious problem. In many cases, the funds were earmarked for climate change programs and
4 constituted a substantial share of the group’s budget. These include the Competitive Enterprise
5 Institute, the Heartland Institute, Frontiers for Freedom, and the Committee for a Constructive
6 Tomorrow. Many of these organizations have an overlapping—sometimes identical—collection
7 of spokespeople serving as staff, board members, and scientific advisors. Funding multiple
8 organizations with overlapping staff and spokespeople to spread the same message created a
9 deceptive impression that a broad platform of experts and grassroots organizations supported
10 Defendants’ views.¹⁰⁴

12 4.100. From 1998 to 2014, ExxonMobil spent almost \$31 million funding numerous
13 organizations misrepresenting the scientific consensus that fossil fuels were causing climate
14 change with severe consequences for the public.¹⁰⁵

16 4.101. In 2007, Exxon publicly reported: “In 2008, we will discontinue contributions to
17 several public policy research groups whose position on climate change could divert attention
18 from the important discussion on how the world will secure the energy required for economic
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23 ¹⁰⁴ Smoke, Mirrors & Hot Air, How ExxonMobil Uses Big Tobacco’s Tactics to Manufacture
24 Uncertainty on Climate Science., Union of Concerned Scientists, January, 2007.
25 [exxon_report.pdf \(ucsusa.org\).](https://www.greenpeace.org/usa/fighting-climate-chaos/exxon-and-the-oil-industry-knew-about-climate-crisis/exxons-climate-denial-history-a-timeline/#:~:text=Analysis%20of%20ExxonMobil%20Worldwide%20Contributions,and%20Union%20of%20Concerned%20Scientists.)

26 ¹⁰⁵[https://www.greenpeace.org/usa/fighting-climate-chaos/exxon-and-the-oil-industry-knew-
about-climate-crisis/exxons-climate-denial-history-a-
timeline/#:~:text=Analysis%20of%20ExxonMobil%20Worldwide%20Contributions,and%20U
nion%20of%20Concerned%20Scientists.](https://www.greenpeace.org/usa/fighting-climate-chaos/exxon-and-the-oil-industry-knew-about-climate-crisis/exxons-climate-denial-history-a-timeline/#:~:text=Analysis%20of%20ExxonMobil%20Worldwide%20Contributions,and%20Union%20of%20Concerned%20Scientists.)

1 growth in an environmentally responsible manner.”¹⁰⁶ While Exxon acknowledged that funding
2 climate denial was affecting the public debate on climate change, Exxon did not keep its promise
3 to stop. Exxon continued to support groups denying climate science in 2008 and beyond.

4 4.102. Several Defendants have been linked to other groups that undermine the scientific
5 basis linking fossil fuels to climate change and sea-level rise, including the Frontiers of Freedom
6 Institute and the George C. Marshall Institute.

7
8 4.103. Phillip Cooney, an attorney at API from 1996 to 2001, testified at a 2007
9 Congressional hearing that it was “typical” for API to fund think tanks and advocacy groups that
10 minimized fossil fuels’ role in climate change. Among the groups to which API provided funding
11 were the Heartland Institute, Competitive Enterprise Institute, and the American Council on
12 Capital Formation, each of which issued publications challenging the scientific consensus that
13 fossil fuels were causing climate change and opposing restrictions on Defendants’ extraction,
14 production, and sale of fossil fuels.¹⁰⁷

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16 4.104. Defendants also paid scientists to research alternative causes of climate change
17 and promote fringe theories that lacked substantial evidence or support. Those scientists obtained
18 all or part of their research budget from Defendants directly or through Defendant-funded
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25 ¹⁰⁶ExxonMobil, 2007 Corporate Citizenship Report 41 (Dec. 31, 2007),
<http://www.documentcloud.org/documents/2799777-ExxonMobil-2007-Corporate-Citizenship-Report.html>.

26 ¹⁰⁷ Id.

1 organizations like API.¹⁰⁸ They frequently failed to disclose their fossil fuel industry
2 underwriters, at times violating the ethical protocols of journals they published in.¹⁰⁹

3 4.105. Defendant-funded front groups and API then promoted the research from the
4 scientists Defendants had secretly funded, leading consumers to believe that the scientists were
5 neutral experts unconnected to Defendants and that a wide variety of organizations accepted
6 their views.
7

8 4.106. For example, in 2003, scientists Wei-Hock Soon and Sallie Baliunas published a
9 paper claiming the twentieth century was not the warmest century of the past 1,000 years and
10 that the climate had not changed significantly over that period. The paper acknowledged that
11 API funds supported their research.

12 4.107. Soon received substantial funding from Exxon and API throughout his career.
13 Soon also had contractually agreed to allow his donors to review his research before publication
14 which he at times referred to as “deliverables.” His housing institution also agreed not to disclose
15 the arrangement without prior permission from his fossil fuel donors.¹¹⁰
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20 ¹⁰⁸ E.g., Willie Soon & Sallie Baliunas, Proxy Climatic and Environmental Changes of the Past
21 1000 Years, 23 Climate Rsch. 88, 105 (Jan. 31, 2003), <http://www.int-res.com/articles/cr2003/23/c023p089.pdf>.

22 ¹⁰⁹ E.g., Smithsonian Statement: Dr. Wei-Hock (Willie) Soon, Smithsonian (Feb. 26, 2015),
23 <https://web.archive.org/web/20181105223030/https://www.si.edu/newsdesk/releases/smithsonian-statement-dr-wei-hock-willie-soon>.

24 ¹¹⁰ Union of Concerned Scientists, Climate Deception Dossier #1: Dr. Wei-Hock Soon's
25 Smithsonian Contracts, (July 2015),
26 <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-warming/Climate-Deception-Dossier-1_Willie-Soon.pdf;
<https://www.ucsusa.org/resources/climate-deception-dossiers>.

1 4.108. Baliunas and Soon were formally affiliated with numerous front groups that
2 Defendants funded, including the Global Climate Coalition, the George Marshall Institute, the
3 Competitive Enterprise Institute, the Heartland Institute, Tech Central Station, the Center for
4 Science and Public Policy, an affiliate of Frontiers of Freedom, and the Committee for a
5 Constructive Tomorrow.¹¹¹
6

7 4.109. After Soon and Baliunas published their 2003 paper, Defendant-funded front
8 groups quickly promoted their work as neutral expert opinion on the uncertainty of climate
9 science. One such promotion was published in the Seattle Post-Intelligencer by William
10 O’Keefe. Significantly, William O’Keefe’s employment rotated between API, the Global
11 Climate Coalition, the Marshall Institute, and the Competitive Enterprise Institute---all groups
12 that Defendants helped to form and/or fund. O’Keefe has also been a registered lobbyist for
13 Exxon and API.¹¹²
14

15 4.110. Following Soon and Baliunas’ 2003 publication, three editors of the scientific
16 journal wherein it was published resigned, criticizing the journal’s review process as
17 insufficiently rigorous and claiming Soon and Baliunas’ cited evidence did not support their
18 conclusions. Thirteen of the scientists cited in Soon and Baliunas’ paper published a rebuttal
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22 ¹¹¹ Sallie Baliunas. DeSmog. <https://www.desmog.com/sallie-baliunas/#s26> _; Willie Soon.
DeSmog. <https://www.desmog.com/willie-soon/>.

23 ¹¹² Union of Concerned Scientists, Climate Deception Dossier #1: Dr. Wei-Hock Soon’s
24 Smithsonian Contracts, (July 2015),
<https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf>
25 [<https://perma.cc/JL2V-XYGL>] & [https://s3.amazonaws.com/ucs-documents/global-](https://s3.amazonaws.com/ucs-documents/global-warming/Climate-Deception-Dossier-1_Willie-Soon.pdf)
warming/Climate-Deception-Dossier-1_Willie-Soon.pdf; O’Keefe, W., 2003, Global warming
26 an uncertainty, Seattle Post-Intelligencer, December 12;
William O’Keefe. DeSmog. <https://www.desmog.com/william-o-keefe/>.

1 explaining that Soon and Baliunas had seriously misinterpreted their research.¹¹³ William
2 O’Keefe and the other Defendant-funded front groups publicly promoting Soon and Balinuas’
3 2003 paper did not disclose this controversy, their financial support for Soon and Baliunas’ work,
4 or their own connections to Defendants.

5
6 4.111. In addition to misleading the public about climate change, Defendants did not
7 warn consumers of the known risks of using fossil fuels and the potential for catastrophic damage
8 to public health, natural resources, and economies. Defendants also concealed their strategic
9 collaborations with other companies and their support for seemingly independent third parties,
10 further misleading the public.

11 4.112. Much of Defendants’ deceptive activity and sophisticated understanding of
12 climate change was not publicly discovered until journalists uncovered confidential industry
13 documents and interviewed former employees beginning in 2015.¹¹⁴
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19 ¹¹³ Union of Concerned Scientists. Smoke, Mirrors & Hot Air; How ExxonMobil Uses Big
20 Tobacco’s Tactics to Manufacture Uncertainty on Climate Science. (Jan. 2007),
https://www.ucsusa.org/sites/default/files/2019-09/exxon_report.pdf. 82-83.

21 ¹¹⁴ Neela Banerjee et al., Exxon: The Road Not Taken, InsideClimate News (Sept. 16, 2015),
<https://insideclimatenews.org/content/Exxon-The-Road-Not-Taken>; the Los Angeles Times
22 published a series of three articles between October and December 2015: see Katie Jennings et
23 al., How Exxon went from leader to skeptic on climate change research, L.A. Times (Oct. 23,
2015), <https://graphics.latimes.com/exxon-research>; Sara Jerving et al., What Exxon knew about
24 the Earth’s melting Arctic, L.A. Times (Oct. 9, 2015), [https://graphics.latimes.com/exxon-](https://graphics.latimes.com/exxon-arctic/)
[arctic/](https://graphics.latimes.com/exxon-arctic/); Amy Lieberman & Susanne Rust, Big Oil braced for global warming while it fought
25 regulations, L.A. Times (Dec. 31, 2015), <https://graphics.latimes.com/oil-operations>; Caroll
26 Muffett & Steven Feit, Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil
Accountable for the Climate Crisis, Ctr. for Int’l Env’tl. Law 10 (2017),
<https://www.ciel.org/reports/smoke-and-fumes>.

1 **G. Defendants continue to deceive the public by failing to disclose the impact of**
2 **fossil fuels on climate change, claiming their products reduce greenhouse gas**
3 **emissions, promoting unproven technologies, and greenwashing.**

4 4.113. While Defendants’ deceptive campaign began as a campaign to deny or
5 manufacture doubt about the role of fossil fuels in changing the climate, Defendants have
6 adjusted their messages over time. The one constant, however, is that Defendants continue to
7 mislead about relevant facts in order to foster continued demand for fossil fuels and dampen
8 demand for clean energy alternatives.

