

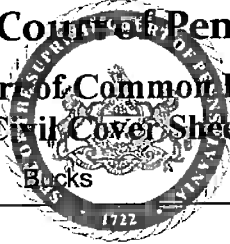
Supreme Court of Pennsylvania

Court of Common Pleas

Civil Cover Sheet

Bucks

County



For Prothonotary Use Only

Docket No:



Case #: 2024-01836-0000 13609220
Main (Public)
Code: 0 Judge: 42
Rcpt: 2024-31-00156 3/25/2024 9:50:22 AM

The information collected on this form is used solely for court administration purposes. This form does not supplement or replace the filing and service of pleadings or other papers as required by law or rules of court.

SECTION A

Commencement of Action:

- Complaint
 Writ of Summons
 Petition
 Transfer from Another Jurisdiction
 Declaration of Taking

Lead Plaintiff's Name:
Bucks County

Lead Defendant's Name:
BP P.L.C.

Are money damages requested? Yes No

Dollar Amount Requested: within arbitration limits
(check one) outside arbitration limits

Is this a *Class Action Suit*? Yes No

Is this an *MDJ Appeal*? Yes No

Name of Plaintiff/Appellant's Attorney: Amy M. Fitzpatrick, Esquire

Check here if you have no attorney (are a Self-Represented [Pro Se] Litigant)

SECTION B

Nature of the Case: Place an "X" to the left of the ONE case category that most accurately describes your **PRIMARY CASE**. If you are making more than one type of claim, check the one that you consider most important.

TORT (do not include Mass Tort)

- Intentional
 Malicious Prosecution
 Motor Vehicle
 Nuisance
 Premises Liability
 Product Liability (does not include mass tort)
 Slander/Libel/ Defamation
 Other:
 Negligence, Trespass, and
 Civil Conspiracy

CONTRACT (do not include Judgments)

- Buyer Plaintiff
 Debt Collection: Credit Card
 Debt Collection: Other

 Employment Dispute:
 Discrimination
 Employment Dispute: Other

 Other:

CIVIL APPEALS

- Administrative Agencies
 Board of Assessment
 Board of Elections
 Dept. of Transportation
 Statutory Appeal: Other

 Zoning Board
 Other:

MASS TORT

- Asbestos
 Tobacco
 Toxic Tort - DES
 Toxic Tort - Implant
 Toxic Waste
 Other:

REAL PROPERTY

- Ejectment
 Eminent Domain/Condemnation
 Ground Rent
 Landlord/Tenant Dispute
 Mortgage Foreclosure: Residential
 Mortgage Foreclosure: Commercial
 Partition
 Quiet Title
 Other:

MISCELLANEOUS

- Common Law/Statutory Arbitration
 Declaratory Judgment
 Mandamus
 Non-Domestic Relations
 Restraining Order
 Quo Warranto
 Replevin
 Other:

PROFESSIONAL LIABILITY

- Dental
 Legal
 Medical
 Other Professional:

IN THE COURT OF COMMON PLEAS
OF BUCKS COUNTY, PENNSYLVANIA

BUCKS COUNTY,

Plaintiff,

v.

BP P.L.C.;
BP AMERICA INC.;
BP PRODUCTS NORTH AMERICA INC.;
CHEVRON CORPORATION;
CHEVRON U.S.A. INC.;
CONOCOPHILLIPS COMPANY;
CONOCOPHILLIPS;
PHILLIPS 66 COMPANY;
PHILLIPS 66;
EXXON MOBIL CORPORATION;
EXXONMOBIL OIL CORPORATION;
SHELL OIL PRODUCTS COMPANY LLC;
SHELL PLC;
SHELL USA, INC.; and
AMERICAN PETROLEUM INSTITUTE,

Defendants.

COMPLAINT IN CIVIL ACTION

Case No. _



Case #: 2024-01836-0000 13609220
Main (Public)
Code: 0 Judge: 42
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NOTICE

NOTICE

You have been sued in court. If you wish to defend against the claims set forth in the following pages, you must take action within twenty (20) days after this complaint and notice are served, by entering a written appearance personally or by attorney and filing in writing with the court your defenses or objections to the claims set forth against you. You are warned that if you fail to do so the case may proceed without you and a judgment may be entered against you by the court without further notice for any money claimed in the complaint or for any other claim or relief requested by the plaintiff. You may lose money or property or other rights important to you.

YOU SHOULD TAKE THIS PAPER TO YOUR LAWYER AT ONCE. IF YOU DO NOT HAVE A LAWYER OR CANNOT AFFORD ONE, GO TO OR TELEPHONE THE OFFICE SET FORTH BELOW. THIS OFFICE CAN PROVIDE YOU WITH INFORMATION ABOUT HIRING A LAWYER AND/OR WITH INFORMATION ABOUT AGENCIES THAT MAY OFFER LEGAL SERVICES TO ELIGIBLE PERSONS AT A REDUCED RATE OR NO FEE.

Bucks County Bar Association
135 East State Street
Doylestown, PA 18901
Phone (215) 348-9413, 1-800-479-8585
www.bucksbar.org

PA BAR ASSOCIATION:
WWW.PABAR.ORG

AVISO

Le han demandado a Usted en la corte. Si Usted quiere defenderse ante las demandas expuestas en las paginas siguientes, Usted tiene veinte (20) dias de plazo a partir de la fecha de la demanda y la notificación. Race falta asentar un comparencia escrita en persona o con un abogado y entregar a la corte en forma escrita sus defensas u objeciones a la demandas en contra de su persona. Sea avisado que si Usted no se defiende, la corte tomara medidas y puede continuar la demanda en contra suya sin previo aviso o notificación. Además la corte puede decidir a favor del demandante y requerir que Usted cumpla con todas las provisiones de esta demanda. Usted puede perder dinero o propiedades u otros derechos personales importantes.

LLEVE ESTA DEMANDA A SU ABOGADO INMEDIATAMENTE. SI NO TIENE ABOGADO O SI NO TIENE EL DINERO SUFICIENTE PARA CONTRATAR UN ABOGADO, DEBE IR PERSONALMENTE O LLAMAR A LA OFICINA CUYA DIRECCION SE ENCUENTRA ABAJO. ESTA OFICINA LE PUEDE DAR INFORMACION SOBRE CONTRATAR UN ABOGADO Y/O INFORMACION SOBRE AGENCIAS QUE PODRIAN OFRECER SERVICIOS LEGALES A PERSONAS CON NECESIDAD A UN PRECIO REDUCIDO O GRATUITO.

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COMPLAINT AND DEMAND FOR JURY TRIAL

Plaintiff Bucks County, Pennsylvania (“Bucks County,” “County,” or “Bucks”) brings this action against Defendants BP P.L.C.; BP AMERICA INC.; BP PRODUCTS NORTH AMERICA INC.; CHEVRON CORPORATION; CHEVRON U.S.A. INC.; CONOCOPHILLIPS COMPANY; CONOCOPHILLIPS; PHILLIPS 66 COMPANY; PHILLIPS 66; EXXON MOBIL CORPORATION; EXXONMOBIL OIL CORPORATION; SHELL OIL PRODUCTS COMPANY LLC; SHELL PLC; SHELL USA, INC.; and AMERICAN PETROLEUM INSTITUTE.

I. INTRODUCTION

1. For decades, the fossil fuel industry has misled consumers and the public about climate change. Since at least the 1950s, its own scientists have consistently concluded that fossil fuels produce carbon dioxide and other greenhouse gas pollution that can have catastrophic consequences for the planet and its people. The industry took these internal scientific findings seriously, investing heavily to protect its own assets and infrastructure from rising seas, stronger storms, and other climate change impacts. Rather than warn consumers and the public, fossil fuel companies and their surrogates mounted a disinformation campaign to discredit the scientific consensus on climate change; create doubt in the minds of consumers, the media, teachers, and the public about the climate change impacts of burning fossil fuels; and delay the energy economy’s transition to a lower-carbon future. This successful climate deception campaign had the purpose and effect of inflating and sustaining the market for fossil fuels, which—in turn—drove up greenhouse gas emissions, accelerated global warming, and brought about devastating climate change impacts to Bucks County.

2. Major members of the fossil fuel industry have known for decades that fossil fuels—their chief products—are the primary cause of climate change and that, if unabated, climate change could result in catastrophic impacts, including droughts, flooding, and severe weather

events that would impose enormous harms on states, cities, and counties such as Bucks County. Despite this knowledge, these corporations and their trade associations have embarked on tobacco-industry-style campaigns to deceive and mislead the public about the damaging nature of their fossil fuel products.

3. Defendants (save for API) (collectively “Fossil Fuel Defendants”) are large companies in the fossil fuel industry, which advertise, promote, and sell “fossil fuel products”. Each Defendant funded, staffed, organized, and otherwise supported efforts to deceive the public and consumers—in and outside of Bucks County—about the role of fossil fuel products in causing the global climate crisis.

4. The rate at which Fossil Fuel Defendants have extracted and sold fossil fuel products has exploded since the Second World War, as have carbon dioxide (“CO₂”) and other emissions from those products. Fossil fuel emissions—especially CO₂—are far and away the dominant driver of global warming.¹ The substantial majority of all anthropogenic greenhouse gas emissions in history have occurred from the 1950s to the present, a period known as the “Great Acceleration.”² About three-quarters of all industrial CO₂ emissions in history have occurred since

¹ See Richard P. Allen et al., *Summary for Policymakers in Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (“IPCC”), at 4-9 (2021), https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf.

² Will Steffen et al., *The Trajectory of the Anthropocene: The Great Acceleration*, 2 THE ANTHROPOCENE REV. 81, 81 (2015).

the 1960s,³ and more than half have occurred since the late 1980s.⁴ The annual rate of CO₂ emissions caused by fossil fuels has increased substantially since 1990.⁵

5. Defendants' awareness of the negative impacts of fossil fuel consumption almost exactly tracks the onset of the Great Acceleration. Defendants have known since at least the 1950s that fossil fuels produce carbon dioxide and other greenhouse gas ("GHG") pollution that would warm the planet and change our climate. Defendants' own scientists knew as early as the 1950s that these climate impacts would be catastrophic, and that there was only a narrow window of time in which action could be taken before the consequences became catastrophic.

6. Rather than warn of these tremendous harms, however, Defendants mounted a disinformation campaign beginning as early as the 1970s to discredit the burgeoning scientific consensus on climate change; deny their own knowledge of climate change-related threats; create doubt in the minds of consumers, the media, teachers, and the public about the reality and consequences of burning fossil fuels; and delay the necessary transition to a lower-carbon future.

7. Defendants have further deceived customers and the public by misrepresenting the climate impacts of their products sold in the County. In a bid to reassure consumers that purchasing these products is good for the planet, Defendants advertise them as "cleaner," "emissions-reducing," and the like, while failing to disclose their harmful effects on the climate. This strategy comes straight out of the advertising playbook of Big Tobacco, which deceptively promoted "low tar" and "light" cigarettes as healthier smoking options, when they knew that any use of cigarettes

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

⁴ *Id.*

⁵ *Global Carbon Budget 2021*, GLOBAL CARBON PROJECT (2021), https://www.globalcarbonproject.org/global/images/carbonbudget/Infographic_Emissions2021.pdf.

was harmful. Defendants also falsely present themselves as corporate leaders in the fight against climate change, claiming to invest substantially in low-emission technologies and zero-emission energy sources, while their business continues to be overwhelmingly focused on fossil fuel production and sales.

8. Defendant API is the oil and gas industry's largest trade association. API, along with Fossil Fuel Defendants, have known for decades about the relationship between fossil fuel products and the catastrophic impacts of climate change. And like other Defendants, API has spread its own deceptive advertising. Additionally, API has long served as a hub both for Defendants to share their knowledge about the link between fossil fuel products and climate change impacts, and for Defendants' climate deception campaign. Indeed, much of Defendants' climate deception campaign was planned, coordinated, and supported by API.

9. For decades, Defendants misrepresented and concealed the hazards of fossil fuel products to deceive consumers and the public about the consequences of everyday use of fossil fuel products. Defendants' decades-long climate deception campaign as described herein, and aggressive promotion of the use of fossil fuel products while knowing the dangers associated with them, had the purpose and effect of unduly and substantially inflating and sustaining the market for fossil fuels. Defendants' tortious conduct, both individually and collectively, drove fossil fuel consumption and delayed the transition to a lower-carbon future. This caused an enormous, foreseeable, and avoidable increase in anthropogenic GHG emissions and accelerated global warming, bringing devastating consequences to the County and its people.

10. While Defendants have promoted and profited from their deceptive conduct, the County and its residents have spent, and will continue to spend, substantial sums to recover from the effects of climate change. The climate change impacts that the County has faced and will

continue to face—including more frequent and intense storms, flooding, storm surge, rising waters in tidal rivers, saltwater intrusion, droughts, and extreme heat events—are felt throughout the County, and disproportionately in low-income communities and communities that have historically experienced racial, social, health, and economic inequities. These effects of climate change require large investments to protect the County’s people, infrastructure, environment, and natural areas.

11. Defendants’ misconduct has resulted in tremendous harm to people, property, natural resources, and the environment in the County. Bucks County residents and their families, communities, and small businesses should not have to bear the costs of climate change and destabilization alone. The companies that have profited from the deception campaign designed to drive profits at the expense of Bucks County residents must be made to mitigate the harms they have brought upon the County.

12. Bucks County brings this action on its own behalf and in its capacity as a trustee of the public natural resources of the Commonwealth of Pennsylvania to hold those companies accountable for the damage they have caused by their decades-long climate deception campaign under the common law claims of strict products liability, negligent products liability, negligence, public nuisance, private nuisance, trespass, and civil conspiracy.⁶

⁶ While Defendants’ tortious conduct centered on a campaign of misinformation and deception, this lawsuit does not bring a cause of action for fraud or misrepresentation. Plaintiff further disclaims injuries arising on federal property and those arising from Defendants’ provision of non-commercial, specialized fossil fuel products to the federal government for military and national defense purposes. Plaintiff seeks no recovery or relief attributable to these injuries.

II. PARTIES

13. Plaintiff Bucks County is a municipal corporation organized and existing under the laws of the Commonwealth of Pennsylvania and located at 55 East Court Street, Doylestown, Pennsylvania 18901.

14. Bucks County is located near multiple major metropolitan areas and is considered a tourist destination.

15. Bucks County's landscape is described as bucolic, with serene rolling hills, preserved and working farms, historic towns, covered bridges, parks and natural areas.

16. Bucks County is a trustee of the public natural resources of the Commonwealth, which are held in trust for the benefit of all the people, and, as a trustee of these resources, Bucks County is charged with conserving and maintaining them for the benefit of all people.⁷

17. Defendants include some of the largest oil and gas companies in the world, and a national oil and gas industry trade association. The fossil fuels produced by the defendant companies (and promoted by the defendant trade association) are individually and collectively responsible for the emission of billions of tons of greenhouse gases and attendant harms to the County.

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

⁷ Pa. Const. art. I, § 27, commonly referred to as the Environmental Rights Amendment ("ERA").

19. **BP Entities: BP p.l.c.; BP America Inc.; and BP Products North America Inc.**

a. Defendant **BP p.l.c.** is a multinational, vertically integrated energy and petrochemical public limited company registered in England and Wales, with its principal place of business in London, England. BP p.l.c. consists of three main operating segments: (1) exploration and production, (2) refining and marketing, and (3) gas power and renewables. BP p.l.c. is the ultimate parent company of numerous subsidiaries, including Atlantic Richfield Company, referred to collectively herein as the “BP Group,” which explore for and extract oil and gas worldwide; refine oil into fossil fuel products such as gasoline; and market and sell oil, fuel, other refined petroleum products and natural gas worldwide. BP p.l.c.’s subsidiaries explore for oil and natural gas under a wide range of licensing and other contractual agreements. BP p.l.c. was formerly known as, did or does business as, and/or is the successor in liability to British Petroleum Company, British Petroleum Company p.l.c., BP Amoco p.l.c., Amoco Corporation, and Atlantic Richfield Company.

b. BP p.l.c. controls and has controlled company-wide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. BP p.l.c. is the ultimate decision-maker with respect to fundamental decisions about the BP Group’s core business, *e.g.*, the level of fossil fuel production companywide, including production among BP p.l.c.’s subsidiaries. BP p.l.c.’s 2022 Annual Report summarizes the company’s “Strategic progress,” including on offshore projects in the Gulf of Mexico, Brazil, and Angola, as well as acquisitions and sales of various oil and gas operations. In 2016 to 2017, BP p.l.c. reported that it brought online 13 major exploration and production projects, contributing to a 12 percent increase in the BP Group’s overall fossil fuel product production. These projects were carried out by BP p.l.c.’s subsidiaries.

c. BP p.l.c. controls and has controlled company-wide decisions, including those of its subsidiaries, related to marketing, advertising, GHG emissions, and climate change resulting from the company's fossil fuel products, as well as communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and humans. BP p.l.c. makes fossil fuel production decisions for the entire BP Group based on factors including climate change. BP p.l.c.'s Board of Directors is the highest decision-making body within the company, with direct responsibility for the BP Group's climate change policy. BP p.l.c.'s chief executive is responsible for maintaining the BP Group's system of internal control that governs the BP Group's business conduct. BP p.l.c.'s senior leadership directly oversees a "carbon steering group," which manages climate change-related matters and consists of two committees—both overseen directly by the Board of Directors—that focus on climate change-related investments.

d. BP p.l.c. is registered to do business in Pennsylvania through its wholly-owned subsidiaries as BP Wind Energy North America Inc, AE Power Services LLC, BP America Chemicals Company, BP America Inc, and BP America Production Company.