9 4.114. Defendants:

- 10 a. Still do not disclose the impact of fossil fuels on climate change;
11 b. Promote fossil fuel products as “green,” “sustainable,” “carbon-neutral,”
12 and “lowering emissions;”
13 c. Promote unrealistic or unproven technologies that would permit
14 continued reliance on fossil fuels and fossil-fuel-based cars, heating, and electricity; and
15 d. Promote themselves as clean energy companies who are actively working
16 to achieve net-zero emissions.
17

18 4.115. Defendants’ advertising is pervasive. Defendants reach the public through
19 television, news, podcasts, online ads, Google searches, social media posts, YouTube videos,
20 and through messaging from seemingly independent third parties (that are, in reality, closely
21 connected to Defendants). Further, Defendants employ messaging strategies that amplify and
22 maximize their influence on consumers and the public.
23

24 4.116. All of this serves a common end: giving consumers the impression that climate
25 change is not a serious concern and, in any event, that Defendants are clean energy companies
26

1 who will solve climate change with “advanced” fossil fuels, new technologies, and reducing
2 emissions.

3 4.117. Defendants’ investments and business plans tell a different story. Defendants
4 continue to explore for and produce increasing quantities of fossil fuels, to ensure dependence
5 and to dampen demand for alternative energy sources and technologies. Reducing emissions is
6 simply not in the business plan.¹¹⁵

7
8 4.118. Defendants’ investments in clean energy are miniscule parts of their budgets and
9 short-lived. Further, Defendants’ commitment to this research is generally insufficient to achieve
10 a transition away from fossil fuel dependence that Defendants claim in their ads to pursue.

11 **H. Defendants fail to disclose the climate impacts of their fossil fuel products.**

12 4.119. Defendants have spent fortunes deceiving the public about climate change and
13 the harms and costs it imposes on public health, the economy, and natural resources, so as to
14 protect their “core business” operations: selling more and more fossil fuels. That deception
15 continues to this day.
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21 ¹¹⁵ For example, ConocoPhillips’ 2012 10-K SEC filing reveals the company’s sole focus on
22 producing fossil fuels for global distribution: “As an independent E&P company, we are solely
23 focused on our core business of exploring for, developing and producing crude oil and natural
24 gas globally.” The filing further highlighted the company’s “growing North American shale and
25 oil sands businesses . . . and a global exploration program.” ConocoPhillips, Annual Report
26 (Form10-K) 32 (Dec. 31, 2012),
<https://www.sec.gov/Archives/edgar/data/1163165/000119312513065426/d452384d10k.htm>.
Indeed, in 2019, ConocoPhillips produced over 700,000 of barrels of crude oil per day and over
2.8 million cubic feet of natural gas per day. ConocoPhillips, 2019 Annual Report 168 (2019),
<https://static.conocophillips.com/files/resources/2019-conocophillips-annual-report-19-0895.pdf>.

1 4.120. This disinformation affects consumer choices about all manner of decisions,
2 including for example transportation, heating and cooling, building construction, appliances,
3 travel, and recreation.

4 4.121. History shows that when people are made aware of the harmful effects or qualities
5 of products they purchase, they often choose not to purchase them or to reduce their purchases.
6 Awareness of such effects can also spur new markets for more environmentally friendly
7 products.
8

9 4.122. For example, increased consumer awareness of the role of pesticides in harming
10 human health, worker health, and the environment spurred a burgeoning market for food grown
11 organically—with access to information about how their food was grown, consumers demanded
12 healthier choices, and the market responded.

13 4.123. Consumers also responded swiftly to findings that the use of products like
14 hairsprays and deodorants with chlorofluorocarbon (“CFC”) containing aerosols were depleting
15 the earth’s protective ozone layer by purchasing substitutes for CFC-containing products.
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17 4.124. As a BP executive stated in an internal memo from 2016:
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1 **1.1.1 Risks to BP from climate change**

2 The climate problem has the potential to disrupt BP’s business in at least
3 three ways:

- 4 i. Effective climate policies can emerge that discourage fossil fuel
5 consumption, that impose environmental performance standards
6 on production processes, and that subsidize or promote efficiency
7 and low carbon energy.
8 ii. Climate-motivated research can create disruptive new energy
9 technology.
10 iii. Climate impacts can directly disrupt BP’s investments in energy
11 production infrastructure and supply chains.

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9 4.125. By omitting material information about the climate impacts of their fossil fuel
10 products, Defendants continue to profit from their decades-long deceptive campaign and
11 ongoing uncertainty among the consuming public regarding the role of fossil fuels in harming
12 people, the economy, and the environment.

13 **I. Defendants misleadingly promote fossil fuel products as “green,” “sustainable,”**
14 **“carbon-neutral,” and “lowering emissions.”**

15 4.126. Defendants also advertise fossil fuel products as “environmentally friendly,”
16 “green,” “sustainable,” “carbon-neutral” and “lowering emissions.” These claims deceptively
17 state and imply environmental benefits that are non-existent or negligible.
18

19 4.127. In 2017, the Dutch Advertising Code Authority censured Shell and Exxon for
20 advertising natural gas as the “cleanest fossil fuel.” The Advertising Code Authority reasoned
21 that the claim “suggested that fossil fuels can be clean in that they do not cause environmental
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25 ¹¹⁶ BP. Issues Management Working Group Meeting Notes; Caspian 4.53. (Sept. 25, 2017)
26 https://oversightdemocrats.house.gov/sites/democrats.oversight.house.gov/files/2022/BP_Redacted-Final-1.pdf p.104

1 damage. It is firm . . . that that suggestion is not correct.”¹¹⁷ Yet in the United States, all
2 Defendants continue to advertise natural gas as clean, sustainable, environmentally-friendly, and
3 low-emission.

4 4.128. For example, Shell has published numerous advertisements on national
5 newspapers such as the New York Times and the Washington Post in which the company touts
6 its investments in new energy sources to reduce emissions and help to “set[] the course” for a
7 “lower-carbon mobility future.” In these advertisements, Shell presents liquefied natural gas as
8 a “cleaner source” of energy and “a critical component of a sustainable energy mix” and a
9 “lower-carbon fuel” that could “help decrease” CO₂ emissions.^{118, 119}

10
11 4.129. ConocoPhillips has released ads on Facebook stating, “Natural Gas: efficient,
12 affordable, environmentally-friendly. Find out how natural gas is meeting global energy demand
13 while reducing climate-related risks,” and linking to a page on their website.¹²⁰

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15 4.130. In 2008 ConocoPhillips published this full-page ad in *The Atlantic* magazine:
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22 ¹¹⁷ Nelson, Arthur. Shell and Exxon face censure over claim gas was 'cleanest fossil fuel'. (Aug.
23 14, 2017) <https://www.theguardian.com/environment/2017/aug/14/shell-and-exxon-face-censure-over-claim-gas-was-cleanest-fossil-fuel>.

24 ¹¹⁸ See, e.g., The Making of Sustainable Mobility (Content from Shell), Wash. Post,
<https://www.washingtonpost.com/brand-studio/shell/the-making-of-sustainable-mobility>.

25 ¹¹⁹ See, e.g., Moving Forward: A Path To Net-Zero Emissions By 2070 (Shell Paid Post), N.Y.
26 Times, <https://www.nytimes.com/paidpost/shell/ul/moving-forward-a-path-to-net-zero-emissions-by-2070.html>.

¹²⁰ <https://twitter.com/APIenergy/status/1325211486092845057>.

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Tomorrow begins today.

We're defined by what we pass on to the next generation. That's why, as one of North America's leading producers of natural gas, ConocoPhillips is providing clean-burning fuel to homes, schools and businesses. And, to help find long-term solutions, we're exploring new sources of secure, stable energy. So we can pass on what matters . . . to the ones who matter most.

ConocoPhillips
Energy for tomorrow

www.conocophillips.com

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22 **Figure 7:** ConocoPhillips advertisement in *The Atlantic*

23 4.131. Contrary to the impression these claims are intended to leave, natural gas is a
 24 fossil fuel that contributes substantially to climate change. It emits significant quantities of CO₂
 25 when burned and leaks methane throughout its lifecycle. Once methane leakages are considered,
 26 advantages of natural gas over other fossil fuels are reduced, if not eliminated. The IPCC

1 estimates that methane alone is responsible for more than a third of the warming the Earth has
2 experienced thus far.

3 4.132. Defendants also misleadingly market certain gasolines, motor oils, and lubricants
4 as “green,” “carbon-neutral,” “environmentally-friendly,” or “lowering emissions.” These
5 claims imply that Defendants’ products are beneficial to the climate and can help reduce
6 emissions. In reality, burning these fossil fuel products will increase emissions and worsen
7 climate change, and any comparative benefit from using Defendants’ products as opposed to
8 another motor oil, gasoline, or lubricant is negligible.

9
10 4.133. For example, Chevron advertised its Techron fuel with claims that emphasize its
11 supposed positive environmental qualities, such as: “less is more,” “minimizing emissions,” and
12 “up to 50% cleaner.”¹²¹ In a Q and A on Chevron’s website, one question says, “I care for the
13 environment. Does Techron impact my car’s emissions?” Chevron answers that “[g]asolines
14 with Techron” clean up carburetors, fuel injectors, and intake valves, “giving you reduced
15 emissions.”¹²²

16
17 4.134. Shell advertised that its Shell Nitrogen Enriched Cleaning System and V-Power
18 Nitro+ Premium “produce[s] fewer emissions” and that not using them can lead to “higher
19 emissions.”¹²³

20
21 4.135. Exxon advertises its Synergy Diesel Efficient fuel as the “latest breakthrough
22 technology” and the “first diesel fuel widely available in the US” that helps “increase fuel
23

24 ¹²¹ See, e.g., Chevron, Techron, <https://www.techron.com> (last visited Oct. 14, 2022).

25 ¹²² Id.

26 ¹²³ See, e.g., Shell, Shell Nitrogen Enriched Gasolines, <https://www.shell.us/motorist/shell-fuels/shell-nitrogen-enriched-gasolines.html> (last visited Oct. 14, 2022).

1 economy” and “[r]educe emissions and burn cleaner,” and “was created to let you drive cleaner,
2 smarter and longer.”