e. Defendant **BP America Inc.** is a wholly owned subsidiary of BP p.l.c. that acts on BP p.l.c.'s behalf and is subject to BP p.l.c.'s control. BP America Inc. is a vertically integrated energy and petrochemical company incorporated in the State of Delaware, with its headquarters and principal place of business in Houston, Texas. BP America Inc. consists of numerous divisions and affiliates in all aspects of fossil fuel production, including exploration for and production of crude oil and natural gas; manufacture of petroleum products; and transportation, marketing, and sale of crude oil, natural gas, and petroleum products. BP America Inc. was formerly known as, did or does business as, is or was affiliated with, and/or is the

successor in liability to Amoco Oil Company; Amoco Production Company; ARCO Products Company; BP Exploration & Oil, Inc.; BP Products North America Inc.; BP Amoco Corporation; BP Oil, Inc.; BP Oil Company; Sohio Oil Company; Standard Oil of Ohio (SOHIO); Standard Oil (Indiana); and Atlantic Richfield Company (a Pennsylvania Corporation) and its division, the Arco Chemical Company.

f. Defendants BP p.l.c., BP America Inc., and BP Products North America Inc., together with their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as “BP.”

g. The County’s claims against BP arise out of and are related to the acts and omissions of BP in Bucks County and BP’s actions elsewhere that caused and will cause injuries in the County.

h. BP has purposefully directed its tortious conduct toward Bucks County by distributing, marketing, advertising, promoting, and supplying its fossil fuel products in the County, with knowledge that the intended use of those products for combustion has caused and will continue to cause climate change-related harms in the County, including without limitation injuries to the County’s property, infrastructure, and natural resources. BP’s statements in Bucks County, in Pennsylvania, and elsewhere made in furtherance of its campaign of deception about and denial of climate change, and BP’s affirmative promotion of its fossil fuel products as safe despite knowledge of how the intended use of those products would cause climate change-related harms, were designed to conceal and mislead consumers and the public, including the County and its residents, about the serious adverse consequences that would result from continued use of BP’s products. That conduct was purposefully directed to reach and influence the County and its

residents to continue the unabated use of BP's fossil fuel products in Bucks County, thereby resulting in the County's injuries.

i. Over the last several decades and continuing to the present day, BP spent millions of dollars on radio, television, online, social media, and outdoor advertisements in the Bucks County and Philadelphia-suburb market related to its fossil fuel products. Since at least 1988 and continuing to the present day, BP has advertised in print publications circulated widely to Bucks County consumers, including but not limited to the following: *The Philadelphia Inquirer*; *The Atlantic*; *Life*; *Newsweek*; *The New York Times*; *Sports Illustrated*, *Time*; *The Wall Street Journal*; and *The Washington Post*. As further detailed herein, these include advertisements containing false or misleading statements, misrepresentations, and/or material omissions obfuscating the connection between the production and use of BP's fossil fuel products and climate change, and/or misrepresenting BP's products and BP itself as environmentally friendly.

j. Significant quantities of BP's fossil fuel products are or have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Bucks County and in Pennsylvania, from which activities BP derives and has derived substantial revenue.

k. BP conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas station locations throughout Bucks County and Pennsylvania, at which locations it promotes, advertises, and sells its fossil fuel products. Its "retail presence includes more than 180 retail locations" in Pennsylvania.⁸

⁸ *Pennsylvania: bp's economic investment*, BP, (updated Mar. 2024) https://www.bp.com/content/dam/bp/country-sites/en_us/united-states/home/documents/where-we-operate/states/bp%20in%20Pennsylvania.pdf.

l. BP also markets and sells other fossil fuel products, including engine lubricant and motor oils, to Bucks County and Pennsylvania consumers under its Castrol brand name. “In Warminster, [Bucks County], Pennsylvania, 45 employees work at one of Castrol’s main manufacturing sites[.]”⁹

m. BP markets and advertises its fossil fuel products in Bucks County to its residents by maintaining an interactive website available to prospective customers by which it directs the County’s residents to its nearby retail service stations and/or lubricant distributors.¹⁰

n. Further, BP promotes its products in Bucks County and Pennsylvania by regularly updating and actively promoting its “BPme Rewards” app and rewards program, which encourages customers to buy fuel at its stations in Bucks County and Pennsylvania in exchange for rewards on fuel purchase.

o. By the company’s own description, BP claims to support over 1,700 jobs across Pennsylvania, including at least 880 BP employees, and has invested \$87 million through vendors in the State.¹¹ Additionally, BP purports to “provide[] renewable energy options for hundreds of communities in the Commonwealth along with servicing more traditional power plants and utility companies.”¹²

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *BP Pennsylvania, BP, https://onemap-central.bpglobal.com/portal/apps/experiencebuilder/experience/?id=c7fb719bdd194fc0b12cd40ceddc4c8a&page=page_90* (last visited Mar. 19, 2024).

20. **Chevron Entities: Chevron Corporation and Chevron U.S.A. Inc.**

a. Defendant **Chevron Corporation** is a multinational, vertically integrated energy and chemicals company incorporated in Delaware, with its global headquarters and principal place of business in San Ramon, California.

b. Chevron Corporation operates through a web of United States and international subsidiaries at all levels of the fossil fuel supply chain. Chevron Corporation and its subsidiaries' operations include, but are not limited to, exploration, development, production, storage, transportation, and marketing of crude oil and natural gas; refining crude oil into petroleum products and marketing those products; and manufacturing and marketing commodity petrochemicals, plastics for industrial uses, and fuel and lubricant additives.

c. Chevron Corporation controls and has controlled company-wide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Chevron Corporation determines whether and to what extent its corporate holdings market, produce, and/or distribute fossil fuel products.

d. Chevron Corporation controls and has controlled company-wide decisions, including those of its subsidiaries, related to marketing, advertising, GHG emissions and climate change resulting from the company's fossil fuel products, and communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and humans. Overall accountability for climate change within Chevron Corporation lies with Chevron Corporation's Board of Directors and Executive Committee.

e. Defendant **Chevron U.S.A. Inc.** is a Pennsylvania corporation with its principal place of business located in San Ramon, California. Chevron U.S.A. Inc. is a wholly owned subsidiary of Chevron Corporation that acts on Chevron Corporation's behalf and is subject

to Chevron Corporation's control. Chevron U.S.A. Inc. was formerly known as, did or does business as, and/or is the successor in liability to Gulf Oil Corporation, Gulf Oil Corporation of Pennsylvania, Chevron Products Company, and Chevron Chemical Company.

f. Defendants Chevron Corporation and Chevron U.S.A. Inc., together with their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as "Chevron."

g. The County's claims against Chevron arise out of and are related to the acts and omissions of Chevron in Bucks County and elsewhere that caused and will cause injuries in the County.

h. Chevron has purposefully directed its tortious conduct toward Bucks County by distributing, marketing, advertising, promoting, and supplying its fossil fuel products in Bucks County, with knowledge that the intended use of those products for combustion has caused and will continue to cause climate change-related harms in Bucks County, including without limitation injuries to the County's property, infrastructure, and natural resources. Chevron's statements in Bucks County, in Pennsylvania, and elsewhere made in furtherance of its campaign of deception about and denial of climate change, and Chevron's affirmative promotion of its fossil fuel products as safe with knowledge of how the intended use of those products would cause climate change-related harms, were designed to conceal and mislead consumers and the public, including the County and its residents, about the serious adverse consequences that would result from continued use of Chevron's products. That conduct was purposefully directed to reach and influence the County and its residents to continue the unabated use of Chevron's fossil fuel products in Bucks County, thereby resulting in the County's injuries.

i. Over the last several decades and continuing to the present day, Chevron spent millions of dollars on radio, television, online, social media, and outdoor advertisements in the Bucks County market related to its fossil fuel products. Since at least 1970, and continuing to the present day, Chevron has advertised in print publications circulated widely to Bucks County consumers, including but not limited to the following: *The Philadelphia Inquirer*; *The Atlantic*; *Life*; *National Geographic*; *The New York Times*; *Sports Illustrated*; *Time Magazine*; *The Wall Street Journal*; and *The Washington Post*. As further detailed herein, these include advertisements containing false or misleading statements, misrepresentations, and/or material omissions obfuscating the connection between the production and use of Chevron's fossil fuel products and climate change, and/or misrepresenting Chevron's products or Chevron itself as environmentally friendly.

j. Significant quantities of Chevron's fossil fuel products are or have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Bucks County, from which activities Chevron derives and has derived substantial revenue.

k. Chevron conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas station locations, at which locations it promotes, advertises, and sells its fossil fuel products under its various brand names, including Chevron, Texaco, and other brand names.

l. Chevron also markets and sells other fossil fuel products, including engine lubricant and motor oils, to Bucks County and Pennsylvania consumers under its Starplex/Delo, IsoClean, Techron, and Havoline brand names. Chevron markets and advertises its fossil fuel products in Bucks County to its residents by maintaining an interactive website available to prospective customers by which it directs the County's residents to its nearby retail service stations

and/or lubricant distributors.¹³ Further, Chevron promotes its products in Bucks County and Pennsylvania by regularly updating and actively promoting its “Chevron Texaco Rewards” app and rewards program, which encourages customers to buy fuel at its stations in exchange for rewards on fuel purchases.

21. **ConocoPhillips Entities: ConocoPhillips; ConocoPhillips Company; Phillips 66 Company; and Phillips 66**

a. Defendant **ConocoPhillips** is a multinational energy company incorporated in Delaware, with its principal place of business in Houston, Texas. ConocoPhillips consists of numerous divisions, subsidiaries, and affiliates that execute ConocoPhillips’s fundamental decisions related to all aspects of fossil fuel production, including exploration, extraction, production, manufacture, transport, and marketing.

b. ConocoPhillips controls and has controlled company-wide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. ConocoPhillips determines whether and to what extent its corporate holdings market, produce, and/or distribute fossil fuel products. ConocoPhillips’s most recent annual report to the Securities and Exchange Commission (“SEC”) subsumes the operations of ConocoPhillips’s subsidiaries. In ConocoPhillips’s Form 10-K filed with the SEC for Fiscal Year 2022, the company represents that its value—for which ConocoPhillips maintains ultimate responsibility—is a function of its decisions directing subsidiaries to develop crude oil, bitumen, natural gas, and natural gas liquids from ConocoPhillips’s reserves into fossil fuel products and to explore for and replace those reserves with more fossil fuels: “Unless we successfully develop resources, the scope of our business will decline, resulting in an adverse impact to our business. . . . If we are not successful

¹³ *Where to Buy*, CHEVRON LUBRICANTS, https://www.chevronlubricants.com/en_us/home/where-to-buy/find-a-retailer.html (last visited Mar. 13, 2024).

in replacing the resources we produce with good prospects for future organic development or through acquisitions, our business will decline.”¹⁴

c. ConocoPhillips optimizes the ConocoPhillips group’s oil and gas portfolio to fit ConocoPhillips’s strategic plan. For example, ConocoPhillips’ 10-K in 2022 summarizes the “continued development of onshore assets” in the United States and new exploration activities in Alaska, Canada, the North Sea, and elsewhere.¹⁵ Similarly, in November 2016, ConocoPhillips announced a plan to generate five to eight billion dollars of proceeds over two years by optimizing its business portfolio, including its fossil fuel product business, to focus on low cost-of-supply fossil fuel production projects that strategically fit its development plans.

d. ConocoPhillips controls and has controlled company-wide decisions, including those of its subsidiaries, related to marketing, advertising, GHG emissions and climate change resulting from the company’s fossil fuel products, and communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and humans. For instance, ConocoPhillips’s Board of Directors has the highest level of direct responsibility for climate change policy within the company. ConocoPhillips has developed and purportedly implements a corporate Climate Change Action Plan to govern climate change decision-making across all entities in the ConocoPhillips group.

e. Defendant **ConocoPhillips Company** is a wholly-owned subsidiary of ConocoPhillips that acts on ConocoPhillips’ behalf and is subject to ConocoPhillips’ control. ConocoPhillips Company is incorporated in Delaware, with its principal place of business in

¹⁴ ConocoPhillips, Annual Report (Form 10-K) (Feb. 16, 2023), <https://static.conocophillips.com/files/resources/conocophillips-2022-annual-report.pdf>.

¹⁵ *Id.*

Houston, Texas. ConocoPhillips Company was formerly known as, did or does business as, is or was affiliated with, and/or is the successor in liability to Phillips Petroleum Company.

f. Defendant **Phillips 66 Company** is a wholly-owned subsidiary of Phillips 66 that acts on Phillips 66's behalf and is subject to Phillips 66's control. Phillips 66 Company is incorporated in Delaware, with its principal place of business in Houston, Texas. Phillips 66 Company had been registered to do business since 1964 under a different name, Phillips Chemical Company, which was a wholly-owned subsidiary of the Phillips Petroleum Company. Phillips Chemical Company changed its name to Phillips 66 Company in 1985, and that iteration of Phillips 66 Company was terminated in 1991. Phillips 66 Company was formerly known as, did or does business as, is or was affiliated with, and/or is the successor in liability to Phillips Petroleum Company; Phillips Chemical Company; Conoco, Inc.; Tosco Corporation; and Tosco Refining Co.

g. Defendant **Phillips 66** is a multinational energy and petrochemical company incorporated in Delaware, with its principal place of business in Houston, Texas. It encompasses downstream fossil fuel processing, refining, transport, and marketing segments that were formerly owned and/or controlled by ConocoPhillips.

h. Defendants ConocoPhillips, ConocoPhillips Company, Phillips 66, and Phillips 66 Company, as well as their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as "ConocoPhillips."

i. The County's claims against ConocoPhillips arise out of and are related to the acts and omissions of ConocoPhillips in Bucks County and elsewhere that caused and will cause injuries in Bucks County.

j. ConocoPhillips has purposefully directed its tortious conduct toward Bucks County by distributing, marketing, advertising, promoting, and supplying its fossil fuel products

in Bucks County, with knowledge that the intended use of those products for combustion has caused and will continue to cause climate change-related harms in Bucks County, including without limitation injuries to the County's property, infrastructure, and natural resources. ConocoPhillips's statements in Bucks County, in Pennsylvania, and elsewhere made in furtherance of its campaign of deception about and denial of climate change, and ConocoPhillips's affirmative promotion of its fossil fuel products as safe with knowledge of how the intended use of those products would cause climate change-related harms, were designed to conceal and mislead consumers and the public, including the County and its residents, about the serious adverse consequences that would result from continued use of ConocoPhillips's products. That conduct was purposefully directed to reach and influence the County and its residents to continue the unabated use of ConocoPhillips's fossil fuel products in Bucks County, thereby resulting in the County's injuries.

k. Over the last several decades and continuing to the present day, ConocoPhillips spent millions of dollars on radio, television, online, social media, and outdoor advertisements in the Bucks County market related to its fossil fuel products. Since at least 1970, and continuing to the present day, ConocoPhillips has advertised in print publications circulated widely to Bucks County consumers, including but not limited to the following: *The Philadelphia Inquirer*; *The Atlantic*; *Life*; *National Geographic*; *Newsweek*; *The New York Times*; *People*; *Sports Illustrated*; *Time Magazine*; *The Wall Street Journal*; and *The Washington Post*. As further detailed herein, these include advertisements containing false or misleading statements, misrepresentations, and/or material omissions obfuscating the connection between the production and use of ConocoPhillips's fossil fuel products and climate change, and/or misrepresenting ConocoPhillips's products or ConocoPhillips itself as environmentally friendly.

l. Significant quantities of ConocoPhillips' fossil fuel products are or have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Bucks County and in Pennsylvania, from which activities ConocoPhillips derives and has derived substantial revenue.

m. ConocoPhillips conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas station locations throughout Bucks County and Pennsylvania, at which locations it promotes, advertises, and sells its fossil fuel products under its various brand names, including Conoco, Phillips 66, and other brands. There are over 25 such gas stations in Pennsylvania, including in and around Bucks County.

n. ConocoPhillips also markets and sells other fossil fuel products, including engine lubricant and motor oils, to Bucks County and Pennsylvania consumers under its Phillips 66, Kendall, and Red Line brand names.

o. ConocoPhillips markets and advertises its fossil fuel products in Bucks County to its residents by maintaining interactive websites available to prospective customers by which it directs the County's residents to its nearby retail service stations and/or lubricant distributors.¹⁶ Further, ConocoPhillips promotes its products in Bucks County and Pennsylvania by regularly updating and actively promoting its "KickBack Rewards" and "Phillips 66 Credit Card Rewards Program," which encourages customers to buy fuel at its stations in Bucks County and Pennsylvania in exchange for rewards on fuel purchases.

¹⁶ *Station Finder*, CONOCO, <https://www.conoco.com/station-finder/> (last visited Mar. 13, 2024); *Station Finder*, PHILLIPS 66, <https://www.phillips66gas.com/station-finder/> (last visited Mar. 13, 2024); *Find a Distributor*, PHILLIPS 66, <https://phillips66lubricants.com/find-distributor/> (last visited Mar. 13, 2024).

p. ConocoPhillips Company and ConocoPhillips Pipe Line Company are registered to do business in Pennsylvania. Further, ConocoPhillips formerly operated the Trainer oil refinery in Pennsylvania.

22. **Exxon Entities: Exxon Mobil Corporation and ExxonMobil Oil Corporation**

a. Defendant **Exxon Mobil Corporation** is a New Jersey corporation headquartered in Irving, Texas. Exxon Mobil Corporation is a multinational, vertically integrated energy and chemical company and one of the largest publicly traded international oil and gas companies in the world. Exxon Mobil Corporation was formerly known as, did or does business as, is or was affiliated with, and/or is the successor in liability to Exxon Corporation; ExxonMobil Refining and Supply Company; Exxon Chemical U.S.A.; ExxonMobil Chemical Corporation; ExxonMobil Chemical U.S.A.; ExxonMobil Refining & Supply Corporation; Exxon Company, U.S.A.; XTO Energy, Standard Oil Company of New Jersey; and Mobil Corporation.

b. Exxon Mobil Corporation controls and has controlled company-wide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Exxon Mobil Corporation's 2023 Form 10-K filed with the SEC represents that its success, including its "ability to mitigate risk and provide attractive returns to shareholders, depends on [its] ability to successfully manage [its] overall portfolio, including diversification among types and locations of [its] projects, products produced, and strategies to acquire or divest assets."¹⁷ Exxon Mobil Corporation determines whether and to what extent its subsidiaries market, produce, and/or distribute fossil fuel products. For example, on October 11, 2023, Exxon Mobil

¹⁷ Exxon Mobil Corp., Annual Report Form (10-K) (Feb. 28, 2024), <https://investor.exxonmobil.com/sec-filings/annual-reports> (last visited Mar. 15, 2024).