3 4.136. Exxon also publishes online content under the banner “Energy Factor,” wherein
4 Exxon claims that it is “develop[ing] safe and reliable energy sources for the future.” The Energy
5 Factor webpage includes posts such as “Green Motor Oil? ExxonMobil Scientists Deliver an
6 Unexpected Solution,” in which Exxon promotes its green-colored motor oil, with a heading in
7 bold typeface advertising that it can “contribute to . . . carbon dioxide emission-reduction
8 efforts.”

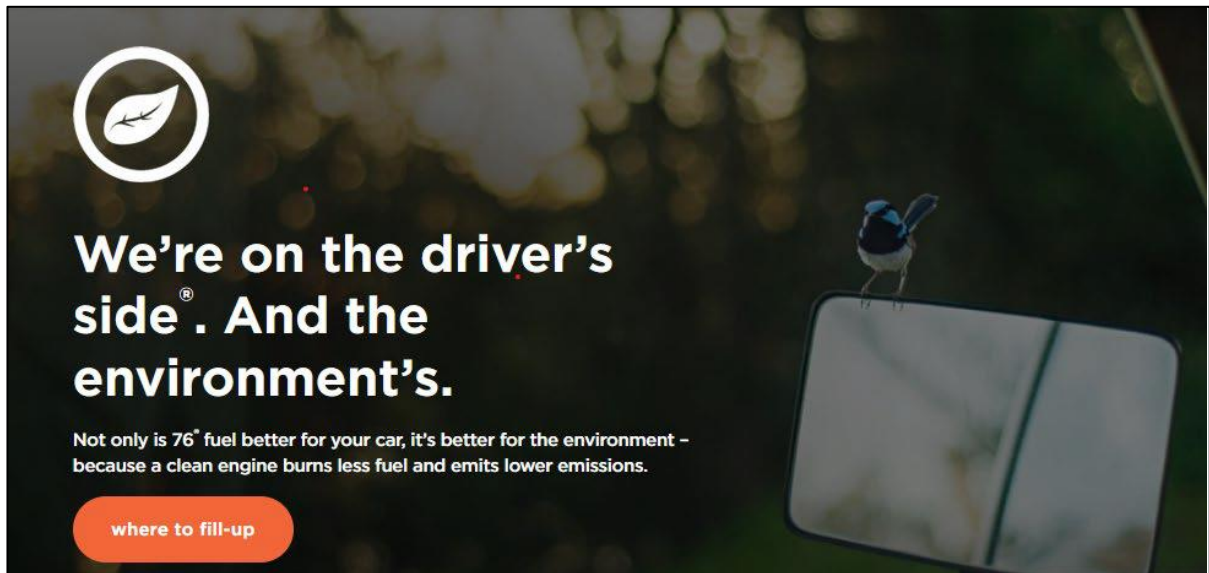
9
10 4.137. BP markets its Invigorate gasoline as a “cleaning agent that helps . . . give you
11 more miles per tank,” and “help[s] cars become clean, mean, driving machines,” and its bp Diesel
12 as “a powerful, reliable, and efficient fuel made” to help “reduce emissions.”¹²⁴

13
14 4.138. BP’s website advertises its fuel selection as “including a growing number of
15 lower-carbon and carbon-neutral products.” BP’s website also describes its Invigorate gasoline
16 product as better than “ordinary fuels” that have problems like “increased emissions.”

17 4.139. ConocoPhillips, through its 76-branded gas stations in Washington, offers for sale
18 and markets 76-brand fossil fuels. In ConocoPhillips’s advertisements for its 76-brand fuels
19 ConocoPhillips claims that its fuels “clean” a car’s engine, resulting in “lower emissions, and
20 that deposits left from other gasolines “can increase emissions.” ConocoPhillips advertises that
21 76’s fossil fuels are “better for the environment.” The 76 website for 76’s fuels contains the
22 marketing materials shown below, in which ConocoPhillips makes the claim—superimposed on
23
24

25
26 ¹²⁴ See, e.g., BP, Our Fuels, https://www.bp.com/en_us/united-states/home/products-and-services/fuels.html (last visited Oct. 14, 2022).

1 an image of a bluebird standing on a car's side mirror and looking at the viewer, with silhouetted
2 trees in the background—that 76 and its fossil fuels align with the values of environmentally
3 conscious consumers: “We’re on the driver’s side®. And the environment’s.”
4



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13 **Figure 8:** ConocoPhillips 76 Fuels Website: Top Tier Gas

14
15 4.140. Defendants’ marketing is reminiscent of the tobacco industry’s effort to promote
16 “low-tar” and “light” cigarettes as an alternative to quitting smoking after the public became
17 aware cigarettes caused cancer. Cigarette makers promoted “light” and “low tar” cigarettes as a
18 healthier choice, even though the health benefits from smoking a “light” cigarette compared to
19 a regular cigarette was negligible and any use of cigarettes was harmful. Defendants similarly
20 aim to reassure consumers that using simply choosing their gasoline and motor oils will reduce
21 their impact on climate change when in fact the benefits for the climate are negligible and
22 burning all gasolines will contribute to climate change.
23

24 4.141. Cigarette makers also used scientific and engineering terms in their advertising
25 of “light” cigarettes to enhance their credibility. Exxon’s advertising for Synergy™ and “green”
26 Mobil 1™ products similarly employs phrases like “meticulous[] engineer[ing],” “breakthrough

1 technology,” “rigorously tested in the lab,” “proprietary formulation,” “test data,” “engineers,”
2 “innovat[ion],” and “Scientists Deliver [] Unexpected Solution[s].”¹²⁵

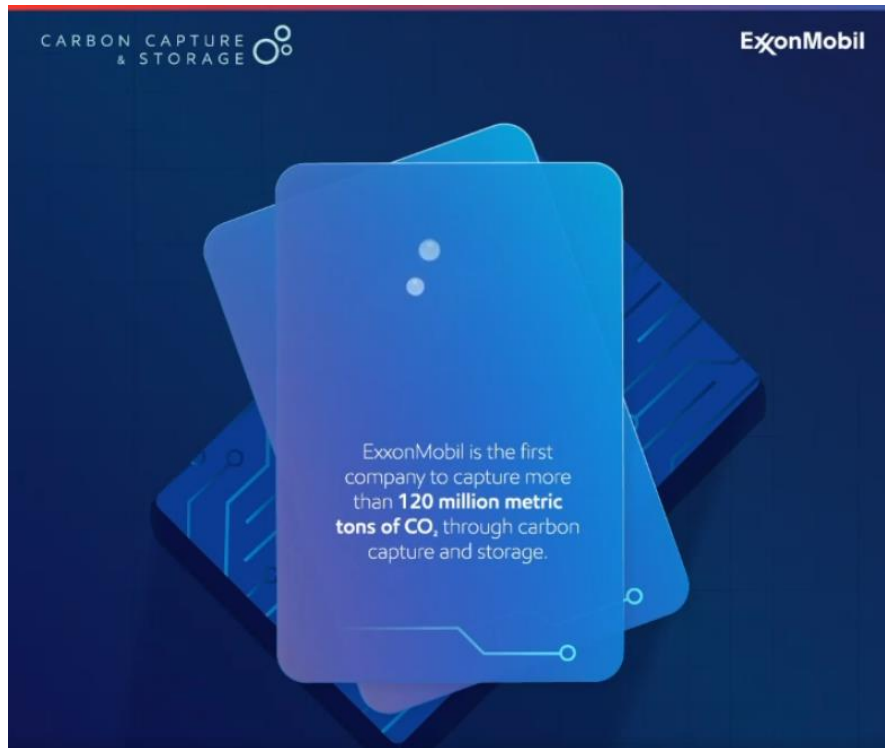
3 **J. Defendants promote unrealistic or unproven technologies as clean energy**
4 **solutions for people currently relying on Defendants’ fossil fuels.**

5 4.142. Defendants also promote unrealistic or unproven technologies as clean energy
6 solutions for the average consumer who currently relies on Defendants’ fossil fuels to power
7 their cars or homes. These ads leave people with the deceptive impression that such technologies
8 are currently viable, or soon to be viable, and will soon permit everyday consumers continued
9 reliance on fossil fuels or related infrastructure, such as gas or coal-fired power plants or internal
10 combustion engines for cars. Defendants omit material information and context for these claims,
11 as described in the below illustrative examples:

13 4.143. Exxon regularly advertises its efforts to capture and store carbon, leaving
14 consumers with the impression that Exxon does this to benefit the climate. Exxon does not
15 disclose that the massive energy required to capture that carbon is powered by fossil fuels
16 emitting more greenhouse gasses into the air¹²⁶ Further, nearly all the carbon Exxon has captured
17 was not simply stored, but used to drill for more oil.

23 ¹²⁵ See, e.g., EnergyFactor by ExxonMobil, Green Motor Oil? ExxonMobil Scientists Deliver an
24 Unexpected Solution (July 19, 2016); Exxon Mobil, Fuels, <https://www.exxon.com/en/fuels> (last
visited Oct. 14, 2022).

25 ¹²⁶ Kusnetz, Nicholas. Exxon’s Long-Shot Embrace of Carbon Capture in the Houston Area Just
26 Got Massive Support from Congress. (Sept. 25, 2022)
<https://insideclimatenews.org/news/25092022/exxon-houston-ship-channel-carbon-capture/>



4.144. For almost a decade, Exxon also claimed it had a new climate solution: algae biofuels. As recently as 2018, Exxon claimed it would be producing 10,000 barrels of algae biofuel by 2025 and that this fuel could reduce “carbon emissions from transportation” by more than fifty percent.¹²⁷ In 2019, Exxon continued to advertise that “it is growing algae for biofuels that could one day power planes, propel ships, and fuel trucks, and cut their emissions in half.”¹²⁸

4.145. Exxon ultimately invested just \$335 million of the \$600 million it had promised to develop the technology before quietly pulling the plug on the project in December 2022.¹²⁹

¹²⁷ The Future of Energy? It May Come From Where You Least Expect (ExxonMobil Paid Post), N.Y. Times, <https://www.nytimes.com/paidpost/exxonmobil/the-future-of-energy-it-may-come-from-where-you-least-expect.html>.

¹²⁸ Exxon Mobil TV Spot, ‘Alge Potential’. (Oct. 19, 2019) <https://www.ispot.tv/ad/ovGn/exxon-mobil-algae-potential>.

¹²⁹ Big oil firms touted algae as climate solution. Now all have pulled funding. The Guardian. (March 17, 2023). <https://www.theguardian.com/environment/2023/mar/17/big-oil-algae-biofuel-funding-cut-exxonmobil>.