Corporation announced its acquisition of Pioneer Natural Resources in a press release that referred to the corporate family generally as “ExxonMobil.”¹⁸

c. Exxon Mobil Corporation controls and has controlled company-wide decisions, including those of its subsidiaries, related to marketing, advertising, GHG emissions and climate change resulting from the company’s fossil fuel products, and communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and humans. Exxon Mobil Corporation’s Board holds the highest level of direct responsibility for climate change policy within the company. Exxon Mobil Corporation’s Chairman of the Board and Chief Executive Officer, its President, and the other members of its Management Committee have been actively engaged in discussions relating to GHG emissions and the risks of climate change on an ongoing basis. Exxon Mobil Corporation requires its subsidiaries, when seeking funding for capital investments, to provide estimates of project costs related to GHG emissions.

d. Defendant **ExxonMobil Oil Corporation** is a wholly-owned subsidiary of Exxon Mobil Corporation, acts on Exxon Mobil Corporation’s behalf, and is subject to Exxon Mobil Corporation’s control. ExxonMobil Oil Corporation is a New York corporation with its headquarters in Irving, Texas. ExxonMobil Oil Corporation was formerly known as, did or does business as, is or was affiliated with, and/or is the successor in liability to Mobil Oil Corporation.

e. Defendants Exxon Mobil Corporation, ExxonMobil Oil Corporation, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as “Exxon.”

¹⁸ *ExxonMobil announces merger with Pioneer Natural Resources in an all-stock transaction*, EXXONMOBIL (Oct. 11, 2023), https://corporate.exxonmobil.com/news/news-releases/2023/1011_exxonmobil-announces-merger-with-pioneer-natural-resources-in-an-all-stock-transaction.

f. Exxon consists of numerous divisions and affiliates in all areas of the fossil fuel industry, including exploration for and production of crude oil and natural gas; manufacture of petroleum products; and transportation, promotion, marketing, and sale of crude oil, natural gas, and petroleum products. Exxon is also a major manufacturer and marketer of commodity petrochemical products.

g. In Pennsylvania, Exxon and its subsidiaries operate as leading oil and natural gas producers, holding 534,000 acres in 15 Pennsylvania counties with offices in Montoursville, Kittanning, and Delmont and the Appalachia District Headquarters in Warrendale. Exxon is registered to do business in Pennsylvania as Exxon Enterprises Corporation, Exxon Mobil Corporation, and Exxon Mobil Research & Engineering. Further, Exxon and its predecessor Standard Oil Company also owned and operated extensive refining and sales operations in Pennsylvania since the early 20th century.

h. Exxon has purposefully directed its tortious conduct toward Bucks County by distributing, marketing, advertising, promoting, and supplying its fossil fuel products in Bucks County, with knowledge that the intended use of those products for combustion has caused and will continue to cause climate change-related harms in Bucks County, including without limitation injuries to the County's property, infrastructure, and natural resources. Exxon's statements in Bucks County, in Pennsylvania, and elsewhere made in furtherance of its campaign of deception about and denial of climate change, and Exxon's affirmative promotion of its fossil fuel products as safe with knowledge of how the intended use of those products would cause climate change-related harms, were designed to conceal and mislead consumers and the public, including the County and its residents, about the serious adverse consequences that would result from continued use of Exxon's products. That conduct was purposefully directed to reach and influence the County

and its residents to continue the unabated use of Exxon's fossil fuel products in Bucks County, thereby resulting in the County's injuries.

i. Over the past several decades and continuing to the present day, Exxon spent millions of dollars on radio, television, online, social media, and outdoor advertisements in the Bucks County market related to its fossil fuel products. Since at least 1972, and continuing to the present day, Exxon has advertised its fossil fuel products in print publications circulated widely to Bucks County consumers, including but not limited to: *The Philadelphia Inquirer*; *The Atlantic*; *Ebony*; *Life*; *National Geographic*; *The New York Times*; *People*; *Sports Illustrated*; *Time*; *The Wall Street Journal*; and *The Washington Post*. As further detailed herein, these include advertisements containing false or misleading statements, misrepresentations, and/or material omissions designed to hide the connection between the production and use of Exxon's fossil fuel products and climate change, and/or misrepresenting Exxon's products or Exxon itself as environmentally friendly.

j. Significant quantities of Exxon's fossil fuel products are or have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Bucks County and in Pennsylvania, from which activities Exxon derives and has derived substantial revenue.

k. Exxon conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas station locations throughout Bucks County and Pennsylvania, at which locations it promotes, advertises, and sells its fossil fuel products. There are over 200 Exxon- and Mobil-branded gas stations throughout Pennsylvania, including in and around Bucks County.

l. Exxon also markets and sells other fossil fuel products, including engine lubricants and motor oils, to Bucks County and Pennsylvania consumers under its Mobil 1 brand name.

m. Exxon markets and advertises its fossil fuel products in Bucks County to its residents by maintaining an interactive website available to prospective customers by which it directs the County's residents to its nearby retail service stations and/or lubricant distributors.¹⁹ Further, Exxon promotes its products in Bucks County and Pennsylvania by regularly updating and actively promoting its "Exxon Mobil Rewards+" app and rewards program, which encourages customers to buy fuel at its stations in Bucks County and Pennsylvania in exchange for rewards on fuel purchases.

23. **Shell Entities: Shell Oil Products Company LLC; Shell plc; and Shell USA, Inc.**

a. Defendant **Shell Oil Products Company LLC** is a wholly-owned subsidiary of Shell USA, Inc., that acts on Shell USA, Inc.'s behalf and is subject to Shell USA, Inc.'s control. Shell Oil Products Company LLC is incorporated in Delaware, with its principal place of business in Houston, Texas. Shell Oil Products Company LLC was formerly known as, did or does business as, is or was affiliated with, and/or is the successor in liability to Shell Oil Products Company, which was a Delaware corporation that converted to a limited liability company in 2001.

b. Defendant **Shell plc** (formerly Royal Dutch Shell PLC) is a vertically integrated multinational energy and petrochemical company. Shell plc is incorporated in England

¹⁹ *Find a Gas Station Near Me*, EXXON MOBIL, <https://www.exxon.com/en/find-station> (last visited Mar. 13, 2024); *Stores Nearby Selling Mobil 1 and Mobil Motor Oil*, MOBIL, <https://www.mobil.com/en/lubricants/where-to-buy/motor-oil-product-locator> (last visited Mar. 13, 2024).

and Wales, with its headquarters and principal place of business in The Hague, Netherlands. Shell plc is the ultimate parent company of numerous divisions, subsidiaries, and affiliates, referred to collectively as the “Shell Group,” that engage in all aspects of fossil fuel production, including exploration, development, extraction, manufacturing and energy production, transport, trading, marketing, and sales.

c. Shell plc controls and has controlled company-wide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Shell plc’s Board of Directors determines whether and to what extent Shell subsidiary holdings around the globe produce Shell-branded fossil fuel products.

d. Shell plc controls and has controlled company-wide decisions, including those of its subsidiaries, related to marketing, advertising, GHG emissions and climate change resulting from the company’s fossil fuel products, and communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and humans. Overall accountability for climate change within the Shell Group lies with Shell plc’s Chief Executive Officer and Executive Committee. For instance, at least as early as 1988, Shell plc, through its predecessors and subsidiaries, was researching company-wide carbon dioxide (“CO₂”) emissions and concluded that the Shell Group accounted for four percent of the CO₂ emitted worldwide from combustion, and that climatic changes could compel the Shell Group, as controlled by Shell plc, to examine the possibilities of expanding and contracting its business accordingly.

e. Defendant **Shell USA, Inc.** (formerly Shell Oil Company) is a wholly-owned subsidiary of Shell plc that acts on Shell plc’s behalf and is subject to Shell plc’s control. Shell USA, Inc. is incorporated in Delaware, with its principal place of business in Houston, Texas.

Shell USA, Inc. has been registered to do business in California since 1949. Shell USA, Inc. was formerly known as, did or does business as, is or was affiliated with, and/or is the successor in liability to Shell Oil Company; Shell Oil; Deer Park Refining LP; Shell Oil Products US; Shell Chemical LP; Shell Trading (US) Company; Shell Energy Resources Company; Shell Energy Services Company, L.L.C.; The Pennzoil Company; and Pennzoil-Quaker State Company.

f. Defendants Shell plc, Shell USA, Inc., Shell Oil Products Company LLC, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions are collectively referred to herein as “Shell.”

g. Shell has purposefully directed its tortious conduct toward Bucks County by distributing, marketing, advertising, promoting, and supplying its fossil fuel products in Bucks County, with knowledge that the intended use of those products for combustion has caused and will continue to cause climate change-related harms in Bucks County, including without limitation injuries to the County’s property, infrastructure, and natural resources. Shell’s statements in Bucks County, in Pennsylvania, and elsewhere made in furtherance of its campaign of deception about and denial of climate change, and Shell’s affirmative promotion of its fossil fuel products as safe with knowledge of how the intended use of those products would cause climate change-related harms, were designed to conceal these harms and mislead consumers and the public, including the County and its residents, about the serious adverse consequences that would result from continued use of Shell’s products. That conduct was purposefully directed to reach and influence the County and its residents to continue the unabated use of Shell’s fossil fuel products in Bucks County, thereby resulting in the County’s injuries.

h. Over the last several decades and continuing to the present day, Shell spent millions of dollars on radio, television, online, social media, and outdoor advertisements in the

Bucks County market related to its fossil fuel products. Since at least 1970, and continuing to the present day, Shell has advertised its fossil fuel products in print publications circulated widely to Bucks County consumers, including but not limited to the following: *The Philadelphia Inquirer*; *The Atlantic*; *Ebony*; *The Economist*; *Life*; *National Geographic*; *Newsweek*; *The New York Times*; *Sports Illustrated*; *Time Magazine*; *The Wall Street Journal*; and *The Washington Post*. As further detailed herein, these include advertisements containing false or misleading statements, misrepresentations, and/or material omissions obfuscating the connection between the production and use of Shell's fossil fuel products and climate change, and/or misrepresenting Shell's products or Shell itself as environmentally friendly.

i. Significant quantities of Shell's fossil fuel products are or have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in Bucks County and in Pennsylvania, from which activities Shell derives and has derived substantial revenue.

j. Shell conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas station locations throughout Bucks County and Pennsylvania, at which locations it promotes, advertises, and sells its fossil fuel products. There are over 100 Shell-branded gas stations throughout Pennsylvania, including in and around Bucks County. Shell also operates two distribution centers in Pennsylvania, owns and operates half a million acres of shale gas leases within Pennsylvania, and operates the Monaca Polymers facility in Potter Township, Beaver County, Pennsylvania.

k. In 2022, Shell paid \$21,547,640 in Pennsylvania taxes and employed 447 people in the state.

l. Shell also markets and sells other fossil fuel products, including engine lubricants and motor oils, to Bucks County and Pennsylvania customers under its Penzoil brand name.

m. Shell markets and advertises its fossil fuel products in Bucks County to its residents by maintaining an interactive website available to prospective customers by which it directs the County's residents to its nearby retail service stations and/or lubricant distributors.²⁰ Further, Shell promotes its products in Bucks County and Pennsylvania by regularly updating and actively promoting its "Fuel Rewards Program," which encourages customers to buy fuel at its stations in Bucks County and Pennsylvania in exchange for rewards on fuel purchases. Shell offers a proprietary credit card known as the "Shell Fuel Rewards Card," which allows consumers in Bucks County and in Pennsylvania to pay for gasoline and other products at Shell-branded service stations, and which encourages consumers to use Shell-branded gas stations by offering various rewards, including discounts on gasoline purchases. Shell further maintains a smartphone application known as the "Shell US App" that offers Bucks County and Pennsylvania consumers a cashless payment method for gasoline and other products at Shell-branded service stations. Bucks County and Pennsylvania consumers can also receive rewards, including discounts on gasoline purchases, by registering their personal identifying information in the Shell US App and using the application to identify and activate gas pumps at Shell service stations during a purchase.

24. BP, Chevron, ConocoPhillips, Exxon, and Shell are collectively referred to as the "Fossil Fuel Defendants."

²⁰ *Gas Station Near Me*, SHELL, <https://www.shell.us/motorist/gas-station-near-me.html> (last visited Mar. 13, 2024); *Retail Locations & Oil Change Near Me*, PENNZOIL, https://www.pennzoil.com/en_us/oil-change-retail-locations.html (last visited Mar. 13, 2024).

25. **American Petroleum Institute**

a. Defendant American Petroleum Institute, referred to herein as API, is a nonprofit corporation based in the District of Columbia and registered to business in Pennsylvania. API was created in 1919 to represent the American oil and gas industry as a whole. With more than 600 members, API is the country's largest oil trade association. API's purpose is to advance its members' collective business interests, which include increasing consumer consumption of oil and gas for the financial profit of oil and gas companies, including the Fossil Fuel Defendants. Among other functions, API also coordinates members of the petroleum industry, gathers information of interest to the industry, and disseminates that information to its members.

b. Acting on behalf of and under the supervision and control of the Fossil Fuel Defendants, API has, since at least 1988, participated in and led several coalitions, front groups, and organizations that have promoted disinformation about the climate impacts of fossil fuel products to consumers—including, but not limited to, the Global Climate Coalition, Partnership for a Better Energy Future, Coalition for American Jobs, Alliance for Energy and Economic Growth, and Alliance for Climate Strategies. These front groups were formed to promote climate disinformation and advocacy from a purportedly objective source, when in fact these groups were financed and controlled by the Fossil Fuel Defendants and other oil and gas companies. The Fossil Fuel Defendants have benefited from the spread of this disinformation because, among other things, it has ensured a thriving consumer market for oil and gas, resulting in substantial profits for the Fossil Fuel Defendants.

c. API's mission includes increasing consumers' consumption of oil and gas for the financial benefit of the Fossil Fuel Defendants and other oil and gas companies. In effect, API acts and has acted as a marketing arm for its member companies, including the Fossil Fuel

Defendants. Over the last several decades, API has spent millions of dollars on television, newspaper, radio, social media, and internet advertisements in the Bucks County and Pennsylvania markets.

d. Member companies participate in API strategy, governance, and operation through their membership dues and by contributing company officers and other personnel to API boards, committees, and task forces. The Fossil Fuel Defendants have collectively steered the policies and trade practices of API through membership, Executive Committee roles, and/or providing budgetary funding for API. The Fossil Fuel Defendants have used their control over and involvement in API to develop and execute a long-term advertising and communications campaign centered on climate change denialism. The goal of the campaign was to influence consumer demand for the Fossil Fuel Defendants' fossil fuel products. The Fossil Fuel Defendants directly controlled, supervised, and participated in API's misleading messaging regarding climate change.

e. In addition to national promotional campaigns circulated in Bucks County, API has also targeted Bucks County and Pennsylvania consumers directly by creating and disseminating misleading advertisements that distinctly promote consumption of fossil fuel products in Bucks County and Pennsylvania. API has run numerous press releases within Pennsylvania touting the direct and indirect benefits to Pennsylvania of the oil and gas industries' operations in Bucks County, in Pennsylvania, and elsewhere in the United States.²¹ API Pennsylvania Executive Director Stephanie Catarino Wissman has provided extensive testimony to the Pennsylvania legislature in opposition to proposed legislation governing oil and gas

²¹ *Pennsylvania's Workforce and Economy: Powered by Natural Gas and Oil*, API, <https://www.api.org/-/media/files/policy/american-energy/pwc/2023/api-pwc-pa-2023> (last visited Mar. 13, 2024).

development in Pennsylvania.²² The reports, sponsored by API, on which API bases its claims, do not mention climate change at all, nor do the reports mention any of the direct and indirect harms to Bucks County caused by the production, marketing, sale, and use of API members' fossil fuel products.

f. All of the Fossil Fuel Defendants and/or their predecessors-in-interest have been key API members and have closely coordinated their tortious conduct with API at all times relevant to this Complaint. All of the Fossil Fuel Defendants are currently members of API. Executives from Exxon, Shell, Chevron, ConocoPhillips, and BP have served on the API Executive Committee and/or as API Chairman, essentially serving as corporate officers. For example, Exxon's CEO served on API's Executive Committee for 15 of the 25 years between 1991 and 2016 (specifically, 1991, 1996-1997, 2001, and 2005-2016). BP's CEO served as API's Chairman in 1988, 1989, and 1998. Chevron's CEO served as API Chairman in 1994, 1995, 2003, and 2012. Executives from ConocoPhillips also served as members of API's Board of Directors at various times. Shell's President served on API's Executive Committee from 2005 to 2006. ConocoPhillips Chairman and CEO Ryan Lance was API Board President from 2016 to 2018, and Exxon President and CEO Darren Woods was API Board President from 2018 to 2020. In 2020, API elected Phillips 66 Chairman and CEO Greg Garland to serve a two-year term as its Board President. In 2022, API elected Chevron CEO and Chairman Mike Wirth to succeed Mr. Garland as Board Chairman.

g. Relevant information was shared among API and the Fossil Fuel Defendants and the Fossil Fuel Defendants' predecessors-in-interest through the following: (1)

²² *Written Testimony on House Bill 170*, American Petroleum Institute Pennsylvania, Stephanie Catarino Wissman, Executive Director, Pennsylvania House Environmental Resources and Energy Committee (Oct. 30, 2023) https://www.legis.state.pa.us/WU01/LI/TR/Transcripts/2023_0416_0007_TSTMNY.pdf.

API's distribution of information to its members, and/or (2) participation of the Fossil Fuel Defendants' officers and other personnel, and those of the Fossil Fuel Defendants' predecessors-in-interest, on API boards, committees, and task forces.

h. The County's claims against API arise out of and are related to the acts and omissions of API in Bucks County, in Pennsylvania, and elsewhere that caused and will cause injuries in Bucks County.