1 4.146. On information and belief, Exxon spent nearly half as much as its actual
2 investment in developing algae biofuel on advertising its commitment to algae biofuels.¹³⁰

3 4.147. On information and belief, Exxon’s \$335 million investment in algae was far
4 short of the several billion dollars that algae researchers believe is necessary to commercialize
5 algae biofuels.¹³¹

6 4.148. In addition to not disclosing the miniscule scale of these efforts, Exxon’s ads do
7 not acknowledge that Exxon’s biodiesel fuel is generally a blend that uses only 5% to 20%
8 biofuel, with the remainder composed of fossil fuel. Thus, Exxon’s greenwashing ads
9 misleadingly overstate both the “sustainable” or “environmentally friendly” nature of its
10 biodiesel investment as well as its scale.

11
12 170. In another advertisement published in the Washington Post, Shell touts
13 hydrogen fuel cell technology, promoting hydrogen as “[o]ne of the cleaner sources” that
14 power electric vehicles, stating that “[h]ydrogen fuel cell vehicles . . . emit nothing from their
15 tailpipes but water vapor.”¹³²

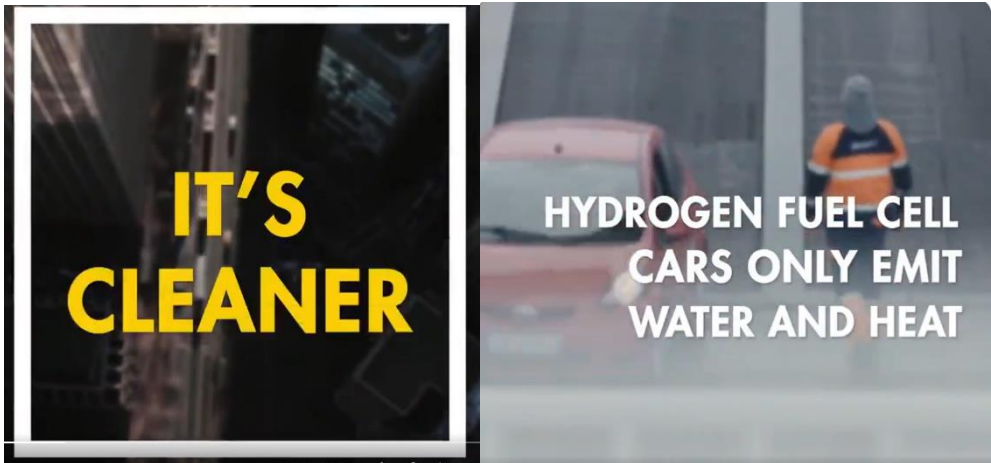
16
17 4.149. In an online video, Shell advertised hydrogen fuels for cars to potential consumers
18 in lieu of electric vehicles. Shell claimed:

19
20
21 ¹³⁰ Big oil firms touted algae as climate solution. Now all have pulled funding. The Guardian.
22 (March 17, 2023). <https://www.theguardian.com/environment/2023/mar/17/big-oil-algae-biofuel-funding-cut-exxonmobil>. (In its 12 years in the space, Exxon invested \$350m in algae biofuels, according to spokesperson Casey Norton. (Norton says that’s more than double what the company spent on touting this research in ads.)”)

23
24 ¹³¹ Big oil firms touted algae as climate solution. Now all have pulled funding. The Guardian.
25 (March 17, 2023). <https://www.theguardian.com/environment/2023/mar/17/big-oil-algae-biofuel-funding-cut-exxonmobil>.

26 ¹³² The Mobility Quandary. (Shell Paid Post). The Washington Post.
<https://www.washingtonpost.com/brand-studio/shell/the-mobility-quandary/>

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¹³³ @Shell_USA. A car that only emits water and heat? Learn more about #hydrogen, a fuel for the future that can help clean up transport today. X (formerly Twitter). (Dec. 20, 2017). https://twitter.com/Shell_USA/status/943401985193242625?ref_src=twsrc%5Etfw%7Ctwcam%5Eembeddedtimeline%7Ctwterm%5Escreen-name%3Ashell_usa%7Ctwcon%5Es1.

1 4.150. Shell admitted elsewhere – but not in these advertisements – that “most of
2 hydrogen today is produced from fossil fuels such as natural gas,” including the hydrogen that
3 Shell provided to consumers at their hydrogen fueling stations in California.¹³⁴ As of 2021, fossil
4 fuels produced more than 99 percent of hydrogen on the market.¹³⁵

5
6 4.151. As with most of Defendants’ short-lived but highly publicized investments in
7 “clean energy solutions,” Shell subsequently closed the five stations aimed at hydrogen fueling
8 for passenger cars and “confirm[ed] that Shell has discontinued its plan to build and operate
9 additional light-duty vehicle fueling stations in California.”¹³⁶

10 **K. Defendants misleadingly promote themselves as clean energy companies actively**
11 **working to achieve net-zero emissions.**

12 4.152. Defendants’ representations and omissions described above imply that
13 Defendants are clean energy companies actively working to solve climate change, but
14 Defendants do not stop there. Defendants actively promote their brand to consumers as a clean
15 energy business, even claiming that they are working to achieve net zero emissions. Defendants’
16 promotions are false, misleading, and unfairly compete with other businesses who are primarily
17 engaged in supplying clean energy.
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21 ¹³⁴ Carbon Neutral Hydrogen. Shell United States. <https://www.shell.us/motorist/shell-hydrogen-california-retail-hrs-project.html>.

22 ¹³⁵ Global Hydrogen Review 2022. International Energy Agency. (Sept. 2022) pg. 71.
23 <https://www.iea.org/reports/global-hydrogen-review-2022>.

24 ¹³⁶ Carbon Neutral Hydrogen. Shell United States. <https://www.shell.us/motorist/shell-hydrogen-california-retail-hrs-project.html>; Dokso, Anela. Shell Abandons California Hydrogen Stations. H2 Energy News. (Sept. 19, 2023). <https://energynews.biz/shell-abandons-california-hydrogen-stations/#:~:text=In%20essence%2C%20Shell%20has%20shuttered,California%20due%20to%20operational%20issues.>

1 4.153. Recognizing the potential to capture market share of “green” consumers, BP was
2 an early adopter of these tactics. For over two decades, BP claimed to consumers that it was
3 moving “beyond petroleum,” “advancing the energy transition,”¹³⁷ and “transforming itself”¹³⁸
4 to become a net zero energy business.

5
6 4.154. Beginning in 2000, BP began a \$200 million campaign claiming it was moving
7 “beyond petroleum” with advertisements portraying BP as predominantly invested in clean
8 energy sources. Messages from that campaign included some projects, plans, and an overall
9 theme that BP was going to materially reduce its emissions and transition away from petroleum:
10

11
12 **It’s time to go on a**
13 **low carbon diet.**

14
15 Cleaner fuels, natural gas, hydrogen, solar, wind . . .
some of the ways we’re trying to reduce carbon emissions.

16 bp.com

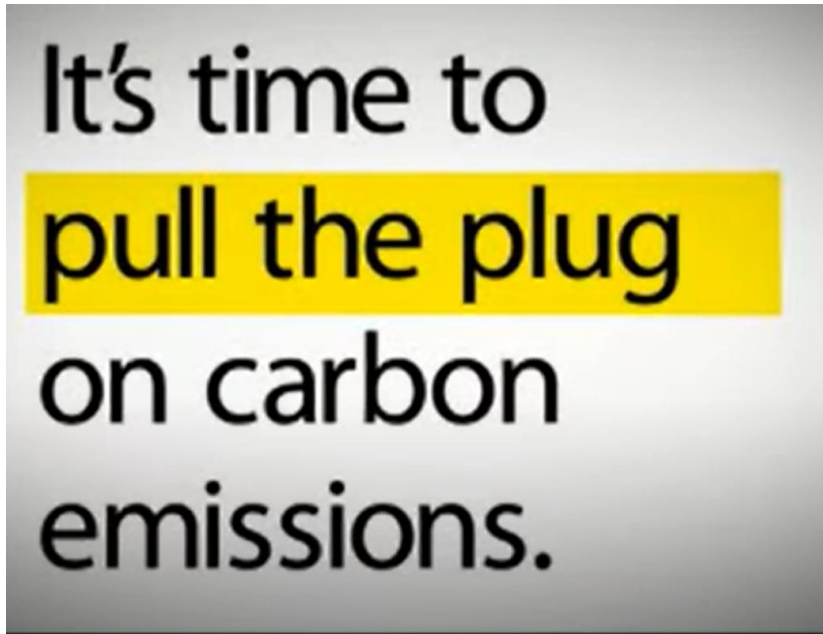
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18 beyond petroleum

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24 ¹³⁷ BP. BP’s Shift to Gas. Youtube. (Dec. 6 2017)
<https://www.youtube.com/watch?v=ILwpc5MUUM>.

25 ¹³⁸ Our Transformation. BP. (Sept. 4, 2023). <https://www.bp.com/en/global/corporate/who-we-are/our-transformation.html>.
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¹³⁹ BP Advert (Revised) Beyond Petroleum Ad. Youtube. (May 10, 2007).
<https://www.youtube.com/watch?v=irDhWudV-7w&list=PL4SVnWogxWYvFLayEJM3phaX8EbD9Pz0J&index=7>

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It's time to think outside the barrel.

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Emissions We were the first major energy company to take steps to reduce greenhouse gas emissions. One step we're taking uses recycled steam to supply power to one of our largest facilities. This process boosted the plant's performance by \$20 million, while eliminating more than 50,000 tons of emissions.

Education BP's A+ for Energy program has awarded \$4 million in grants and scholarships to 4,000 California teachers over the last two years. BP supports energy education throughout the country, from a traveling classroom that teaches alternative energy, to the Solar Decathlon in Washington, D.C.

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Environment To provide heat, power and mobility for the U.S., new pipelines have to be built. In Louisiana, BP pioneered a new standard for pipeline construction. Working with environmental groups, community leaders, even local oystermen, we produced a solution that will help preserve wetlands.



beyond petroleum®

bp.com

1 4.155. BP succeeded in persuading consumers that it was an eco-friendly company,
2 capturing consumer demand for oil companies to respond to the threat of climate change.¹⁴⁰

3 From 2000 to 2007, according to BP, its brand awareness went from four percent to 67 percent.¹⁴¹

4 4.156. In reality, BP's investments in clean energy was only a small percentage of its
5 total capital expenditure during this period. The vast majority of BP's investments during this
6 period were to increase fossil fuel exploration, production, refining, and marketing.¹⁴²

7 4.157. Though BP abandoned the "beyond petroleum" moniker in 2013, BP continues
8 to portray itself to consumers as predominantly invested in clean energy.