A. Relevant Non-Parties: Defendants' Agents/Front Groups

26. As detailed below, each Fossil Fuel Defendant had actual knowledge, or should have known, that its fossil fuel products were hazardous in that the intended use of the fossil fuel products for combustion would substantially contribute to climate change and result in harms to the County. The Fossil Fuel Defendants obtained knowledge of the hazards of their products independently and through their membership and involvement in trade associations such as API.

27. The Fossil Fuel Defendants and API employed, financed, and participated in several industry-created front groups to serve their mission of flooding the markets with climate change disinformation and denialism. These organizations, acting on behalf of and under the supervision and control of the Fossil Fuel Defendants, assisted the deception campaign by implementing public advertising and outreach campaigns to discredit climate science and funding scientists to cast doubt upon climate science and upon the extent to which climate change is caused by human activity. In sum, the Fossil Fuel Defendants, through their front groups, engaged in a significant marketing campaign that misrepresented and concealed the dangers of their fossil fuel products with the aim of protecting or enhancing sales of these products to consumers, including consumers in Bucks County and in Pennsylvania. Defendants actively supervised, facilitated, consented to, and/or directly participated in the misleading messaging of these front groups, from

which the Fossil Fuel Defendants profited significantly, including in the form of increased sales in Bucks County and Pennsylvania.

28. The Global Climate Coalition (“GCC”) was an industry group formed to preserve and expand consumer demand for fossil fuels by publicly casting doubt on climate science and opposing GHG emission-reduction initiatives. GCC was founded in 1989 in reaction to the first meeting of the Intergovernmental Panel on Climate Change (“IPCC”), the United Nations body for assessing the science related to climate change, and to National Aeronautics and Space Administration (“NASA”) scientist James Hansen’s presentation to the Senate Committee on Energy and Natural Resources, in which Mr. Hansen emphasized that climate change was already happening and would lead to dire consequences if left unaddressed. GCC disbanded in or around 2001. Founding members included API, Shell Oil Company (currently, Shell); Texaco, Inc. (currently, Chevron); Amoco (currently, BP); ARCO (owned by BP at the time); and Phillips Petroleum Company (currently, ConocoPhillips). Tom Lambrix, director of government relations for Phillips Petroleum, was chairman of GCC.

III. JURISDICTION AND VENUE

29. This Court has jurisdiction over this action pursuant to the 42 Pa. C.S.A. § 761.

30. This Court has jurisdiction over Defendants pursuant to 42 Pa. C.S.A. § 5322 because they have, among other things, transacted business; committed tortious acts; owned, used, or possessed real property; made or performed contracts or promises; acquired ownership, possession, or control of assets or things of value; performed corporate duties; and/or were organized in Pennsylvania.

31. Jurisdiction is proper over each resident Defendant because they are incorporated in Pennsylvania.

32. Additionally, jurisdiction is proper over each non-resident Defendant for the following reasons:

a. With respect to its subsidiaries, each non-resident Fossil Fuel Defendant parent controls and has controlled decisions about the quantity and extent of its fossil fuel production and sales; determines whether and to what extent to market, produce, and/or distribute its fossil fuel products; and controls and has controlled decisions related to its marketing and advertising, specifically communications strategies concerning climate change and the link between fossil fuel use and impacts on the environment. Each non-resident Fossil Fuel Defendant parent has the power to direct and control its non-resident subsidiaries named here. Thus, each subsidiary is the agent of its parent. As agents, the subsidiaries of each non-resident Fossil Fuel Defendant conducted activities in Bucks County and Pennsylvania at the direction and for the benefit of its parent company. Specifically, the subsidiaries furthered each parent company's campaign of deception and denial through misrepresentations, omissions, and affirmative promotion of the company's fossil fuel products as safe with knowledge of the climate change-related harms that would result from the intended use of those products, all of which resulted in climate change-related injuries in Bucks County and increased sales to the parent company. Therefore, the subsidiaries' jurisdictional activities are properly attributed to each parent company and serve as a basis to assert jurisdiction over each of the non-resident Fossil Fuel Defendant parent companies.

b. Through their various agreements with dealers, franchises, or otherwise, the Fossil Fuel Defendants direct and control the branding, marketing, sales, promotions, image development, signage, and advertising of their branded fossil fuel products at their respectively branded gas stations in Bucks County and in Pennsylvania, including point-of-sale advertising and

marketing. The Fossil Fuel Defendants dictate which grades and formulations of their gasoline may be sold at their respectively branded stations.

c. The Fossil Fuel Defendants, by and through API and other organizations like GCC, conspired to conceal and misrepresent the known dangers of burning fossil fuels, to knowingly withhold material information regarding the consequences of using fossil fuel products, to spread knowingly false and misleading information to the public regarding the weight of climate science research, and to engage in massive campaigns to promote continued and increased use of their fossil fuel products, which they knew would result in injuries to the County and its natural resources. Through their own actions and through their membership and participation in climate denialist front groups, API and each Fossil Fuel Defendant were and are members of this conspiracy. Defendants committed substantial acts to further the conspiracy in Bucks County and Pennsylvania by making affirmative misrepresentations to Bucks County and Pennsylvania consumers, as well as misleading them by omission, about the existence, causes, and effects of global warming; and by affirmatively promoting the Fossil Fuel Defendants' fossil fuel products as safe, with knowledge of the disastrous impacts that would result from the intended use of those products. A substantial effect of this conspiracy has also and will also occur in Bucks County, as the County has suffered and will continue to suffer injuries from Defendants' wrongful conduct, including but not limited to the following: extreme heat, severe droughts, massive storms, flooding, increased seasonal temperatures, sea-level rise, coastal erosion, damage to ecosystems, habitat, and other natural resources, biodiversity disruption, public health injuries, and other social and economic consequences of these environmental changes. Defendants knew or should have known—based on information provided to them from their internal research divisions, affiliates, trade associations, and industry groups—that their actions in Bucks County, Pennsylvania, and

elsewhere would result in these injuries in and to the County. Finally, the climate effects described herein are direct and foreseeable results of Defendants' conduct in furtherance of the conspiracy.

33. No federal subject matter jurisdiction exists or is invoked herein.

34. Venue for this action is proper in Bucks County because it is the judicial district in which Plaintiff resides and are citizens, a substantial part of the property that is the subject of this action is situated in the judicial district, and a substantial part of the events or omissions giving rise to this action occurred in this judicial district.

IV. FACTUAL ALLEGATIONS

A. Defendants Are Substantially Responsible for Causing and Accelerating Climate Change.

35. The earth's atmosphere is warming, sea level is rising, snow and ice cover is diminishing, oceans are warming and acidifying, and hydrologic systems have been altered, among other rapidly accelerating changes to our climate. These changes are directly harming people's health, lives, lifestyles, and livelihoods, including in Bucks County.

36. In the geological short term, ocean and land surface temperatures have increased at a rapid pace during the late 20th and early 21st centuries:

a. 2023 was the hottest year on record by globally averaged surface temperatures, exceeding mid-20th century mean ocean and land surface temperatures by approximately 2.12° F. Each month in 2023 was hotter by globally averaged surface temperatures than those respective months in any previous year. June, July, August, September, October, November, and December 2023 were all the hottest average surface temperatures for those months.²³

²³ NOAA National Center for Environmental Information, *Annual 2023 Global Climate Report*, NOAA (Jan. 2024), <https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/202313>.

b. The second hottest year on record by globally averaged surface temperatures was 2016, and the third hottest was 2020.²⁴

c. The ten hottest years on record by globally averaged surface temperature have all occurred since 2014.²⁵

37. The average global surface and ocean temperature in 2023 was approximately 2.12° F warmer than the 20th century baseline, which is the greatest positive anomaly observed since at least 1850.²⁶ The increase in hotter temperatures and more frequent positive anomalies during the Great Acceleration is occurring both globally and locally, including in Bucks County. The graph below shows the increase in global land and ocean temperature anomalies since 1850, as measured against the 1901–2000 global average temperature.²⁷

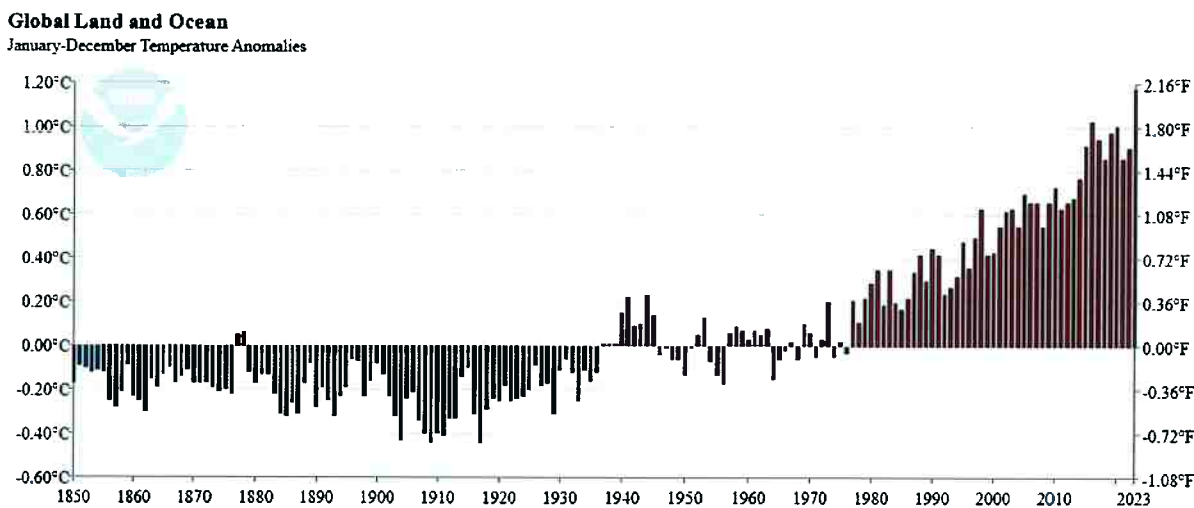


Figure 1: NOAA Global Land and Ocean Temperatures²⁸

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *See id.*

²⁸ *Id.*

38. According to the IPCC, the evidence that humans are causing this warming of the Earth is unequivocal.²⁹

39. Greenhouse gas emissions caused by human activities are the most significant driver of climate change and ocean acidification.³⁰ Over the past couple of decades, those emission rates have exceeded those predicted under previous “worst case” global emissions scenarios. The severity of the continuing impacts of climate change on Bucks County will depend on the success of mitigation and adaptation efforts in the County and on the reduction of fossil fuel consumption.

40. Greenhouse gases are largely byproducts of human combustion of fossil fuels to produce energy and use of fossil fuels to create petrochemical products. While there are several greenhouse gases contributing to climate change, CO₂ is the primary greenhouse gas emitted as a result of human activities.

41. Prior to World War II, most anthropogenic CO₂ emissions were caused by land-use practices, such as forestry and agriculture, which altered the ability of the land and global biosphere to absorb CO₂ from the atmosphere. The impacts of such activities on Earth’s climate were relatively minor. Since that time, however, both the annual rate and total volume of anthropogenic CO₂ emissions have increased enormously following the dramatic rise of the combustion of oil, gas, and coal, in particular in the transportation industry and in the stationary energy market.

42. The graph below illustrates that fossil fuel emissions are the dominant source of increases in atmospheric CO₂ since the mid-twentieth century:

²⁹ *Climate Change 2021: The Physical Science Basis*, IPCC, at v, 4, 41, 63, 150, 425, 506 (2021), https://report.ipcc.ch/ar6/wg1/IPCC_AR6_WGI_FullReport.pdf.

³⁰ *Id.* at 41.

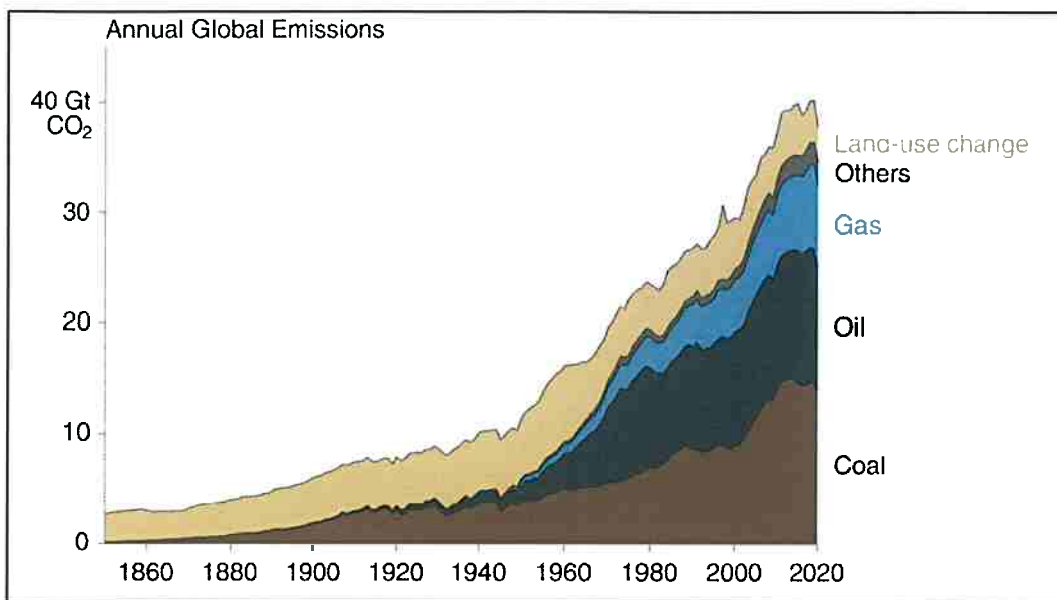


Figure 2: Annual Global Emissions, 1850–2020³¹

43. This acceleration of fossil fuel emissions has led to a correspondingly sharp rise in atmospheric concentration of CO₂. Since 1960, the concentration of CO₂ in the atmosphere has spiked from under 320 parts per million (“ppm”) to approximately 424 ppm.³² The concentration of atmospheric CO₂ has also been accelerating. From 1960 to 1970, atmospheric CO₂ increased by an average of approximately 0.9 ppm per year; over the last five years, it has increased by approximately 2.4 ppm per year.³³

44. Figure 3 indicates the tight nexus between the sharp increase in emissions from the combustion of fossil fuels and the steep rise of atmospheric concentrations of CO₂.

³¹ *Global Carbon Budget 2021*, GLOBAL CARBON PROJECT, at 83 (Nov. 4, 2021), https://www.globalcarbonproject.org/carbonbudget/archive/2021/GCP_CarbonBudget_2021.pdf.

³² *Trends in Atmospheric Carbon Dioxide: Full Record*, GLOBAL MONITORING LAB’Y, <https://gml.noaa.gov/ccgg/trends/mlo.html> (last visited Mar. 13, 2024).

³³ *Trends in Atmospheric Carbon Dioxide: Growth Rate*, GLOBAL MONITORING LAB’Y, <https://gml.noaa.gov/ccgg/trends/gr.html> (last visited Mar. 13, 2024).

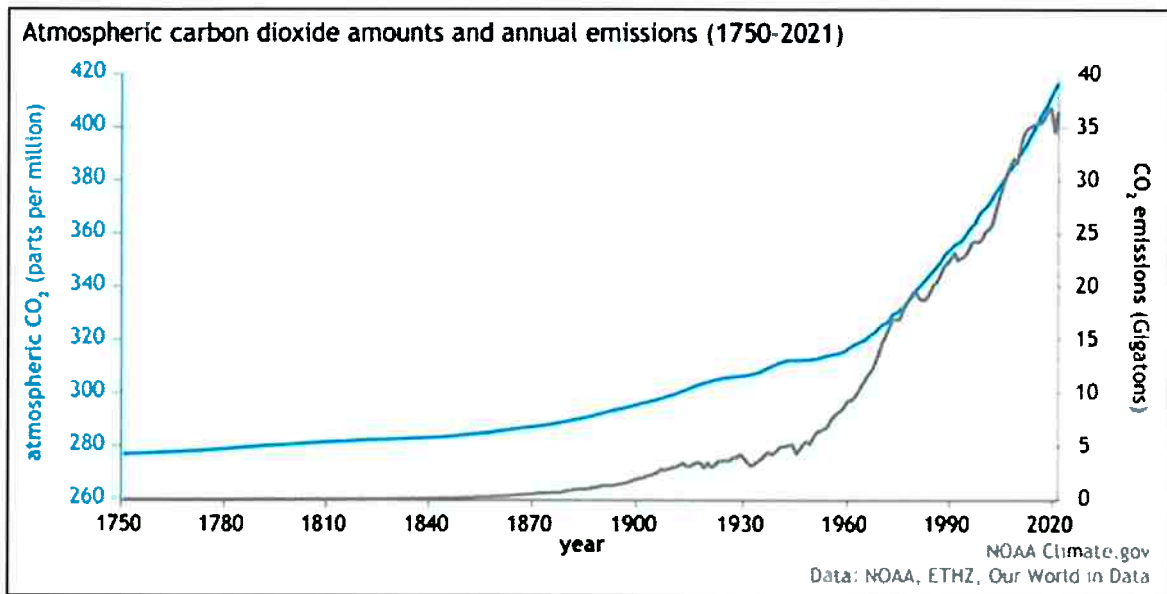


Figure 3: Atmospheric CO₂ Concentration and Annual Emissions³⁴

45. Because of the increased burning of fossil fuel products, concentrations of greenhouse gases in the atmosphere are now at an unprecedented level, one not seen in at least three million years.³⁵

46. As greenhouse gases accumulate in the atmosphere, the Earth radiates less energy back to space. This accumulation and associated disruption of the Earth's energy balance have a myriad of environmental and physical consequences, including, but not limited to, the following:

a. Warming of the Earth's average surface temperature, both locally and globally, and increased frequency and intensity of heat waves. To date, global average surface temperatures have risen approximately 1.09°C (1.96°F) above preindustrial temperatures; temperatures in particular locations have risen more.

³⁴ Rebecca Lindsey, *Climate Change: Atmospheric Carbon Dioxide*, CLIMATE.GOV (May 12, 2023), <https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide>.

³⁵ *More CO₂ than ever before in 3 million years, shows unprecedented computer simulation*, SCI. DAILY (Apr. 3, 2019), <https://www.sciencedaily.com/releases/2019/04/190403155436.htm>.

b. Changes to the global climate generally, bringing about longer droughts and dry periods interspersed with fewer and more severe periods of precipitation, and associated impacts to the quantity and quality of water resources available to both human and ecological systems.

c. Increased frequency and intensity of extreme weather events due to increases in evaporation, evapotranspiration, and precipitation, a consequence of the warming atmosphere's increased ability to hold moisture.

d. Adverse impacts on human health associated with extreme weather, extreme heat, worsening air quality, and vector-borne illnesses.

e. Flooding and inundation of land and infrastructure, increased erosion, higher wave run-up and tides, increased frequency and severity of storm surges, saltwater intrusion, and other impacts of higher sea levels.

f. Sea level rise, due to the thermal expansion of warming ocean waters and runoff from melting glaciers and ice sheets.

g. Ocean acidification, primarily due to the increased uptake of atmospheric carbon dioxide by the oceans.

h. Changes to terrestrial and marine ecosystems, and consequent impacts on the populations and ranges of flora and fauna.

47. Bucks County specifically has seen environmental and physical consequences, including more frequent and severe flood events, water level rises resulting in septic backups and other water quality issues, several major heat waves, an increase in above-average temperature

patterns, intensification of heat island effects, and heavy rainfall events increasing in severity and frequently.³⁶

48. As further discussed below, these consequences of Defendants' tortious and deceptive conduct and its exacerbation of the climate crisis are already impacting Bucks County, its communities, its people's health, and its natural resources, and these impacts will continue to increase in severity. Absent Defendants' tortious and deceptive conduct and resultant contributions to global warming, these harmful effects would have been far less extreme than those currently occurring. Similarly, future harmful effects would also have been far less detrimental—or would have been avoided entirely.³⁷

49. From at least 1965 until the present, Defendants unduly inflated the market for fossil fuel products by aggressively promoting the use of these products while knowing their associated dangers, and by misrepresenting and concealing the hazards of those products to deceive consumers and the public about the consequences of everyday use of fossil fuel products. Consequently, substantially more anthropogenic greenhouse gases have been emitted into the environment than would have been emitted absent Defendants' tortious and deceptive conduct.

³⁶ See Mid-Atlantic Regional Integrated Sciences and Assessments, *Community Climate Outlook for Bucks County*, PENN STATE COLL. OF EARTH AND MINERAL SCIS. (April 26, 2022) https://www.marisa.psu.edu/misc/outlooks/2022-01-11/PA/Bucks_County_PA.pdf.

³⁷ See, e.g., Peter U. Clark et al., *Consequences of Twenty-First-Century Policy for Multi-Millennial Climate and Sea-Level Change*, 6 NATURE CLIMATE CHANGE 360, 365 (2016) (“Our modelling suggests that the human carbon footprint of about [470 billion tons] by 2000 . . . has already committed Earth to a [global mean sea level] rise of ~1.7m (range of 1.2 to 2.2 m).”).

50. By quantifying GHG pollution attributable to the Fossil Fuel Defendants' products and conduct, climatic and environmental responses to those emissions are also calculable and can be attributed to the Fossil Fuel Defendants both on an individual and an aggregate basis.³⁸

51. Defendants' tortious, deceptive, and unconscionable conduct, as alleged herein, caused a substantial portion of the global atmospheric GHG concentrations, and the past, ongoing, and future disruptions to the environment—and consequent injuries to Bucks County, its communities, and its natural resources—associated therewith.

52. Defendants, individually and collectively, have substantially and measurably contributed to Bucks County's climate crisis-related injuries.

53. Defendants have known for decades that fossil fuels—their chief products—are the primary cause of climate change and that, if unabated, climate change could result in catastrophic impacts, including droughts, flooding, and severe weather events that would impose enormous harms on cities and counties such as Bucks County. Despite this knowledge, these corporations and their trade associations have embarked on tobacco-industry-style campaigns to deceive and mislead the public about the damaging nature of their fossil fuel products. These campaigns initially took the form of denial of the reality of climate change or attempts to cast the science surrounding these issues as uncertain or subject to reasonable debate. Later, these campaigns transformed in part to falsely suggest that continued consumption of Defendants' products is consonant with mitigating climate change.

³⁸ See Richard Heede, *Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854–2010*, 122 CLIMATIC CHANGE 229 (2013), <https://link.springer.com/article/10.1007/s10584-013-0986-y>.

B. Defendants Went to Great Lengths to Understand the Dangers Associated with Fossil Fuel Products, and Either Knew or Should Have Known of Those Dangers.

54. Defendants have known about the potential warming effects of GHG emissions since as early as the 1950s, and they developed a sophisticated understanding of climate change that far exceeded the knowledge of the general public. Although it was concealed at the time, the industry's knowledge was uncovered in 2015 by journalists at *Inside Climate News* and the *Los Angeles Times*, among others.³⁹

55. In 1954, geochemist Harrison Brown and his colleagues at the California Institute of Technology wrote to API, informing the trade association of their finding that fossil fuels had caused atmospheric carbon dioxide levels to increase by about five percent since 1840.⁴⁰ API continued to fund the scientists for various research projects and measurements of carbon dioxide, but the results were never published.⁴¹ In 1957, H.R. Brannon of Humble Oil Company (a predecessor-in-interest to Exxon) measured an increase in atmospheric carbon dioxide attributable to fossil fuels, similar to—and in agreement with—that measured by Harrison Brown.⁴²

³⁹ See, e.g., Neela Banerjee et al., *Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago*, INSIDE CLIMATE NEWS (Sept. 16, 2015), <https://insideclimatenews.org/news/16092015/exxons-own-research-confirmed-fossil-fuels-role-in-global-warming/>; Katie Jennings et al., *How Exxon went from leader to skeptic on climate change research*, L.A. TIMES (Oct. 23, 2015), <https://graphics.latimes.com/exxon-research>; Sarah Jerving et al., *What Exxon knew about the Earth's melting Arctic*, L.A. TIMES (Oct. 10, 2015, 12:00 AM PT), <https://www.latimes.com/business/la-na-adv-exxon-arctic-20151011-story.html>; Amy Lieberman & Susanne Rust, *Big Oil braced for global warming while it fought regulations*, L.A. TIMES (Dec. 31, 2015), <https://graphics.latimes.com/oil-operations>.

⁴⁰ Benjamin Franta, *Early oil industry knowledge of CO₂ and global warming*, 8 NATURE CLIMATE CHANGE 1024, 1024 (2018).

⁴¹ *Id.*

⁴² *Id.*; H. R. Brannon, Jr. et al., *Radiocarbon evidence on the dilution of atmospheric and oceanic carbon by carbon from fossil fuels*, 38 AM. GEOPHYSICAL UNION TRANSACTIONS 643, 644-46 (1957).

56. In 1959, API organized an oil industry celebration in New York City.⁴³ High-level oil industry executives were in attendance, and one of the keynote speakers was the nuclear physicist, Edward Teller. Mr. Teller warned the industry that “a temperature rise corresponding to a 10 percent increase in carbon dioxide will be sufficient to melt the icecap and submerge . . . [a]ll the coastal cities.” Mr. Teller added that since “a considerable percentage of the human race lives in coastal regions, [he] think[s] that this chemical contamination is more serious than most people tend to believe.”⁴⁴ Following his speech, Mr. Teller was asked to “summarize briefly the danger from increased carbon dioxide content in the atmosphere in this century.” He responded that “there is a possibility the icecaps will start melting and the level of the oceans will begin to rise.”⁴⁵

57. “In 1962, Marion King Hubbert, Chief Geology Consultant at Shell and former director of its research labs, produced a book-length report on the earth’s Energy Resources for a committee of the National Academy of Sciences. The report, which draws heavily upon a 1956 analysis [Mr.] Hubbert prepared for [API], demonstrates Shell’s profound understanding of the earth’s energy balance, including the differences in the reflection of long- and short-wave solar radiation back into space, the role of global atmospheric temperatures in driving global weather, and the intrinsic and delicate natural balance between the heat energy absorbed by plants through photosynthesis with the equivalent energy released by plant matter through natural decay.”⁴⁶

58. In 1965, the president of API, Frank Ikard, addressed leaders of the petroleum industry at the trade association’s annual meeting. Mr. Ikard relayed the findings of a recent report

⁴³ See Allan Nevins & Robert G. Dunlop, *Energy and Man: A Symposium* (1960); see also Franta, *supra* note 40 at 1024.

⁴⁴ Edward Teller, *Energy Patterns of the Future*, in *Energy and Man: A Symposium*, at 58 (1960).

⁴⁵ *Id.* at 70.

⁴⁶ *A Crack in the Shell: New Documents Expose a Hidden Climate History* (April 2018), CTR. FOR INT’L ENV’T LAW (2018), <https://www.ciel.org/reports/a-crack-in-the-shell/>.

to industry leaders, saying, “[o]ne of the most important predictions of the report is that carbon dioxide is being added to the earth’s atmosphere by the burning of coal, oil, and natural gas at such a rate that by the year 2000 the heat balance will be so modified as possibly to cause marked changes in climate beyond local or even national efforts,” and quoting the report’s finding that “the pollution from internal combustion engines is so serious, and is growing so fast, that an alternative nonpolluting means of powering automobiles, buses, and trucks is likely to become a national necessity.”⁴⁷

59. Thus, at least by 1965, Defendants and their predecessors-in-interest were aware that the scientific community had found that fossil fuel products, if their use continued to grow, would cause global warming by the end of the century, and that such global warming would have wide-ranging and costly consequences.

60. In 1968, API received a report from the Stanford Research Institute, which it had hired to assess the state of research on environmental pollutants, including carbon dioxide.⁴⁸ The assessment stated: “Significant temperature changes are almost certain to occur by the year 2000, and . . . there seems to be no doubt that the potential damage to our environment could be severe.” The scientists warned of “melting of the Antarctic ice cap” and informed API that “[p]ast and present studies of CO₂ are detailed and seem to explain adequately the present state of CO₂ in the atmosphere.” What was missing, the scientists said, was work on “air pollution technology and . . . systems in which CO₂ emissions would be brought under control.”⁴⁹

⁴⁷ Frank Ikard, *Proceedings 1965: Meeting the Challenges of 1966*, API., at 13 (1965) <https://www.documentcloud.org/documents/5348130-1965-API-Proceedings>.

⁴⁸ . Robinson & R.C. Robbins, *Sources, abundance, and fate of gaseous atmospheric pollutants*, Project PR-6755, STANFORD RSCH. INST., at 109-10 (1968).

⁴⁹ *Id.* at 108, 112.

61. In 1969, the Stanford Research Institute delivered a supplemental report on air pollution to API, projecting with alarming particularity that atmospheric CO₂ concentrations would reach 370 ppm by 2000.⁵⁰ This projection turned out to almost exactly match the actual CO₂ concentrations measured in 2000 of 369.64 ppm.⁵¹ The report explicitly connected the rise in CO₂ levels to the combustion of fossil fuels, finding it “unlikely that the observed rise in atmospheric CO₂ has been due to changes in the biosphere.”⁵² By virtue of their membership and participation in API at that time, the Fossil Fuel Defendants received or should have received the Stanford Research Institute reports, and thus were on notice of the conclusions in those reports.⁵³

62. Continuing through the 1970s and beyond, Defendants continued to devote resources to understanding the role that GHG emissions play in creating global climate change, and they continued to share what they found among themselves. Simultaneously, Defendants, through API, promoted the idea that Fossil Fuel Defendant profits *must* increase because “the security of your future supply of gasoline, heating oil, natural gas, and other forms of energy quite literally hang[] in the balance” of these corporate profits.⁵⁴

⁵⁰ E. Robinson & R.C. Robbins, *Sources, abundance, and fate of gaseous atmospheric pollutants, Project PR-6755, Supplemental Report*, STANFORD RSCH. INST., at 3 (1969).

⁵¹ *Global Mean CO₂ Mixing Ratios (ppm): Observations*, NASA, <https://data.giss.nasa.gov/modelforce/ghgases/fig1A.ext.txt> (last visited Mar. 13, 2024).

⁵² Robinson & Robbins, *supra* note 50 at 19.

⁵³ Abstracts of the Stanford Research Institute studies were included in a 1972 API status report to its members. See *Environmental Research: A Status Report*, API, at 103 (Jan. 1972) <http://files.eric.ed.gov/fulltext/ED066339.pdf>.

⁵⁴ API, *You've read the headlines about oil company profits. Now read what they mean to you.*, PHILA. INQUIRER AND DAILY NEWS (May 10, 1974) <https://philly.newspapers.com/image/180412089>.

You've read the headlines about oil company profits. Now read what they mean to you.

Are improved profits for oil companies good or bad for you as a consumer? Most people would say "bad" without thinking even once about it. And some might add a few other words:

But it really isn't that simple. The "good" part is that profits are the key to opening up more energy sources. For years, Americans have been using petroleum fuels faster than the industry has been able to find and produce oil and gas in this country. And despite on-going conservation efforts—which are essential—energy demand in the U.S. continues to grow.

Needed for Energy
\$500,000,000,000

To catch up and keep up, U.S. oil companies will have to find and produce twice as much oil and gas in the next 15 years as they did in the past 15.

Needed: half a trillion. To do this, the petroleum companies' financial needs in the United States alone will top half a trillion dollars—that's \$500,000,000,000!

Profits are the key to raising this capital. All through the 1960s and up until 1973, oil company earnings were far below the level required to finance needed exploration, drilling and refinery construction. In 1973, oil company earnings improved.

And, as you doubtless have heard, the improvement has continued in the early months of 1974. A large part of this improvement has been because of earnings outside the United States.

Profits—about 30 per gallon.

Oil company profits on gasoline in the U.S. in 1973 averaged about 26 per gallon—a fact which surprises most people. By contrast, state and federal taxes on gasoline range from 6¢ to 14¢ per gallon.

Now, where do the oil company profits go?

A portion must be paid to shareholders as dividends, in return for the use of their

money. The rest—usually more than half—goes right back into the business. It's used to find new oil and gas and to help finance refineries and other facilities to get energy to you.

Petroleum industry expansion needs are far too great, however, to be met solely from profits—even when they're good.

For example, over the past 5 years, oil companies have spent \$5 for expansion for every \$3 earned in profits.

This means that companies must attract vast sums of money from outside the industry. And lenders and investors understandably demand the prospect of good earnings—particularly in high-risk ventures such as oil and natural gas exploration.

Profits: key to more energy.

When profits decline, less money is available for exploration and expansion of energy facilities. When profits increase, capital spending also increases. New investment ideas and falls with the industry's financial performance.

Why is all this important to you as a consumer of energy?

Because the security of your future supply of gasoline, heating oil, natural gas and other forms of energy quite literally hangs in the balance.

There's a lot more to oil company profits than catch-phrases and headlines—much more than we've been able to present here.

Full profit story: write for it.

If you'd like to know more about petroleum profits, we'll send you a copy of a recent study analyzing oil company profits, "The Profit Situation: A Special Petroleum Report," published by The Chase Manhattan Bank.



Write to: AMERICAN PETROLEUM INSTITUTE, Department K, 1801 K Street, Northwest, Washington, D.C. 20008.

American Petroleum Institute

Figure 4: American Petroleum Institute advertisement in the *Philadelphia Inquirer*⁵⁵

⁵⁵ *Id.*

63. Among other Defendants, “Shell was actively supporting research that clearly underscored the dangers posed by burning its fossil fuel products from the mid-1970s.”⁵⁶

64. In 1977, James Black of Exxon gave a presentation to Exxon executives on the “greenhouse effect,” which was summarized in an internal memo the following year. Mr. Black reported that “current scientific opinion overwhelmingly favors attributing atmospheric carbon dioxide increase to fossil fuel consumption,” and that doubling atmospheric carbon dioxide would, according to the best climate model available, “produce a mean temperature increase of about 2°C to 3°C over most of the earth,” with two to three times as much warming at the poles.⁵⁷ Mr. Black reported that the impacts of global warming would include “more rainfall,” which would “benefit some areas and would harm others,” and that “[s]ome countries would benefit, but others could have their agricultural output reduced or destroyed.” “Even those nations which are favored, however, would be damaged for a while since their agricultural and industrial patterns have been established on the basis of the present climate.” Finally, Mr. Black reported that “[p]resent thinking holds that man has a time window of five to ten years before the need for hard decisions regarding changes in energy strategies might become critical.”⁵⁸ The figure below, reproduced from Black’s memo, illustrates Exxon’s understanding of the timescale and magnitude of global warming that its products would cause.

⁵⁶ Matthew Green, *Lost Decade: How Shell Downplayed Early Warnings Over Climate Change*, DESMOG (Mar. 31, 2023), <https://www.desmog.com/2023/03/31/lost-decade-how-shell-downplayed-early-warnings-over-climate-change/>.

⁵⁷ J.F. Black, *Memo to F.G. Turpin, The Greenhouse Effect*, Exxon Rsch. and Engineering Co. re The Greenhouse Effect, EXXON RESEARCH AND ENGINEERING CO., at 2, 23 (June 6, 1978) <https://www.documentcloud.org/documents/2805568-1978-Exxon-Presentation-on-Greenhouse-Effect>.

⁵⁸ *Id.* at 2.