9 4.158. In more recent years, BP has run advertisements intended to "advance and protect
10 the role of gas – and BP – in the future of energy conversation."¹⁴³ These advertisements claim
11 natural gas is a clean energy source, similar to renewables, and, through its production of natural
12 gas, BP is "advancing the energy transition."¹⁴⁴

13 4.159. In 2019, BP's CEO announced it was, once again, time to "let people know we
14 are engaged in this big energy transition and have a big core business." BP launched the
15 "Possibilities Everywhere" campaign. The advertising campaign once again exaggerated BP
16

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19 ¹⁴⁰ Cherry, Miriam A. et al. Beyond Profit: Rethinking Corporate Social Responsibility and
20 Greenwashing After the BP Oil Disaster. Saint Louis University School of Law. (2011) pg. 1002-
21 1008. (describing the "halo created by a decade of smart advertising" that positioned BP on the
22 green side of energy development and how environmentalists had rated BP as the "eco-friendly
23 gas station choice")
24 <https://scholarship.law.slu.edu/cgi/viewcontent.cgi?article=1375&context=faculty>.

25 ¹⁴¹ Nastu, Jennifer. 'Beyond Petroleum' Pays Off for BP. Environment and Energy Leader. (Jan.
26 15, 2008) <https://www.environmentenergyleader.com/2008/01/beyond-petroleum-pays-off-for-bp/>

¹⁴² Annual Report and Accounts 2008. BP. <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/investors/bp-annual-report-accounts-2008.pdf>.

¹⁴³ Brunswick Advocacy Campaign document at 2.

¹⁴⁴ BP. BP's Shift to Gas. Youtube. (Dec. 6 2017)
<https://www.youtube.com/watch?v=ILwpc5MUMUM>

1 investments in clean energy and (alleged) support for a clean energy transition and misleadingly
2 portrayed natural gas as a clean energy similar to wind and solar power.¹⁴⁵

3 4.160. One Possibilities Everywhere advertisement from 2020, called “Advancing,” BP
4 shows imagery of drought and storms, alluding to climate change. BP then states the world needs
5 energy “that is kinder to our planet.” Such energy sources are “cleaner, greener, smarter energy.”
6 BP presents images of those energy sources: solar, hydro, and wind power alongside natural gas,
7 implying that natural gas is also a clean, green energy:
8



25 ¹⁴⁵ Farand, Chloe. BP's First Global Advertising Campaign Since Deepwater Horizon Accused
26 of Being 'Deceptive and Hypocritical'. DeSmog. <https://www.desmog.com/2019/01/29/bp-first-global-advertising-campaign-deepwater-horizon-accused-greenwashing-deceptive/>.

1 Finally, BP presents itself as leading that transition: “With our scale and know-how, our
2 partnerships and new investments, we’ll search for energy the world needs to progress, seeking
3 new possibilities in everything, everywhere.”¹⁴⁶

4
5 4.161. In another ad, called “Blade Runners,” BP described itself as “one of the major
6 wind energy businesses in the US.”¹⁴⁷ Yet, at the time of this advertisement in 2019, BP owned
7 approximately 1.7 gigawatts (“GW”) of wind capacity, which is dwarfed by other companies
8 including GE, Siemens, and Vestas (with about 39 GW, 26 GW, and 23 GW capacities,
9 respectively).¹⁴⁸ And BP’s total wind capacity was just roughly one percent of total installed
10 wind power in the United States.¹⁴⁹

11 4.162. WPP, one of BP’s public relations firms, describes BP’s strategy at this time to
12 portray BP as “advancing the energy transition”¹⁵⁰:
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18 ¹⁴⁶ BP Keep Advancing Advertisement.
19 [https://www.dropbox.com/s/dgzea4w30tfbnc9/2020_B143196_BP_Advancing_video_edits__
US-UK_MASTER_PR002.mp4?dl=0.](https://www.dropbox.com/s/dgzea4w30tfbnc9/2020_B143196_BP_Advancing_video_edits_US-UK_MASTER_PR002.mp4?dl=0)

20 ¹⁴⁷ Blade Runners. BP. (2019).
21 [https://web.archive.org/web/20191130192545/https://www.bp.com/en/global/corporate/who-
we-are/possibilities-everywhere/wind-and-natural-gas.html.](https://web.archive.org/web/20191130192545/https://www.bp.com/en/global/corporate/who-we-are/possibilities-everywhere/wind-and-natural-gas.html)

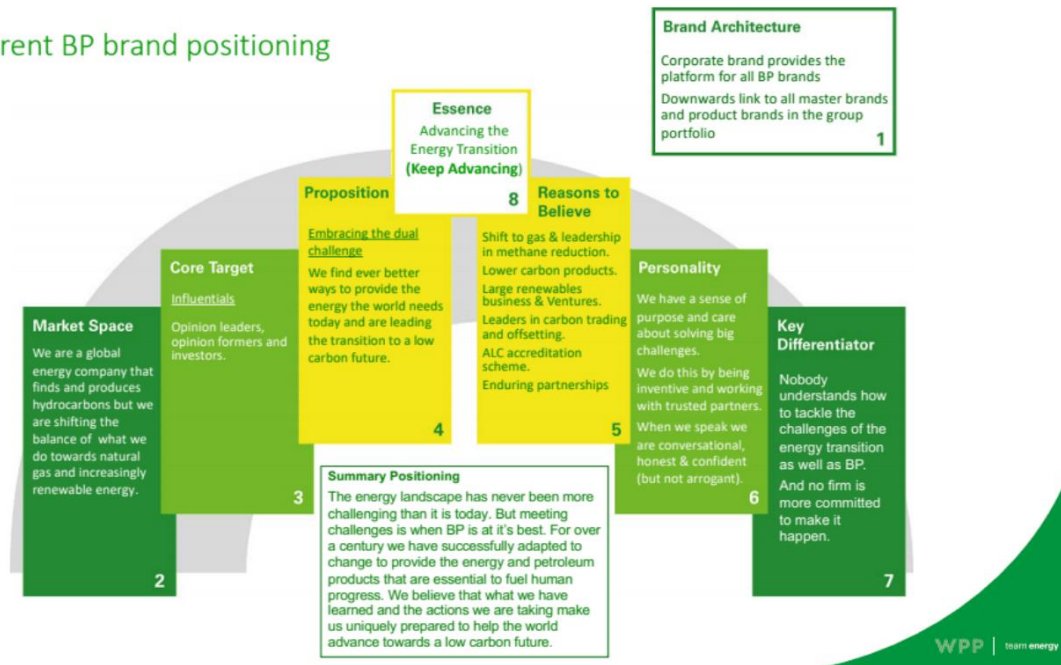
22 ¹⁴⁸ For BP’s wind capacity, see: Press Release. BP Advances Offshore Wind Growth Strategy
23 (Feb. 8, 2021), [https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bp-
advances-offshore-wind-growth-strategy.html](https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bp-advances-offshore-wind-growth-strategy.html) For wind capacity of GE, Siemens, and Vestas,
see: McClain, Abby. The 15 Largest Wind Power Companies in the World (April 18, 2023),
[https://www.zippia.com/advice/largest-wind-power-companies/.](https://www.zippia.com/advice/largest-wind-power-companies/)

24 ¹⁴⁹ Ingram, Elizabeth. U.S. wind capacity grew 8% in 2018, AWEA says. Renewable Energy
25 World. (April 10, 2019). [https://www.renewableenergyworld.com/wind-power/onshore/u-s-
wind-capacity-grew-8-in-2018-awea-says/.](https://www.renewableenergyworld.com/wind-power/onshore/u-s-wind-capacity-grew-8-in-2018-awea-says/)

26 ¹⁵⁰ BP Creative Workshop Briefing Document. WPP. (Jan. 14, 2020)
[https://www.documentcloud.org/documents/20073850-bp-creative.](https://www.documentcloud.org/documents/20073850-bp-creative)

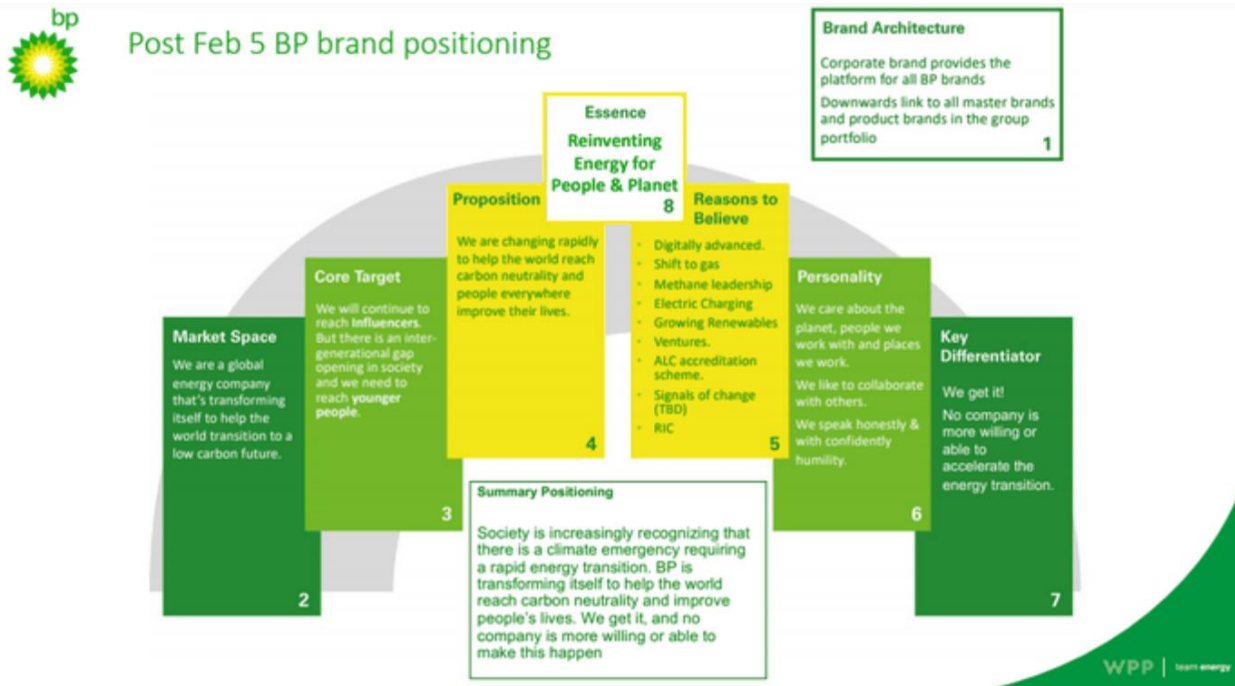


Current BP brand positioning



4.163. Acknowledging that “[s]ociety is increasingly recognizing that there is a climate emergency requiring a rapid energy transition,” BP then adjusted their brand positioning to reinvent itself as “transforming . . . to help the world reach carbon neutrality and improve people’s lives. We get it, and no company is more willing or able to make this happen.”¹⁵¹

¹⁵¹ BP Creative Workshop Briefing Document, WPP. (Jan. 14, 2020) <https://www.documentcloud.org/documents/20073850-bp-creative>.