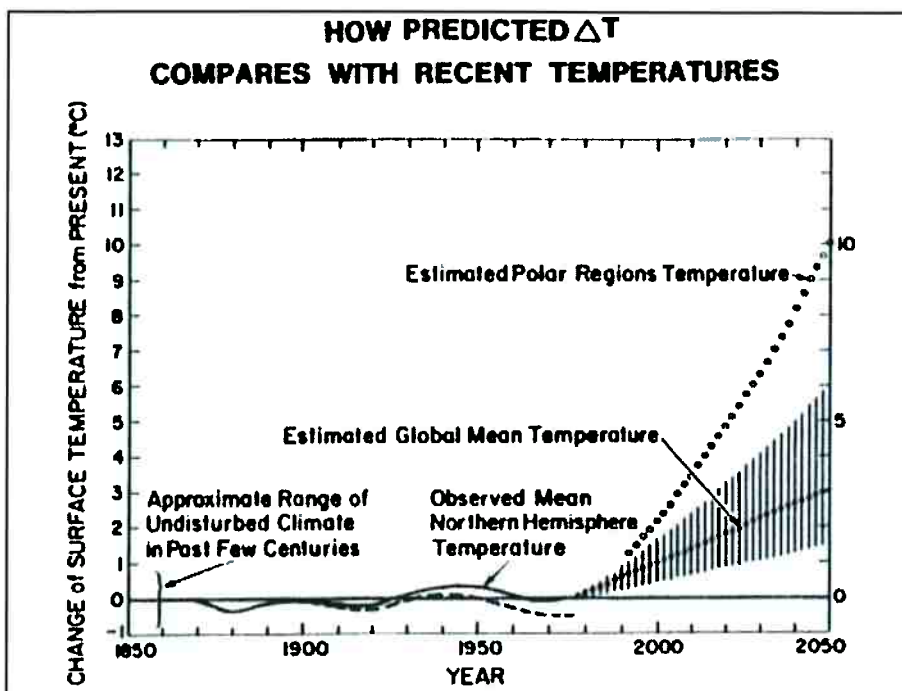


Figure 5: Future Global Warming Predicted Internally by Exxon in 1978⁵⁹

65. In 1979, an internal Exxon memorandum stated, “The most widely held theory [about the increase in CO₂ concentration in the atmosphere] is that: The increase is due to fossil fuel combustion; [i]ncreasing CO₂ concentration will cause a warming of the earth’s surface; [and t]he present trend of fossil fuel consumption will cause dramatic environmental effects before the year 2050. . . . The potential problem is great and urgent.” The memo added that, if limits were not placed on fossil fuel production, the following would occur:

Noticeable temperature changes would occur around 2010 as the [CO₂] concentration reaches 400 ppm. Significant climatic changes occur around 2035 when the concentration approaches 500 ppm. A doubling of the pre-industrial concentration [*i.e.*, 580 ppm] occurs around 2050. The doubling would bring about dramatic changes in the world’s environment[.]⁶⁰

⁵⁹ *Id.* at 26 (The company predicted global warming of 1°C to 3°C by 2050, with 10°C warming in polar regions. The difference between the lower dashed and solid curves prior to 1977 represents global warming that Exxon believed may already have been occurring).

⁶⁰ W.L. Ferrall, *Memo to Dr. R.L. Hirsch on Controlling the CO₂ Concentration in the Atmosphere*, EXXON RSCH. AND ENGINEERING CO., at 1-2, 5 (Oct. 16, 1979) <https://www.industrydocuments.ucsf.edu/docs/mqw10228>.

66. The memo highlighted that there was “no practical means” to capture and store carbon emissions and so “dramatic changes in patterns of energy use would be required” to avoid environmental damage. Significantly, in order to limit CO₂ emissions to avoid these harms, fossil fuel emissions would have to peak in the 1990s and alternative energies must be rapidly deployed. Eighty percent of fossil fuel resources would remain undeveloped, thus “coal and possibly other fossil fuel resources could not be utilized to an appreciable extent.” Certain fossil fuels, such as shale oil, could not be substantially exploited at all.⁶¹

67. Those projections proved remarkably accurate. Annual average atmospheric CO₂ concentrations surpassed 400 ppm in 2015 for the first time in millions of years.⁶² Limiting the CO₂ concentration in the atmosphere to 440 ppm, or a 50 percent increase over preindustrial levels, which the Exxon memo said was “assumed to be a relatively safe level for the environment,” would require fossil fuel emissions to peak in the 1990s and non-fossil energy systems to be rapidly deployed. Eighty percent of fossil fuel resources, the memo calculated, would have to be left in the ground to avoid doubling atmospheric CO₂ concentrations. Certain fossil fuels, such as shale oil, could not be substantially exploited at all.⁶³

68. But instead of heeding these dire and repeated warnings, in November 1979, according to internal correspondence, Exxon urged “a very aggressive defensive program in . . . atmospheric science and climate because there [wa]s a good probability that legislation affecting

⁶¹ *Id.*

⁶² Nicola Jones, *How the World Passed a Carbon Threshold and Why It Matters*, YALE ENV'T 360 (Jan. 26, 2017), <http://e360.yale.edu/features/how-the-world-passed-a-carbon-threshold-400ppm-and-why-it-matters>.

⁶³ Ferrall, *supra* note 60 at 3, 6-7.

[its] business w[ould] be passed.”⁶⁴ It urged an expanded research effort to “influence possible legislation on environmental controls” and suggested the formation of a “small task force” to evaluate a potential program in CO₂ and climate, acid rain, carcinogens, fine particulates, and other pollution issues caused by fossil fuels.⁶⁵

69. In 1979, API and its members, including the Fossil Fuel Defendants, convened a Task Force to monitor and share cutting-edge climate research among members of the oil industry. This Climate and Energy Task Force (hereinafter referred to as “CO₂ Task Force”) included senior scientists and engineers from nearly every major U.S. and multinational oil and gas company—including Exxon, Mobil, Amoco, Phillips, Texaco, Shell, and Standard Oil of Ohio, as well as Standard Oil of California and Gulf Oil, the predecessors to Chevron—and was charged with monitoring research, evaluating the implications of emerging science for the petroleum and gas industries, and identifying where potential reductions in GHG emissions from Defendants’ fossil fuel products could be made.⁶⁶

70. In 1979, a paper prepared by API for the CO₂ Task Force asserted that CO₂ concentrations were rising, and predicted that, although global warming would occur, it would likely go undetected until approximately the year 2000 because its effects were being temporarily

⁶⁴ Henry Shaw, *Memo from H. Shaw to H.N. Weinberg Regarding Research in Atmospheric Science*, at 2 (Nov. 19, 1979), <https://insideclimatenews.org/wp-content/uploads/2015/09/Probable-Legislation-Memo-1979.pdf>.

⁶⁵ *Id.* at 1-2.

⁶⁶ Neela Banerjee, *Exxon’s Oil Industry Peers Knew About Climate Dangers in the 1970s, Too*, INSIDE CLIMATE NEWS (Dec. 22, 2015), <https://insideclimatenews.org/news/22122015/exxon-mobil-oil-industry-peers-knew-about-climate-change-dangers-1970s-american-petroleum-institute-api-shell-chevron-texaco/>.

masked by a natural cooling trend, which would revert to a warming trend around 1990, adding to the warming caused by CO₂.⁶⁷

71. In 1980, at the invitation of the CO₂ Task Force, climate expert J. Laurman delivered to API members a presentation providing a “complete technical discussion” of global warming caused by fossil fuels, including “the scientific basis and technical evidence of CO₂ buildup, impact on society, methods of modeling and their consequences, uncertainties, policy implications, and conclusions that can be drawn from present knowledge.”⁶⁸ Mr. Laurman informed the CO₂ Task Force of the “scientific consensus on the potential for large future climatic response to increased CO₂ levels” and that there was “strong empirical evidence that [the carbon dioxide] rise [was] caused by anthropogenic release of CO₂, mainly from fossil fuel burning.”⁶⁹ According to Mr. Laurman, unless fossil fuel production and use were controlled, atmospheric carbon dioxide would be twice preindustrial levels by 2038, using a three percent per annum growth of atmospheric release rate, with “likely impacts” along the following trajectory:

1°C RISE (2005): BARELY NOTICEABLE

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

5°C RISE (2067): GLOBALLY CATASTROPHIC EFFECTS

Mr. Laurman warned the CO₂ Task Force that global warming of 2.5°C would “bring[] world economic growth to a halt.” The minutes of the meeting, which were distributed to the entire CO₂ Task Force, show that one of the Task Force’s goals was “to help develop ground rules for . . . the

⁶⁷ R.J. Campion, *Memorandum from R.J. Campion to J.T. Burgess Regarding the API's Background Paper on CO₂ Effects* (Sept. 6, 1979), <https://www.industrydocuments.ucsf.edu/docs/lqw10228>.

⁶⁸ J. J. Nelson, *Letter to AQ-9 Task Force regarding The CO₂ Problem; Addressing Research Agenda Development*, at 2 (Mar. 18, 1980) <https://www.industrydocuments.ucsf.edu/docs/gffl0228>.

⁶⁹ *Id.* at 9-10 (full capitalization in original removed).

cleanup of fuels as they relate to CO₂ creation,” and the Task Force discussed potential research into the market and technical requirements for a worldwide “energy source changeover” away from fossil fuels.⁷⁰

72. In 1980, Imperial Oil Limited, an Exxon subsidiary, reported to managers and staff at affiliated Esso and Exxon companies that there was “no doubt” that fossil fuels were aggravating the build-up of CO₂ in the atmosphere, and that “[t]echnology exist[ed] to remove CO₂ from stack gases but removal of only 50 [percent] of the CO₂ would double the cost of power generation.”⁷¹

73. In December 1980, an Exxon manager distributed a memorandum on the “CO₂ Greenhouse Effect” attributing future buildup of carbon dioxide to fossil fuel use, and explaining that internal calculations indicated that atmospheric carbon dioxide could double by around 2060, “most likely” resulting in global warming of approximately $3.0 \pm 1.5^{\circ}\text{C}$.⁷² Calculations predicting a lower temperature increase, such as 0.25°C , were “not held in high regard by the scientific community[.]” The memo also reported that such global warming would cause “increased rainfall[] and increased evaporation,” which would have a “dramatic impact on soil moisture, and in turn, on agriculture” and other “serious global problems[.]” The memo called for “society” to pay the bill, estimating that some adaptive measures would cost no more than “a few percent” of Gross National Product.⁷³ Henry Shaw also reported that Exxon had studied various responses for avoiding or reducing a carbon dioxide build-up, including “stopping all fossil fuel combustion at

⁷⁰ *Id.* at 1, 13.

⁷¹ Imperial Oil Ltd., *Review of Environmental Protection Activities for 1978–1979*, at 2 (Aug. 6, 1980) <http://www.documentcloud.org/documents/2827784-1980-Imperial-Oil-Review-of-Environmental.html#document/>.

⁷² Henry Shaw & P. P. McCall, *Memorandum to T.K. Kett on Exxon Research and Engineering Company’s Technological Forecast: CO₂ Greenhouse Effect*, at 3 (Dec. 18, 1980) <https://www.documentcloud.org/documents/2805573-1980-Exxon-Memo-Summarizing-Current-Models-And.html>.

⁷³ *Id.* at 3-5.

the 1980 rate” and “investigat[ing] the market penetration of non-fossil fuel technologies.” The memo estimated that such non-fossil energy technologies “would need about 50 years to penetrate and achieve roughly half of the total [energy] market.”⁷⁴ The memo included the figure below, which illustrates both the global warming anticipated by Exxon and the company’s understanding that significant global warming would occur:

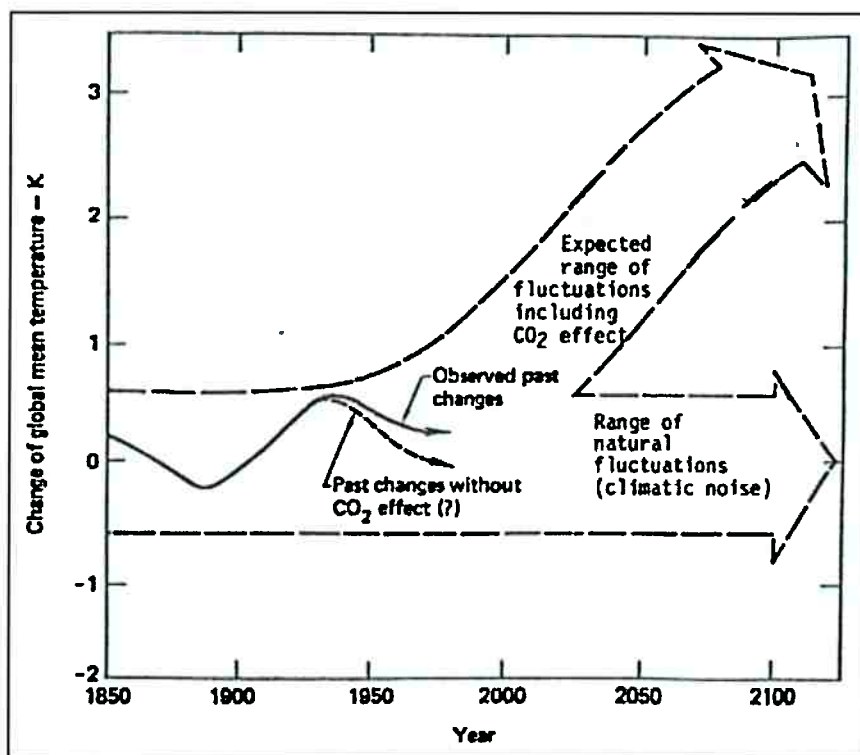


Figure 6: Future Global Warming Predicted Internally by Exxon in 1980⁷⁵

74. In February 1981, Exxon’s Contract Research Office prepared and distributed a “Scoping Study on CO₂” to the leadership of Exxon Research and Engineering Company.⁷⁶ The

⁷⁴ *Id.* at 5-6.

⁷⁵ *Id.* at 12. The company anticipated a doubling of carbon dioxide by around 2060 and that the oceans would delay the warming effect by a few decades, leading to approximately 3°C warming by the end of the century.

⁷⁶ G.H. Long, *Letter to P.J. Lucchesi et al. Regarding Atmospheric CO Scoping Study*, EXXON RSCH. AND ENGINEERING CO. (Feb. 5, 1981), <https://www.industrydocuments.ucsf.edu/docs/yxfl0228>.

study reviewed Exxon's carbon dioxide research and considered whether to expand its research on carbon dioxide or global warming further. It recommended against expanding those research areas because Exxon's current research programs were sufficient for achieving the company's goals of closely monitoring federal research, building credibility and public relations value, and developing in-house expertise regarding CO₂ and global warming, and noted that Exxon employees were actively monitoring and keeping the company apprised of outside research developments, including those on climate modeling and "CO₂-induced effects." In discussing "options for reducing CO₂ build-up in the atmosphere," the study noted that although capturing CO₂ from flue gases (*i.e.*, exhaust gas produced by combustion) was technologically possible, the cost was high, and "energy conservation or shifting to renewable energy sources[] represent[ed] the only options that might make sense."⁷⁷

75. Thus, by 1981, Exxon and other fossil fuel companies were actively monitoring all aspects of CO₂ and global warming research, and Exxon had recognized that a shift away from fossil fuels and towards renewable energy sources would be necessary to avoid a large CO₂ build-up in the atmosphere and resultant global warming.

76. An Exxon scientist warned colleagues in a 1981 internal memorandum that "future developments in global data gathering and analysis, along with advances in climate modeling, may provide strong evidence for a delayed CO₂ effect of a truly substantial magnitude," and that under certain circumstances it would be "very likely that we will unambiguously recognize the threat by the year 2000."⁷⁸ The memo expressed concern about the potential effects of unabated CO₂

⁷⁷ *Id.*

⁷⁸ R.W. Cohen, *Memorandum to W. Glass on Possible Emission Consequences of Fossil Fuel Consumption*, (Aug. 18, 1981), <http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emission-consequences-of-fossil-fuel-consumption>.

emissions from Defendants' fossil fuel products, saying, "it is distinctly possible that [Exxon Planning Division's] scenario will later produce effects which will indeed be catastrophic (at least for a substantial fraction of the world's population)."⁷⁹

77. In 1981, Exxon stated its position on the growth of carbon dioxide in the atmosphere. According to Exxon, growing fossil fuel consumption would lead atmospheric CO₂ levels to double, and doubling CO₂ levels would lead to a global average temperature rise of 3°C. This would cause "[m]ajor shifts in rainfall/agriculture" and "polar ice may melt."⁸⁰

78. In 1982, another report prepared for API by climate scientists recognized that the atmospheric CO₂ concentration had risen significantly compared to the concentration at the beginning of the industrial revolution. It went further, warning that "[s]uch a warming can have serious consequences for man's comfort and survival since patterns of aridity and rainfall can change, the height of the sea level can increase considerably and the world food supply can be affected."⁸¹ Exxon's own modeling research confirmed this.⁸² In a 1982 internal memorandum, Exxon's Corporate Research and Science Laboratories acknowledged a consensus "that a doubling of atmospheric CO₂ from its pre-industrial revolution value would result in an average global temperature rise of (3.0 ± 1.5)°C [5.4 ± 2.7 °F]" as well as "unanimous agreement in the scientific

⁷⁹ *Id.*

⁸⁰ Henry Shaw, *Memorandum to E.E. David on CO₂ Position Statement*, INSIDE CLIMATE NEWS (May 15, 1981) (footnote omitted), <https://insideclimatenews.org/wp-content/uploads/2015/11/Exxon-Position-on-CO2-1981.pdf>.

⁸¹ *Climate Models and CO₂ Warming: A Selective Review and Summary*, API., at 4 (Mar. 1982), <https://www.climatefiles.com/trade-group/american-petroleum-institute/api-climate-models-and-co2-warming-a-selective-review-and-summary/>.