4.164. Other Defendants have followed suit, seeking to portray themselves as clean energy businesses leading the transition away from fossil fuels.

4.165. Shell launched the “Make the Future” campaign, which presents various *ideas* of how one could reduce emissions or develop clean energy as well as Shell’s “target” to achieve net zero emissions.

4.166. For example, one of Shell’s Make the Future advertisements included a video describing the company’s “target” to achieve net zero emissions¹⁵²:

¹⁵² Sponsored Advertisement by Shell. By working together, we can achieve a net-zero emissions world. Click to learn more. #MakeTheFuture. Facebook. (May 10, 2021 to June 27, 2021). https://www.facebook.com/ads/library/?active_status=all&ad_type=political_and_issue_ads&country=US&id=487103519201014&view_all_page_id=200969413280005&search_type=page&media_type=all

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1 4.167. If a person clicks on the link to Shell’s website, they will see images of wind
2 turbines and solar panels as they scroll through pages of how Shell is “Tackling climate change,”
3 helping to achieve the goal “laid out in the Paris Agreement,” and is “transforming our business”
4 to meet their target of net zero emissions. They will read about how Shell provides renewable
5 electricity and electric vehicle charging, is restoring habitats and clean water through
6 reforestation efforts, and even has an “approach to a fair and just transition.” All this gives an
7 impression that Shell *is*, currently, transforming its business to reduce emissions. Yet, after
8 scrolling through all this information, the reader may click on a “legal disclaimer.” Buried in the
9 middle of the disclaimer, Shell states: “Shell's operating plans, outlooks, budgets and pricing
10 assumptions do not reflect our net-zero emissions target.”¹⁵³
11

12 4.168. One of Shell’s public relations firms aptly describes the intent of Shell’s Make
13 The Future campaign as follows:¹⁵⁴
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22 ¹⁵³ Our Climate Target. Shell United States. [https://www.shell.us/energy-and-innovation/our-climate-
23 target.html?utm_source=facebook&utm_medium=social&utm_content=fv_4_0015&utm_cam-
24 paign=nz_ld_us_apr-
25 jun_2021&linkId=117937083#iframe=L3dlYmFwcHMvY2xpbWF0ZV9hbWJpdGlubl9VU19
26 OZXRfemVyb18yMDIyLw](https://www.shell.us/energy-and-innovation/our-climate-target.html?utm_source=facebook&utm_medium=social&utm_content=fv_4_0015&utm_campaign=nz_ld_us_apr-jun_2021&linkId=117937083#iframe=L3dlYmFwcHMvY2xpbWF0ZV9hbWJpdGlubl9VU19OZXRfemVyb18yMDIyLw)

¹⁵⁴ Shell South Pole Energy Challenge. Edelman via archive.today. (Acc. Jul 25, 2023).
<https://archive.ph/IZ8Qz>

1 As part of their efforts to make consumers, particularly millennials,
2 aware of their commitment to cleaner energy, Shell launched the
3 #makethefuture campaign. The company tasked Edelman with the job
4 of giving millennials a reason to connect emotionally with Shell's
5 commitment to a sustainable future. We needed them to forget their
6 prejudices about "big oil" and think differently about Shell.

7 4.169. Following an advertising campaign linking Shell to a polar expedition using
8 renewable fuels, Edelman stated the "Business Outcome" of its campaign, which included:
9

- 10 • Audience members are 31% more likely to believe Shell is
11 committed to cleaner fuels.
- 12 • Positive attitudes towards the brand increased by 12%

13 4.170. Mediacom, another public relations firm working on Shell's "Make the Future"
14 campaign, candidly stated that "Shell's 'Make The Future' communications ultimately seek to
15 change or enhance the perception of the brand among all potential customers and
16 stakeholders."¹⁵⁵ The "target audience" for their project included an "'Energy Engaged
17 Customer' (EEC) audience – 18-54 years old, curious, open-minded and outward-looking
18 individuals who are also potential customers of Shell's products and services. Our mission was
19 to recruit, engage and ultimately improve perception of the Shell brand." To deliver on the
20 mission, the firm would create content showing *ideas* to decarbonize the home, reduce emissions
21 of passenger cars, make deliveries more efficient, and plan an all-electric journey.
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25 ¹⁵⁵ Winner 2021, Corporate Influencer, Shell, Mediacom, Pitch the Future. World Media Group.
26 (2021). <https://world-media-group.com/case-study/pitch-the-future-case-study-2021/>

1 4.171. In other words, Shell’s advertising campaign focuses on its net zero “target,” as
2 well as ideas or possibilities to decarbonize, leaving consumers with the impression that this is
3 a primary focus of Shell’s business.

4 4.172. In reality, Shell planned to spend four times more money on oil and gas
5 development than on renewable technology in 2022.¹⁵⁶ Independent analysis of Shell’s spending
6 plans shows that the company will be emitting more greenhouse gas by 2030 than it currently
7 emits.¹⁵⁷ On its current trajectory, Shell is projected to miss its emissions reduction targets for
8 both 2030 and 2050.¹⁵⁸

9 4.173. In June 2023, the U.K.’s Advertising Standards Authority banned Shell’s
10 marketing campaign describing Shell as providing renewable energy, installing electric vehicle
11 charging, and driving the energy transition. The Advertising Standards Authority found
12 consumers were likely to interpret the marketing materials as making a “broader claim about
13 Shell as a whole providing cleaner energy.” Since the “vast majority” of its operations was not
14 clean energy, the campaign was misleading.¹⁵⁹

15 4.174. ConocoPhillips claims its “actions for our oil and gas operations are aligned with
16 the aims of the Paris Agreement” and touts its actions and achievements toward the net-zero
17 energy transition. ConocoPhillips also touts its “Net-Zero Roadmap,” which it describes as a
18 “Paris-Aligned Climate Risk Strategy” and “a comprehensive framework with an ambition to
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24 ¹⁵⁶ Simon Jack, Oil Giant Shell Says It Needs Oil to Pay for Green Shift, BBC News (Nov. 3,
2021), <https://www.bbc.com/news/business-59154930>.

25 ¹⁵⁷ Id.

26 ¹⁵⁸ Id.

¹⁵⁹ Id.

¹⁵⁹ Id.

1 become a net-zero company for operational emissions by 2050.”¹⁶⁰ ConocoPhillips thus focuses
2 on its “operational” emissions while ignoring that combustion of its product continues to emit
3 large amounts of greenhouse gases.

4 4.175. In June 2023, ConocoPhillips published a profile on its Methane Measurement
5 Manager Milind Bhatte, who it claims is helping move the company to its “goal” of “net-zero.”¹⁶¹
6

7 4.176. Chevron and Exxon have engaged in similar efforts to portray themselves as
8 predominantly invested in clean energy and leading the energy transition.

9 4.177. Functionally, Defendants have cut fossil fuels from their branding efforts--but not
10 their business operations. According to one analysis, between 2010 and 2018, BP spent 2.3% of
11 total capital spending on low-carbon energy sources, Shell spent 1.2%, Chevron and Exxon just
12 0.2% each, and ConocoPhillips 0.0%.¹⁶²
13

14 4.178. Rather than reducing emissions, Defendants are ramping up fossil fuel production
15 like never before. Exxon is projected to increase oil production by more than 35% between 2018
16 and 2030—a sharper rise than over the previous 12 years.¹⁶³ Shell is forecast to increase output
17 by 38% by 2030, by increasing its crude oil production by more than half and its gas production
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21 ¹⁶⁰ <https://www.conocophillips.com/>; <https://www.conocophillips.com/sustainability/low-carbon-technologies/operational-net-zero-roadmap/>.

22 ¹⁶¹ https://www.conocophillips.com/spiritnow/story/milind-bhatte-progressing-toward-net-zero/?utm_medium=osocial&utm_source=Twitter&utm_content=image&utm_term=post:1666504399403316370&utm_campaign=campaign:1601648882546323569.

23 ¹⁶² Anjali Raval & Leslie Hook, Oil and Gas Advertising Spree Signals Industry’s Dilemma,
24 Financial Times (Mar. 6, 2019), <https://www.ft.com/content/5ab7edb2-3366-11e9-bd3a-8b2a211d90d5>.

25 ¹⁶³ Jonathan Watts et al., Oil Firms to Pour Extra 7m Barrels Per Day Into Markets, Data Shows,
26 The Guardian (Oct. 10, 2019), <https://www.theguardian.com/environment/2019/oct/10/oil-firms-barrels-markets>.

1 by over a quarter.¹⁶⁴ BP is projected to increase production of oil and gas by 20% by 2030.¹⁶⁵
2 Chevron set an oil production record in 2018 of 2.93 million barrels per day.¹⁶⁶ A 2019 investor
3 report touted Chevron’s “significant reserve additions in 2018” in the multiple regions in North
4 America and around the world, as well as significant capital projects involving construction of
5 refineries worldwide.¹⁶⁷ ConocoPhillips’ new Willow Project in Alaska is expected to produce
6 approximately 576 million barrels of oil, with associated indirect GHG emissions equivalent to
7 239 million tons of CO₂.

9 **L. Alternative energy technologies, including some developed by Defendants, could**
10 **have replaced or significantly reduced fossil fuel dependence.**

11 4.179. Opportunities to reduce the use of fossil fuels and associated greenhouse
12 emissions, mitigate the harms associated with the use and consumption of fossil fuels, and
13 promote development of alternative, clean energy sources have been available for decades.
14 Indeed, Defendants themselves developed some of these technologies, though they did not
15 promote them. Examples include, but are not limited to:

16 a. In 1963, Esso (Exxon Mobil) obtained multiple patents on technologies
17 for fuel cells,¹⁶⁸ including on the design of a fuel cell and necessary electrodes,¹⁶⁹ and on a

20 ¹⁶⁴ Id.

21 ¹⁶⁵ Id.

22 ¹⁶⁶ Kevin Crowley & Eric Roston, Chevron Aligns Strategy with Paris Deal But Won’t Cap
23 Output, Bloomberg (Feb. 7, 2019), <https://www.bloomberg.com/news/articles/2019-02-07/chevron-pledges-alignment-with-paris-accord-but-won-t-cap-output>.