⁸² See Roger W. Cohen, *Memorandum to A.M. Natkin Summarizing Climate Modeling and CO₂ Greenhouse Effect Research*, EXXON RSCH. AND ENGINEERING CO. (Sept. 2, 1982), <https://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modeling-and-co2-greenhouse-effect-research/>.

community that a temperature increase of this magnitude would bring about significant changes in the earth's climate[.]”⁸³

79. Also in 1982, Exxon's Environmental Affairs Manager distributed a primer on climate change to Exxon management; it was “restricted to Exxon personnel and not [to be] distributed externally.”⁸⁴ The primer explained the science behind climate change, confirmed fossil fuel combustion as a primary anthropogenic contributor to global warming, and estimated a CO₂ doubling by 2090 with a “Most Probable Temperature Increase” of more than 2°C over the 1979 level, as shown in the figure on the following page.⁸⁵ The report also warned that “disturbances in the existing global water distribution balance would have dramatic impact on soil moisture, and in turn, on agriculture,” and that the American Midwest would become much drier. It further warned of “potentially catastrophic effects that must be considered[.]”⁸⁶ It concluded that “[a]ll biological systems are likely to be affected,” and “the most severe economic effects could be on agriculture.”⁸⁷

⁸³ *Id.* at 1.

⁸⁴ M.B. Glaser, *Memorandum to R.W. Cohen et al. re CO₂ “Greenhouse” Effect*, EXXON RSCH. AND ENGINEERING CO., at 1 (Apr. 1, 1982), <https://insideclimatenews.org/wp-content/uploads/2015/09/1982-Exxon-Primer-on-CO2-Greenhouse-Effect.pdf>.

⁸⁵ *Id.* at 1, 7.

⁸⁶ *Id.* at 11.

⁸⁷ *Id.* at 14.

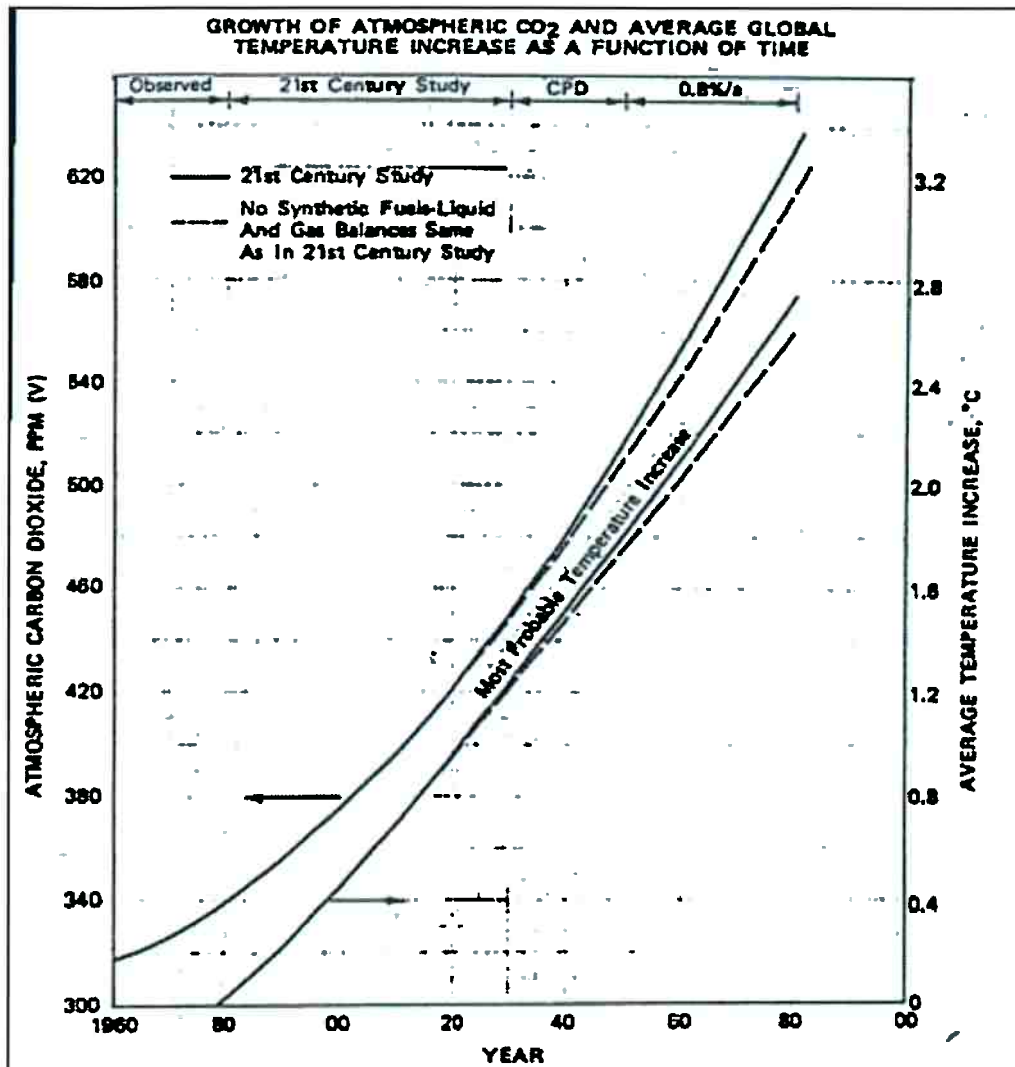


Figure 7: Exxon's Internal Prediction of Future CO2 Increase and Global Warming from 1982⁸⁸

80. The report recommended studying “soil erosion, salinization, or the collapse of irrigation systems” in order to understand how society might be affected and might respond to global warming, as well as “[h]ealth effects” and “stress associated with climate related famine or migration[.]”⁸⁹ The report estimated that undertaking “[s]ome adaptive measures” (but not all of

⁸⁸ *Id.* at 7. The company predicted a doubling of atmospheric carbon dioxide concentrations above preindustrial levels by around 2090 (left curve), with a temperature increase of more than 2° Cover the 1979 level (right curve).

⁸⁹ *Id.* at 14.

them) would cost “a few percent of the gross national product estimated in the middle of the next century” (gross national product was \$25,640 billion in 2022).⁹⁰ To avoid such impacts, the report discussed a scientific analysis which studied energy alternatives and requirements for introducing them into widespread use, and which recommended that “vigorous development of non-fossil energy sources be initiated as soon as possible.”⁹¹ The primer also noted that the analysis indicated that other greenhouse gases related to fossil fuel production, such as methane (which is a more powerful GHG than CO₂), “may significantly contribute to a global warming,” and that concerns over CO₂ would be reduced if fossil fuel use were decreased due to “high price, scarcity, [or] unavailability.”⁹² “Mitigation of the ‘greenhouse effect’ would require major reductions in fossil fuel combustion,” the primer stated.⁹³ The primer was widely distributed to Exxon leadership.

81. In September 1982, the Director of Exxon’s Theoretical and Mathematical Sciences Laboratory, Roger Cohen, wrote Alvin Natkin of Exxon’s Office of Science and Technology to summarize Exxon’s internal research on climate modeling.⁹⁴ Mr. Cohen reported:

[O]ver the past several years a clear scientific consensus has emerged regarding the expected climatic effects of increased atmospheric CO₂. The consensus is that a doubling of atmospheric CO₂ from its pre-industrial revolution value would result in an average global temperature rise of (3.0 ± 1.5) °C The temperature rise is predicted to be distributed nonuniformly over the earth, with above-average temperature elevations in the polar regions and relatively small increases near the equator. There is unanimous agreement in the scientific community that a temperature increase of this magnitude would bring about significant changes in the earth’s climate, including rainfall distribution and alterations in the biosphere. The time required for doubling of atmospheric CO₂ depends on future world consumption of fossil fuels. Current projections indicate that doubling will occur sometime in the latter half of the 21st century. The models predict that CO₂ climate

⁹⁰ *Id.*; see also *Gross National Product*, FED. RESERVE BANK OF ST. LOUIS <https://fred.stlouisfed.org/series/GNPA> (last visited Mar. 13, 2024).

⁹¹ Glaser, *supra* note 84 at 18.

⁹² *Id.* at 18, 29.

⁹³ *Id.* at 2.

⁹⁴ Cohen, *supra* note 82.

changes should be observable well before doubling. It is generally believed that the first CO₂-induced temperature increase will not be observable until around the year 2000.

Mr. Cohen described Exxon's own climate modeling experiments, reporting that they produced "a global averaged temperature increase that falls well within the range of the scientific consensus," which were "consistent with the published predictions of more complex climate models," and were "also in agreement with estimates of the global temperature distribution during a certain prehistoric period when the earth was much warmer than today." "In summary," Mr. Cohen wrote, "the results of our research are in accord with the scientific consensus on the effect of increased atmospheric CO₂ on climate."

82. Throughout the early 1980s, at Exxon's direction, Exxon climate scientist Henry Shaw forecasted emissions of CO₂ from fossil fuel use. Those estimates were incorporated into Exxon's twenty-first century energy projections and were distributed among Exxon's various divisions. Mr. Shaw's conclusions included an expectation that atmospheric CO₂ concentrations would double in 2090 per the Exxon model, with an attendant 2.3–5.6°F average global temperature increase.⁹⁵

83. During the 1980s, many Defendants formed their own research units focused on climate modeling. API, including the API CO₂ Task Force, provided a forum for the Fossil Fuel Defendants to share their research efforts and corroborate their findings related to anthropogenic GHG emissions.⁹⁶

⁹⁵ Neela Banerjee, *More Exxon Documents Show How Much It Knew About Climate 35 Years Ago*, INSIDE CLIMATE NEWS (Dec. 1, 2015), <https://insideclimatenews.org/news/01122015/documents-exxons-early-co2-position-senior-executives-engage-and-warming-forecast/>.

⁹⁶ Banerjee, *supra* note 66.

84. In 1987, Shell published an internal “brief for companies of the Royal Dutch/Shell Group,” which includes its U.S. based subsidiaries, titled “Air pollution: an oil industry perspective,” in which the company described the greenhouse effect, occurring “largely as a result of the burning of fossil fuels and deforestation.”⁹⁷ And it acknowledged the “concern that further increases in carbon dioxide levels could cause climatic changes, notably a rise in overall temperature, having major environmental, social and economic consequences.”⁹⁸

85. In 1988, the Shell Greenhouse Effect Working Group issued a confidential internal report, “The Greenhouse Effect,” which acknowledged global warming’s anthropogenic nature: “Man-made carbon dioxide, released into and accumulated in the atmosphere, is believed to warm the earth through the so-called greenhouse effect.” The authors also noted the burning of fossil fuels as a primary driver of CO₂ buildup and warned that warming could “create significant changes in sea level, ocean currents, precipitation patterns, regional temperature and weather.” They further pointed to the potential for “direct operational consequences” of sea level rise on “offshore installations, coastal facilities and operations (e.g., platforms, harbors, refineries, depots).”⁹⁹

86. The Shell report noted that “by the time the global warming becomes detectable it could be too late to take effective countermeasures to reduce the effects or even to stabilise the situation.” The authors mentioned the need to consider policy changes, noting that “the potential implications for the world are . . . so large that policy options need to be considered much earlier,”

⁹⁷ *Air pollution: an oil industry perspective*, SHELL BRIEFING SERV., at 4 (1987), <https://www.documentcloud.org/documents/24359057-shell-briefing-service-air-pollution-an-oil-industry-perspective-nr1-1987>.

⁹⁸ *Id.* at 5.

⁹⁹ *The Greenhouse Effect*, SHELL INTERNATIONALE PETROLEUM, at 1, 27 (May 1988) <https://www.documentcloud.org/documents/4411090-Document3.html#document/p9/a411239>.

and that research should be “directed more to the analysis of policy and energy options than to studies of what we will be facing exactly.”¹⁰⁰

87. Shell wrote a confidential report in 1989 that modeled CO₂ emissions under “SUSTAINABLE WORLD” and “GLOBAL MERCANTILISM” scenarios. The report noted that “SUSTAINABLE WORLD will not prevent the problem arising, but it could mitigate the problem,” and predicted that “GLOBAL MERCANTILISM” would “most dramatically change[]” agricultural patterns and “disrupt[] eco-systems.”¹⁰¹ It also predicted effects on humanity: “The potential refugee problem in GLOBAL MERCANTILISM could be unprecedented. . . . Conflicts would abound. Civilisation could prove a fragile thing. The logic of SUSTAINABLE WORLD is a society choosing to channel some investments into environmental maintenance against this contingency.”¹⁰²

88. Shell even predicted in 1989, in its confidential scenario planning, that minimizing emissions to prevent global warming would in turn spur innovation necessary to mitigate climate change. It stated that conditions surrounding emissions reduction “foster[] R&D, aiding innovation necessary to meet environmental standards.” Shell predicted that under this scenario, there would be innovation in structural materials to support “energy conservation and transport efficiency,” and advances in lubricants would support “efficiency rather than performance.”¹⁰³

¹⁰⁰ *Id.* at 1, 6.

¹⁰¹ *Id.* at 35-36.

¹⁰² Shell, *Scenarios: 1989–2010: Challenge and Response*, SHELL GRP. PLANNING, at 35-36 (1989), <https://www.documentcloud.org/documents/23735737-1989-oct-confidential-shell-group-planning-scenarios-1989-2010-challenge-and-response-disc-climate-refugees-and-shift-to-non-fossil-fuels>.

¹⁰³ See Shell UK, *UK Scenarios 1989* (Nov. 1989), <https://embed.documentcloud.org/documents/24359062-snippets-of-confidential-shell-uk-november-1989-scenarios>.

89. In 1991, a researcher for Exxon's subsidiary Imperial Oil stated to an audience of engineers that greenhouse gases were rising "due to the burning of fossil fuels. . . . Nobody disputes this fact."¹⁰⁴

90. The fossil fuel industry was at the forefront of carbon dioxide research for much of the latter half of the twentieth century. It worked with many of the field's top researchers to produce exceptionally sophisticated studies and models. For instance, in the mid-1990s, Shell began developing and employing scenarios to plan how the company could respond to various global forces in the future. In one scenario, published in a 1998 internal report, Shell paints an eerily prescient scene:

In 2010, a series of violent storms causes extensive damage to the eastern coast of the US. Although it is not clear whether the storms are caused by climate change, people are not willing to take further chances. The insurance industry refuses to accept liability, setting off a fierce debate over who is liable: the insurance industry, or the government. After all, two successive IPCC reports since 1995 have reinforced the human connection to climate change . . . Following the storms, a coalition of environmental NGOs brings a class-action suit against the US government and fossil-fuel companies on the grounds of neglecting what scientists (including their own) have been saying for years: that something must be done. A social reaction to the use of fossil fuels grows, and individuals become 'vigilante environmentalists' in the same way, a generation earlier, they had become fiercely anti-tobacco. Direct-action campaigns against companies escalate. Young consumers, especially, demand action.¹⁰⁵

91. Fossil fuel companies did not just consider climate change impacts in scenarios; they also incorporated those impacts in their on-the-ground planning. In the mid-1990s, Exxon, Shell, and Imperial Oil (Exxon) jointly undertook the Sable Offshore Energy Project in Nova Scotia. The project's own Environmental Impact Statement declared, "The impact of a global warming sea-level rise may be particularly significant in Nova Scotia. The long-term tide gauge

¹⁰⁴ Jerving et al. *supra* note 39.

¹⁰⁵ Shell, *Group Scenarios 1998–2020*, at 115, 118 (1998), <http://www.documentcloud.org/documents/4430277-27-1-Compiled.html>.

records at a number of locations along the N.S. coast have shown sea level has been rising over the past century. . . . For the design of coastal and offshore structures, an estimated rise in water level, due to global warming, of 0.5 m [1.64 feet] may be assumed for the proposed project life (25 years).”¹⁰⁶

92. Climate change research conducted by Defendants and their industry associations frequently acknowledged uncertainties in their climate modeling. Those uncertainties, however, were largely with respect to the magnitude and timing of climate impacts resulting from fossil fuel consumption, not with respect to whether significant changes would eventually occur. Defendants’ researchers and the researchers at their industry associations harbored little doubt that climate change was occurring and that fossil fuel products were, and are, the primary cause. For example, the language used by Chevron in the 1970 advertorial below (Figure 8) marketed a gasoline additive as one that “helps towards cleaner air” by reducing “unburned hydrocarbon and carbon monoxide exhaust emissions dramatically.”¹⁰⁷ The Chevron advertorial further recognized that “Clearly, this [additive] is a major step towards solving one of today’s most urgent problems.”¹⁰⁸

¹⁰⁶ *Sable Project Development Plan: Environmental Impact Statement*, EXXONMOBIL, at 4-77 (Feb. 1996), <https://web.archive.org/web/20151106083051/http://soep.com/about-the-project/development-plan-application/>.

¹⁰⁷ *New F-310 in Chevron gasolines turns dirty exhaust into extra mileage*, THE PHILA. INQUIRER AND DAILY NEWS (Dec. 1, 1970) <https://philly.newspapers.com/image/179958003>.

¹⁰⁸ *Id.*

**Remarkable gasoline breakthrough from the
research laboratories of Chevron Oil Company**



BEFORE

"We've now gone from a clean engine that runs well to a dirty engine that previously used to provide a decent fuel. The top started to do what they should not do exhaust completely obscured the car. This shows how exhaust conditions from dirty engines pollute the air and waste mileage."

Scott Carpenter
Research Director for
Chevron Laboratories



AFTER F-310

"The same test-after running on just the amount of Chevron with Formula F-310. Dirty exhaust emissions reduced sharply. The big engine about its dirty state. Chevron with F-310 here they make the extra mileage."

**New F-310 in Chevron gasolines
turns dirty exhaust into
extra mileage.**

Now, research scientists at Chevron Oil Company have achieved the most outstanding gasoline development in years! It's a new gasoline additive — Formula F-310[®] — that sharply reduces dirty exhaust from dirty engines. And helps toward cleaner air.

Tests conducted by Scott Research Laboratories, an independent research group, showed that Chevron gasoline with F-310 reduced unburned hydrocarbon and carbon monoxide exhaust emissions dramatically. Clearly, this is a major step toward solving one of today's most urgent problems.

F-310 also improves mileage, because dirty exhaust is really wasted gasoline. So F-310 literally keeps good mileage from going up in smoke.

How does an engine produce dirty exhaust in the first place?