24 ¹⁶⁷ Chevron, Chevron 2019 Investor Presentation (Feb. 2019), <https://chevroncorp.gcs-web.com/static-files/c3815b42-4deb-4604-8c51-bde9026f6e45>.

25 ¹⁶⁸ Fuel Cells, Hydrogen and Fuel Cell Technologies Office. Department of Energy: Office of
Energy Efficiency and Renewable Energy. <https://www.energy.gov/eere/fuelcells/fuel-cells>.

26 ¹⁶⁹ ExxonMobil Research Engineering Co., Patent US3116169A: Fuel cell and fuel cell
electrodes (granted Dec. 31, 1963), <https://www.google.com/patents/US3116169>.

1 process for increasing the oxidation of a fuel, specifically methanol, to produce electricity in a
2 fuel cell.¹⁷⁰

3 b. In 1970, Esso (Exxon Mobil) obtained a patent for a “low-polluting
4 engine and drive system” that used an interburner and air compressor to reduce pollutant
5 emissions, including CO₂ emissions, from gasoline combustion engines (the system also
6 increased the efficiency of fossil fuels used in such engines, thereby lowering the amount of
7 fossil fuel product necessary to operate engines equipped with this technology).¹⁷¹

8 c. A 1989 article in a publication from Exxon Corporate Research for
9 company use only stated: “Since energy generation from fossil fuels dominates modern CO₂
10 emissions, strategies to limit CO₂ growth focus near term on energy efficiency and long term on
11 developing alternative energy sources. Practiced at a level to significantly reduce the growth of
12 greenhouse gases, these actions would have substantial impact on society and our industry—
13 near-term from reduced demand for current products, long term from transition to entirely new
14 energy systems.”¹⁷²

15 d. In 1973, Shell obtained a patent for a process to remove acidic gases,
16 including CO₂, from gaseous mixtures.¹⁷³

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22 ¹⁷⁰ ExxonMobil Research Engineering Co., Patent US3113049A: Direct production of electrical
energy from liquid fuels (granted Dec. 3, 1963), <https://www.google.com/patents/US3113049>.

23 ¹⁷¹ ExxonMobil Research Engineering Co., Patent US3513929A: Low-polluting engine and
drive system (granted May 26, 1970), <https://www.google.com/patents/US3513929>.

24 ¹⁷² Flannery, Brian. Greenhouse Science, Connections: Corporate Research, Exxon Research and
Engineering Company (Fall 1989), [http://www.climatefiles.com/exxonmobil/1989-exxon-
mobil-article-technologys-place-marketing-mix](http://www.climatefiles.com/exxonmobil/1989-exxon-mobil-article-technologys-place-marketing-mix).

25 ¹⁷³ Shell Oil Co., Patent US3760564A: Process for the removal of acidic gases from a gas
mixture, (granted Sept. 25, 1973), <https://www.google.com/patents/US3760564A>.

1 e. Phillips Petroleum Company (ConocoPhillips) obtained a patent in 1966
2 for a “Method for recovering a purified component from a gas” outlining a process to remove
3 carbon from natural gas and gasoline streams.¹⁷⁴

4 4.180. Defendants have been aware for decades that clean energy presents a feasible
5 alternative to fossil fuels. In 1980, Exxon forecasted that non-fossil fuel energy sources, if
6 pursued, could penetrate half of a competitive energy market in approximately 50 years.¹⁷⁵ This
7 internal estimate was based on extensive modeling within the academic community, including
8 research from David Rose at the Massachusetts Institute of Technology which concluded that a
9 transition to non-fossil energy could be achieved in around 50 years. Exxon circulated an internal
10 memo approving of Rose’s conclusions, stating they were “based on reasonable assumptions.”¹⁷⁶

11 4.181. Likewise, a 1987 Shell briefing on “Synthetic Fuels and Renewable Energy”
12 noted that while “immediate prospects” were “limited,” “nevertheless it is by pursuing
13 commercial opportunities now and in the near future that the valuable experience needed for
14 further development will be gained.” The brief also noted that “the task of replacing oil resources
15 is likely to become increasingly difficult and expensive and there will be a growing need to
16 develop lean, convenient alternatives. Initially these will supplement and eventually replace
17 valuable oil products. Many potential energy options are as yet unknown or at very early stages
18 of research and development. New energy sources take decades to make a major global
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23 ¹⁷⁴ Phillips Petroleum Co., Patent US3228874A: Method for recovering a purified component
from a gas (granted Jan. 11, 1966), <https://patents.google.com/patent/US3228874>.

24 ¹⁷⁵ H. Shaw and P. P. McCall, Exxon Research and Engineering Company’s Technological
Forecast: CO2 Greenhouse Effect 5 (Dec. 18, 1980). [https://insideclimatenews.org/wp-](https://insideclimatenews.org/wp-content/uploads/2015/09/Technological-Forecast-on-CO2-Greenhouse-Effect-1980.pdf)
25 [content/uploads/2015/09/Technological-Forecast-on-CO2-Greenhouse-Effect-1980.pdf](https://insideclimatenews.org/wp-content/uploads/2015/09/Technological-Forecast-on-CO2-Greenhouse-Effect-1980.pdf).

26 ¹⁷⁶ CO2 Greenhouse Effect: A Technical Review, Coordination and Planning Division, Exxon
Research and Engineering Company 18 (Apr. 1, 1982).

1 contribution. Sustained commitment is therefore needed during the remainder of this century to
2 ensure that new technologies and those currently at a relatively early stage of development are
3 available to meet energy needs in the next century.”¹⁷⁷

4 4.182. Despite the knowledge that alternative energies presented a viable alternative and
5 that it was important to begin the transition as soon as possible, Defendants chose to delay this
6 transition by deceiving consumers and the public.

7
8 **M. Defendants’ wrongful conduct is a proximate cause of the Tribe’s harms.**

9 4.183. Defendants’ actions in concealing the dangers of, promoting false and misleading
10 information about, and engaging in massive campaigns to promote increasing use of fossil fuels
11 have succeeded in misleading consumers and the public in Washington, including on the Makah
12 Reservation, and elsewhere about the climate impacts of using fossil fuels, depriving people of
13 the truth about the consequences of their decisions to buy and use fossil fuels and technologies
14 dependent on fossil fuels. Further, Defendants’ conduct has obstructed and delayed the
15 introduction and adoption of alternative, low-carbon technologies. Defendants have succeeded
16 in delaying the transition to alternative, low-carbon technologies, deepened consumers’
17 dependence on fossil fuels, driven increased use of oil and gas, and contributed substantially to
18 the buildup of carbon dioxide in the atmosphere that causes global warming and its physical,
19 environmental, and socioeconomic consequences, including those affecting and harming the
20 Makah Tribe.
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25 ¹⁷⁷ Synthetic Fuels and Renewable Energy, Shell Service Briefing, no. 2, 1987,
26 <https://assets.documentcloud.org/documents/4411089/Document2.pdf>.

1 4.184. Defendants' deceptive and tortious conduct as described in this Complaint is a
2 proximate cause of devastating climate change impacts to the Makah Tribe, including: sea-level
3 rise, more frequent and intense rainfall, and flooding, more frequent and intense heat waves,
4 more frequent and intense droughts, more frequent, hotter, and more devastating wildfires, ocean
5 acidification, degradation of air and water quality, harms to human health, and loss of habitat
6 and species.
7

8 4.185. The increased consumption of fossil fuels induced by the Defendants' tortious
9 and deceptive conduct caused, and will continue to cause, the release of huge amounts of
10 otherwise avoidable greenhouse gases, thereby ensuring that the damage to the Makah Tribe
11 resulting from climate change will be severe and ongoing for decades to come.
12

13 **N. The Tribe has sustained, and will sustain, substantial harms and losses.**

14 4.186. The Tribe has incurred, and will foreseeably continue to incur, injuries and
15 damages of increasing severity due to the climate crisis proximately caused by Defendants'
16 tortious and deceptive conduct as described in this Complaint. These injuries and damages
17 include but are not limited to: injury or destruction of Tribal-owned or -operated facilities and
18 property deemed critical for operations, utility services, and risk management, destruction of
19 Tribal natural resources, including forest lands and coastal resources, as well as other assets
20 essential to community health, safety, and well-being; increased planning and preparation costs
21 for community adaptation and resilience to climate change's effects; and increased costs
22 associated with public health impacts, environmental impacts, and economic impacts.
23

24 4.187. Specifically:
25
26

1 a. With its reservation surrounded by ocean waters, the Makah Tribe is
2 particularly vulnerable to severe harms and damages from sea-level rise. The Tribe has
3 experienced and will continue to experience significant and accelerating sea-level rise over the
4 coming decades.¹⁷⁸ The Tribe's residents and its essential governmental infrastructure at Neah
5 Bay are at high risk of coastal flooding now and in the coming decades.
6

7 b. The destructive force and flooding potential from storm surges during
8 coastal storms and other weather events have increased as the mean sea level of the Makah
9 Reservation has increased, and the combined effects of storm surge and sea-level rise will
10 continue to exacerbate flooding impacts upon the Tribe and its Reservation. Even if all carbon
11 emissions were to cease immediately, the Tribe would continue to experience sea-level rise due
12 to the greenhouse gases already released from burning fossil fuels, and the lag time between
13 emissions and sea-level rise.
14

15 c. Climate change is expected to significantly alter the frequency and
16 intensity of precipitation events on and affecting the Makah Reservation. By 2100, annual
17 precipitation levels on the Makah Reservation, are projected to rise by up to 8.5 inches.¹⁷⁹
18

19 d. The Tribe has already incurred significant costs on projects to address sea-
20 level rise, including but not limited to: planning for and moving governmental infrastructures,
21 service facilities, and housing for the Tribe's citizens to higher ground and planning for
22 adaptation and/or rerouting reservation roads that are being destroyed by sea-level rise, attending
23 storm surges, and flooding.
24

25 _____
26 ¹⁷⁸ <https://climate.northwestknowledge.net/NWTOOLBOX/tribalProjections.php>.

¹⁷⁹ <https://climate.northwestknowledge.net/NWTOOLBOX/tribalProjections.php>.

1 e. Climate change is causing more extreme weather events in and on the
2 Makah Reservation, with attendant physical and environmental consequences, including coastal
3 flooding, coastal erosion, inland flooding, extreme heat events, and drought.

4 f. Climate change is reducing winter snow pack, increasing surface water
5 temperatures, reducing low flows while increasing peak flows during extreme precipitation
6 events, threatening aquatic life as well as the Tribe's water supplies.

7 g. Oceans are acidifying at an alarming rate because of fossil-fuel burning,
8 endangering the Tribe's coastal ecosystems and economy.

9 h. The average air temperature has increased and will continue to increase
10 in and on the Makah Reservation due to climate change. Annual average daily temperatures on
11 the Reservation have already increased over 2° compared to historic levels, and are projected to
12 increase as much as 8°F over historic levels by the end of the century. Similarly, the number of
13 very warm days (maximum temperature above 86°F) is projected to increase from 1 per year to
14 as many as 15 per year by the end of the century.¹⁸⁰ Warming air temperatures lead to poorer
15 air quality, more heat waves, expanded pathogen and pest ranges, bigger, more intense, and more
16 destructive wildfires, thermal stress for native flora and fauna, and threats to human health—
17 such as from heat stroke and dehydration, due to increased evaporation and demand, and
18 increased allergen exposure. Rising air temperatures will increase ground-level concentrations
19 of ozone and particulate matter, raising the incidence of serious health risks like respiratory
20 distress, cancer, chronic obstructive pulmonary disease (“COPD”), and cardiovascular disease
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26 ¹⁸⁰ <https://climate.northwestknowledge.net/NWTOOLBOX/tribalProjections.php>.

1 among Makah citizens, particularly among children, the elderly, and other vulnerable Makah
2 citizens.

3 i. The Tribe’s expansive forests, an important economic resource for the
4 Tribe, are vulnerable to the consequences of a warming climate. Pests and invasive species are
5 also expected to take advantage of warmer temperatures, declines in soil moisture, and
6 hydrologic cycle disruption to spread into new areas. In addition, rising temperatures and more
7 frequent droughts lead to a longer and more intense wildfire season.
8

9 4.188. The Tribe has already invested heavily in and is planning, at significant expense,
10 adaptation and mitigation strategies to address climate change-related impacts to mitigate and/or
11 prevent injuries to itself and its citizens. These efforts include, but are not limited to, planning
12 for and relocating housing for Makah citizens to higher ground, planning for and moving
13 governmental infrastructure and services to higher ground, and planning for the redesign and/or
14 relocation of reservation roads.
15

16 V. LEGAL CLAIMS

17 COUNT ONE

18 PUBLIC NUISANCE – CH. RCW 7.48

19 5.1. The Tribe incorporates all the above paragraphs here.

20 5.2. Under RCW 7.48.120, “[n]uisance consists in unlawfully doing an act, or omitting
21 to perform a duty, which act or omission either annoys, injures or endangers the comfort, repose,
22 health or safety of others, offends decency, or unlawfully interferes with, obstructs or tends to
23 obstruct, or render dangerous for passage, any lake or navigable river, bay, stream, canal or basin,
24 or any public park, square, street or highway; or in any way renders other persons insecure in life,
25 or in the use of property.” An actionable nuisance subject to damages and other relief includes
26

1 “whatever is injurious to health or indecent or offensive to the senses . . . so as to essentially interfere
2 with the comfortable enjoyment of the life and property.” *Id.* 7.48.010. “A public nuisance is one
3 which affects equally the rights of an entire community or neighborhood, although the extent of the
4 damage may be unequal.” *Id.* 7.48.130.

5
6 5.3. Defendants, individually and in concert with each other, have engaged, and
7 continue to engage in, unlawful, negligent, reckless, knowing, and/or intentional tortious conduct.

8 Such conduct includes:

9 a. promoting doubt in the public’s mind about the existence, causes, and
10 effects of climate change;

11 b. promoting the sale and use of fossil fuels without warning consumers
12 that using fossil fuels would cause dangerous climate change;

13 c. promoting the sale and use of fossil fuels that Defendants knew to be
14 hazardous and knew would cause or exacerbate climate change and related consequences,
15 including, but not limited to, sea-level rise, drought, extreme precipitation, and extreme heat;

16 d. promoting the sale and use of fossil fuels that Defendants knew to be
17 hazardous and knew would cause or exacerbate climate change and related consequences,
18 including, but not limited to, sea-level rise, drought, extreme precipitation events, and extreme
19 heat events;
20

21 e. concealing the hazards that Defendants knew would result from the
22 normal use of their fossil fuels by misrepresenting, and casting doubt on, the integrity of
23 scientific information related to climate change;
24
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26

1 f. promoting fossil fuels for uses that Defendants knew would be
2 hazardous to consumers, the public, and the Tribe;

3 g. disseminating and funding the dissemination of information that
4 misleads consumers and the public regarding the known and foreseeable risk of climate change
5 and its consequences, which follow from the normal, intended use of fossil fuels;

6 h. misleadingly promoting fossil fuel products as sustainable, clean energy
7 products;

8 i. misleadingly presenting themselves as clean energy companies who are
9 committed to reducing emissions; and

10 j. misleadingly promoting their investments in alternative technologies as
11 capable of reducing emissions on a large-scale in the near-term.
12

13
14 5.4. Defendants' tortious conduct has caused harms to public health and property, as
15 well as the ability of the Makah Tribe and its citizens to comfortably enjoy life and property.
16 Defendants' campaign of deception has been pervasive and long-lasting. Their willful campaign
17 has influenced the public's purchasing and investment decisions for decades, driving increased
18 demand for fossil fuels. It has also reduced demand for, and investment in, clean energy, thereby
19 delaying the clean energy transition. This increased demand directly led to increased greenhouse
20 gas emissions and is a substantial factor causing the Tribe's injuries.
21

22 5.5. Defendants' conduct is the proximate cause of the Tribe's injuries. Defendants
23 knew that continued fossil fuel consumption would lead to a climate crisis. They nonetheless
24 chose to engage in a sophisticated deception campaign that had the purpose and effect of
25
26

1 sustaining, and inflating, fossil fuel consumption. The Tribe's climate injuries are the direct and
2 foreseeable result of Defendants' tortious conduct.

3 5.6. The Tribe has already suffered substantial injuries, such as damages to
4 infrastructure, governmental services facilities, Tribal residences, and reservation roads due to
5 sea-level rise with attending storm surges and flooding and changes in rainfall patterns resulting
6 in flooding.
7

8 5.7. Defendants' tortious conduct has specially harmed the Tribe, and will continue to
9 do so. The Tribe has had to spend millions of dollars to protect its infrastructure, governmental
10 services facilities, Tribal residences, and reservation roads from sea-level rise, with attending
11 storm surges and flooding, and from changes in rainfall patterns resulting in flooding. Such
12 expenditures will increase in the coming years.
13

14 5.8. Defendants' ongoing interference with public rights is substantial and
15 unreasonable. The harm to the Tribe is severe and more than the Tribe should be required to bear
16 without compensation. Defendants' deceptive acts and omissions also lack any social utility
17 because there is no utility in deceiving and misleading the public.

18 5.9. Defendants' tortious and deceptive conduct described in this Complaint is
19 therefore a proximate cause of an unreasonable and substantial interference with common rights
20 held by the residents of the Makah Reservation, as well as all harms flowing from that public
21 nuisance.
22

23 **COUNT TWO**
24 **WASHINGTON PRODUCT LIABILITY ACT, FAILURE TO WARN – RCW 7.72**

25 5.10. The Tribe incorporates all above paragraphs by reference here.
26

1 5.11. Under the Washington Product Liability Act, a defendant manufacturer is liable for
2 failure to warn at the time of manufacture if: (1) defendants' products were not reasonably safe at
3 the time of manufacture because defendants failed to adequately warn of those products' risks; and
4 (2) the failure to adequately warn caused harm. *See* RCW 7.72.030(1)(b). A manufacturer is liable
5 for failing to warn after manufacture when it learns of or should have learned of a danger connected
6 with its product after it was manufactured. In that instance, the manufacturer must provide warnings
7 as a reasonably prudent manufacturer would do under the circumstances and is liable for any
8 damages that its failure to warn caused. *See* RCW 7.72.030(1)(c). A product seller other than a
9 manufacturer (including wholesalers, distributors, and retailers) is liable for negligence, including
10 for negligently failing to warn, and for misrepresentations and intentional concealment of information
11 about the product. *See* RCW 7.72.040(1)(a) and (c).
12

13 5.12. Defendants' fossil-fuel products were, and are, not reasonably safe because
14 Defendants have failed to warn of the catastrophic risks to the climate from fossil fuel combustion.
15 At the time of manufacture, the likelihood that Defendants' fossil-fuel products would cause
16 catastrophic harm—including sea level rise and more frequent and intense flooding, drought, heat
17 waves, and wildfires—rendered Defendants' failures to warn inadequate. Defendants' concomitant
18 campaign to deceive the public about climate change and the role of fossil fuels in causing it further
19 made warnings necessary.
20

21 5.13. Post-manufacture, Defendants acquired increasingly detailed and sophisticated
22 knowledge of the catastrophic effects of unabated fossil fuel use. As a result, these Defendants had
23 a duty to inform and warn users of the risks to the climate of which they had knowledge. Defendants
24 breached this duty by not only failing to warn or inform users of the climate-disruptive effects of
25
26

1 continued use of fossil fuels, but also by continuing to deceptively attack climate science and to
2 promote themselves and fossil fuels as environmentally-friendly and sustainable.

3 5.14. Further, those Defendants acting primarily as wholesalers, distributors and/or
4 retailers of fossil fuel products at all relevant times knew those products would cause catastrophic
5 harm, yet negligently failed to warn of those harms, and misrepresented and/or intentionally
6 concealed the facts about unabated use of those products.
7

8 5.15. Defendants' failures to warn, misrepresentations, and intentional concealments are
9 a proximate cause of heightened fossil fuel consumption, which has directly led to elevated
10 greenhouse gas emissions and, in turn, substantially worsened climate-change effects to the harm
11 and detriment of the Makah Tribe. As a proximate result of Defendants' acts and omissions, the
12 Tribe has incurred, is incurring, and will continue to incur damages to property, public health, and
13 natural resources.
14

15 VI. PRAYER FOR RELIEF

16 **Wherefore, the Makah Tribe prays that the Court:**

17 6.1. Adjudge and decree that Defendants have engaged in the conduct complained of
18 herein.

19 6.2. Order Defendants to abate the nuisance they created, including but not limited to
20 funding an abatement fund to be managed by the Tribe to remediate and adapt its Reservation
21 lands, natural resources, and infrastructure;
22

23 6.3. Award joint and several compensatory damages, in an amount determined at trial
24 for injury sustained by the Tribe as a result of Defendants' tortious conduct;

25 6.4. Award pre-judgment and post-judgment interest, as provided by law;
26