As a car accumulates mileage, deposits build up. The amounts of gasoline and air fed into the engine get out of balance. This causes the engine to "run rich," wasting gasoline. As a result, excessive unburned hydrocarbons and carbon monoxide exhaust emissions go into the air. F-310 can correct this condition. Just six tankfuls can do the job.

Of course, the degree of improvement in your car will depend on how dirty your engine is. Not all engines are so dirty that they emit dirty smoke. But F-310 also keeps clean engines clean — another step toward cleaner air.

Formula F-310, Polyethylene Amine Gasoline Additive, is now available in Chevron gasolines wherever you see the F-310 sign.

Registered Trademark for Polyethylene Amine Additive 10070.



Chevron with F-310. There isn't a car on the road that shouldn't be using it.

CHEVRON OIL COMPANY

Figure 8: 1970 Chevron Advertorial in the *Philadelphia Inquirer*¹⁰⁹

93. Despite the overwhelming information about the threats to people and the planet posed by the continued unabated use of their fossil fuel products, the Fossil Fuel Defendants failed to act as they reasonably should have to avoid or mitigate those dire adverse impacts. The Fossil

¹⁰⁹ *Id.*

Fossil Fuel Defendants instead undertook affirmative efforts to promote their fossil fuel products as safe and cast doubt in the public's mind about the burgeoning scientific consensus on climate change, as described below. This was an abdication of the Fossil Fuel Defendants' responsibility to consumers and the public, including the County, to act on their knowledge of the reasonably foreseeable hazards of unabated production and consumption of their fossil fuel products.

C. Defendants Did Not Disclose Known Harms Associated with the Intended Use of Fossil Fuel Products, and Instead Affirmatively Concealed Those Harms by Engaging in a Campaign of Deception to Increase the Use of Those Products.

94. By 1988, Defendants had amassed a compelling body of knowledge about the role of anthropogenic greenhouse gases, specifically those emitted from the use of fossil fuel products, in causing climate change and its cascading impacts, including disruptions to the hydrologic cycle, extreme precipitation, extreme drought, increasing temperatures, and associated consequences for human communities and the environment.

95. On notice that their products were causing global climate change and dire effects on the planet, Defendants faced the decision whether to take steps to limit the damage that the use of fossil fuel products was causing and would continue to cause Earth's inhabitants, including the people of Bucks County. Before or thereafter, Defendants could and reasonably should have taken any number of steps to mitigate the damage caused by the use of fossil fuel products. Their own comments reveal an awareness of what steps should have been taken. In particular, Defendants should have warned civil society and Bucks County consumers of the dangers known to Defendants of the unabated use of fossil fuel products, and they could and should have taken reasonable steps to limit the greenhouse gases emitted by use of fossil fuel products. Instead, the actions necessary to mitigate the significant climate harms to the County were wrongfully delayed by Defendants' deception. Simply put, Defendants should have issued warnings commensurate

with their own understanding of the risks posed by the expected and intended uses of fossil fuel products.

96. Not only did Defendants fail to issue any warnings, but several key events during the period between 1988 and 1992 prompted them to change their tactics from general research and internal discussion on climate change to a public campaign aimed at deceiving consumers and the public, including the inhabitants of Bucks County. These key events included the following:

a. In 1988, NASA scientists confirmed that human activities were contributing to global warming. On June 23, 1988, NASA scientist James Hansen's presentation of this information to Congress engendered significant news coverage and publicity for the announcement, including coverage on the front page of *The New York Times*.¹¹⁰

b. On July 28, 1988, Senator Robert Stafford and four bipartisan co-sponsors introduced S. 2666, "The Global Environmental Protection Act," to regulate CO₂ and other greenhouse gases. Three more bipartisan bills to significantly reduce CO₂ pollution were introduced over the following ten weeks, and in August, U.S. Presidential candidate George H.W. Bush pledged that his presidency would combat the greenhouse effect with "the White House effect."¹¹¹ Political will in the United States to reduce anthropogenic GHG emissions and mitigate the harms associated with Defendants' fossil fuel products was gaining momentum.

c. In December 1988, the United Nations formed the IPCC, a scientific panel dedicated to providing the world's governments with an objective, scientific analysis of climate change and its environmental, political, and economic impacts.

¹¹⁰ See Peter C. Frumhoff et al., *The climate responsibilities of industrial carbon producers* 132 CLIMATIC CHANGE 157, 161 (2015), <http://dx.doi.org/10.1007/s10584-015-1472-5>.

¹¹¹ *The White House and the Greenhouse*, N.Y. TIMES (May 9, 1989), <http://www.nytimes.com/1989/05/09/opinion/the-white-house-and-the-greenhouse.html>.

d. In 1990, the IPCC published its First Assessment Report on anthropogenic climate change,¹¹² which concluded that (1) “there is a natural greenhouse effect which already keeps the Earth warmer than it would otherwise be,” and (2) that

emissions resulting from human activities are substantially increasing the atmospheric concentrations of the greenhouse gases: carbon dioxide, methane, chlorofluorocarbons (CFCs) and nitrous oxide. These increases will enhance the greenhouse effect, resulting on average in an additional warming of the Earth’s surface. The main greenhouse gas, water vapour, will increase in response to global warming and further enhance it.¹¹³

The IPCC reconfirmed those conclusions in a 1992 supplement to the First Assessment Report.¹¹⁴

e. The United Nations held the 1992 Earth Summit in Rio de Janeiro, Brazil, a major, newsworthy gathering of over 170 world governments, of which more than 100 sent their heads of state. The Summit resulted in the United Nations Framework Convention on Climate Change, an international environmental treaty providing protocols for future negotiations aimed at “stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”¹¹⁵

97. Defendants’ campaign of deception focused on concealing, discrediting, and/or misrepresenting information that tended to support restricting the use of fossil fuels and transitioning society to a lower-carbon future, which would thereby decrease demand for the Fossil Fuel Defendants’ products. The campaign enabled the Fossil Fuel Defendants to continue their business practice of exploiting fossil fuel reserves and concurrently externalize the social and

¹¹² See *Reports*, IPCC, <https://www.ipcc.ch/reports/> (last visited Mar. 13, 2024).

¹¹³ J.T. Houghton et al., *Climate Change: The IPCC Sci. Assessment*, IPCC (1990) <https://www.ipcc.ch/report/ar1/wg1/>.

¹¹⁴ *Climate Change: The 1990 and 1992 IPCC Assessments*, IPCC, at 52 (1992) <https://www.ipcc.ch/report/climate-change-the-ipcc-1990-and-1992-assessments>.

¹¹⁵ *United Nations Framework Convention on Climate Change*, UNITED NATIONS, at 4 (1992), <https://unfccc.int/resource/docs/convkp/conveng.pdf>.

environmental costs of their fossil fuel products. Those activities ran counter to Defendants' own prior recognition that the science of anthropogenic climate change was clear, and that action was needed to avoid or mitigate dire consequences to the planet and to communities like Bucks County's.

98. The Fossil Fuel Defendants—both on their own and jointly through industry and front groups such as API and the GCC—funded, conceived, planned, and carried out a sustained and widespread campaign of denial and disinformation about the existence of climate change and their products' contribution to it. The campaign included a long-term pattern of direct misrepresentations and material omissions, as well as a plan to influence consumers indirectly by affecting public opinion through the dissemination of misleading information to the press, government, and academia. Although the Fossil Fuel Defendants were competitors in the marketplace, they combined and collaborated with each other and with API on this public campaign to misdirect and stifle public knowledge in order to increase sales and protect profits. This effort included promoting hazardous fossil fuel products through advertising campaigns that failed to warn of the existential risks associated with the use of those products and that were designed to influence consumers to continue using the Fossil Fuel Defendants' fossil fuel products, irrespective of those products' damage to communities, like that of Bucks County, and the environment.

99. In a secretly-recorded video from 2021, an Exxon executive stated:

Did we aggressively fight against some of the science? Yes.
Did we join some of these shadow groups to work against some of the early efforts?
Yes, that's true. There's nothing illegal about that.
We were looking out for our investments. We were looking out for our shareholders."¹¹⁶

¹¹⁶ Jeff Brady, *Exxon Lobbyist Caught on Video Talking About Undermining Biden's Climate Push*, NPR (July 1, 2021, 11:37 AM ET), <https://www.npr.org/2021/07/01/1012138741/exxon-lobbyist-caught-on-video-talks-about-undermining-bidens-climate-push>.

100. For example, in 1988, Joseph Carlson, an Exxon public affairs manager, stated in an internal memo that Exxon was “providing leadership through API in developing the petroleum industry position” on “the greenhouse effect.”¹¹⁷ He then went on to describe the “Exxon Position,” which included two important messaging tenets, among others: (1) “[e]mphasiz[ing] the uncertainty in scientific conclusions regarding the potential enhanced Greenhouse effect”; and (2) “[r]esist[ing] the overstatement and sensationalization of potential Greenhouse effect which could lead to noneconomic development of nonfossil fuel resources.”¹¹⁸

101. Reflecting on his time as an Exxon consultant in the 1980s, Professor Martin Hoffert, a former New York University physicist who researched climate change, expressed regret over Exxon’s “climate science denial program campaign” in his sworn testimony before Congress:

[O]ur research [at Exxon] was consistent with findings of the United Nations Intergovernmental Panel on Climate Change on human impacts of fossil fuel burning, which is that they are increasingly having a perceptible influence on Earth’s climate. . . . If anything, adverse climate change from elevated CO₂ is proceeding faster than the average of the prior IPCC 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 Exxon’s front office launched around the time I stopped working as a consultant—but not collaborator—for Exxon. The advertisements that Exxon ran in major newspapers raising doubt about climate change were contradicted by the scientific work we had done and continue to do. Exxon was publicly promoting views that its own scientists knew were wrong, and we knew that because we were the major group working on this.¹¹⁹

¹¹⁷ Joseph M. Carlson, *Memorandum re The Greenhouse Effect*, at 7 (Aug. 3, 1988) <https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-Effect.pdf>.

¹¹⁸ *Id.* at 7-8.

¹¹⁹ *Examining the Oil Industry’s Efforts to Suppress the Truth About Climate Change: Hearing Before the H. Comm. on Oversight and Reform, Subcomm. on Civil Rights and Civil Liberties*, 116th Cong., 1st Sess., at 7-8 (Oct. 23, 2019) (statement of Martin Hoffert, Former Exxon Consultant), <https://www.congress.gov/event/116th-congress/house-event/110126>.

102. “Shell shaped a series of influential industry-backed publications that downplayed or omitted key risks; emphasized scientific uncertainties; and pushed for more fossil fuels, particularly coal.”¹²⁰ In 1992, Shell put out a publication for wide external distribution on what it called the “Basic Scientific Facts” of the “Potential Augmented Greenhouse Effect,” in which it downplayed the scientific consensus by referring to the “relatively few established scientific fundamentals.” It also misleadingly suggested that a “particular cause” of global warming was “difficult” to identify, despite having identified the use of their products as a significant contributor in the previous decade.¹²¹ For example, in 1985, a Shell UK environmental scientist published an article laying out the scientific fact that “[b]urning of fossil fuels which have taken millions of years to form has effectively upset the balance [of the Carbon Cycle] leading to an increase in CO₂ in the atmosphere.”¹²²

103. A 1994 Shell report entitled “The Enhanced Greenhouse Effect: A Review of the Scientific Aspects” by Royal Dutch Shell’s Peter Langcake stands in stark contrast to the company’s 1988 report on the same topic. Whereas before the authors had recommended consideration of policy solutions early on, Mr. Langcake warned of the potentially dramatic “economic effects of ill-advised policy measures.” While the report recognized the IPCC conclusions as the mainstream view, Mr. Langcake still emphasized scientific uncertainty, noting,

¹²⁰ Matthew Green, *Lost Decade: How Shell Downplayed Early Warnings Over Climate Change*, DESMOG (Mar. 31, 2023, 21:00 PDT), <https://www.desmog.com/2023/03/31/lost-decade-how-shell-downplayed-early-warnings-over-climate-change/>.

¹²¹ See Jan Kuyper, *Shell Group Planning, Business Environment Occasional Paper, Potential Augmented Greenhouse Effect: Basic Scientific Facts* (Sept. 1992), <https://www.documentcloud.org/documents/24359060-1992-internal-shell-group-planning-report-potential-augmented-greenhouse-effect-and-depletion-of-the-ozone-layer>.

¹²² T.G. Wilkinson, *Why and How to Control Energy Pollution: Can Harmonisation Work?*, 8 CONSERVATION & RECYCLING 7, 19 (1985), <https://www.documentcloud.org/documents/24359067-1985-03-why-and-how-to-control-energy-pollution-by-tg-wilkinson-shell>.

for example, that “the postulated link between any observed temperature rise and human activities has to be seen in relation to natural climate variability, which is still largely unpredictable.” The Shell position is stated clearly in the report: “Scientific uncertainty and the evolution of energy systems indicate that policies to curb greenhouse gas emissions beyond ‘no regrets’ measures could be premature, divert resources from more pressing needs and further distort markets.”¹²³ Shell published further reports in 1995 titled “Is Climate Change Occurring Already?” and “Climate of Concern,” both of which emphasized uncertainty surrounding the greenhouse effect that Shell’s own internal analyses had rejected.¹²⁴

104. In 1996, Exxon released a publication called “Global Warming: Who’s Right? Facts about a debate that’s turned up more questions than answers.” In the publication’s preface, Exxon CEO Lee Raymond inaccurately stated that “taking drastic action immediately is unnecessary since many scientists agree there’s ample time to better understand the climate system.” The publication described the greenhouse effect as “unquestionably real and definitely a good thing,” while ignoring the severe consequences that would result from the influence of the increased CO₂ concentration on the Earth’s climate. Instead, it characterized the greenhouse effect as simply “what makes the earth’s atmosphere livable.” Directly contradicting Exxon’s own internal knowledge and peer-reviewed science, the publication ascribed the rise in temperature since the late nineteenth century to “natural fluctuations that occur over long periods of time” rather than to the anthropogenic emissions that Exxon itself and other scientists had confirmed

¹²³ P. Langcake, *The Enhanced Greenhouse Effect: A Review of the Scientific Aspects*, SHELL INTERNATIONALE PETROLEUM, at 1, 9, 14 (updated Dec. 1994), <https://www.documentcloud.org/documents/4411099-Document11.html#document/p15/a411511>.

¹²⁴ *A Crack in the Shell: New Documents Expose a Hidden Climate History*, CTR. FOR INT’L ENV’T LAW, at 10-11 (2018), <https://www.ciel.org/wp-content/uploads/2018/04/A-Crack-in-the-Shell-April-2018.pdf>.

were responsible. The publication also falsely challenged the computer models that projected the future impacts of unabated fossil fuel product consumption, including those developed by Exxon's own employees, as having been "proved to be inaccurate." The publication contradicted the numerous reports prepared by and circulated among Exxon's staff, and by API, stating that "the indications are that a warmer world would be far more benign than many imagine . . . moderate warming would reduce mortality rates in the U.S., so a slightly warmer climate would be more healthful." Mr. Raymond concluded his preface by attacking advocates for limiting the use of his company's fossil fuel products as "drawing on bad science, faulty logic or unrealistic assumptions"—despite the important role that Exxon's own scientists had played in compiling those same scientific underpinnings.¹²⁵

105. API published an extensive report in the same year warning against concern over CO₂ buildup and any need to curb consumption. The introduction stated that "there is no persuasive basis for forcing Americans to dramatically change their lifestyles to use less oil."¹²⁶ The authors discouraged the further development of certain alternative energy sources, writing that "government agencies have advocated the increased use of ethanol and the electric car, without the facts to support the assertion that either is superior to existing fuels and technologies" and that "[p]olicies that mandate replacing oil with specific alternative fuel technologies freeze progress at the current level of technology, and reduce the chance that innovation will develop better solutions."¹²⁷ The paper also denied the human connection to climate change, by falsely stating that "no conclusive—or even strongly suggestive—scientific evidence exists that human activities

¹²⁵ *Global Warming: Who's Right?*, EXXON CORP., at 3, 5-7, (1996) <https://www.documentcloud.org/documents/2805542-Exxon-Global-Warming-Whos-Right.html>.

¹²⁶ Sally Gentile et al., *Reinventing Energy: Making the Right Choices*, API, at 2, 11, 63, 79, (1996) <https://www.documentcloud.org/documents/4224133-Reinventing-Energy>.

¹²⁷ *Id.* at 2, 11.

are significantly affecting sea levels, rainfall, surface temperatures or the intensity and frequency of storms.”¹²⁸ The report’s message was false but clear: “facts don’t support the arguments for restraining oil use.”¹²⁹

106. In a speech presented at the World Petroleum Congress in Beijing in 1997 at which many of the Defendants were present, Exxon CEO Lee Raymond reiterated those views. This time, he presented a false dichotomy between stable energy markets and abatement of the marketing, promotion, and sale of fossil fuel products Defendants knew to be hazardous. He stated:

[S]ome people . . . argue that we should drastically curtail our use of fossil fuels for environmental reasons . . . my belief [is] that such proposals are neither prudent nor practical. With no readily available economic alternatives on the horizon, fossil fuels will continue to supply most of the world’s and this region’s energy for the foreseeable future.

. . . .

Governments also need to provide a stable investment climate They should avoid the temptation to intervene in energy markets in ways that give advantage to one competitor over another—or one fuel over another.

. . . .

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

. . . .

[L]et’s agree there’s a lot we really don’t know about how climate will change in the 21st century and beyond It is highly unlikely that the temperature in the middle of the next century will be significantly affected whether policies are enacted now or 20 years from now. . . . It’s bad public policy to impose very costly regulations and restrictions when their need has yet to be proven.¹³⁰

¹²⁸ *Id.* at 63.

¹²⁹ *Id.* at 79.

¹³⁰ Lee R. Raymond, *Energy – key to growth and a better environment for Asia-Pacific nations*, WORLD PETROLEUM CONG. (Oct. 13, 1997),

107. Imperial Oil (Exxon) CEO Robert Peterson falsely denied the established connection between the Fossil Fuel Defendants' fossil fuel products and anthropogenic climate change in an essay in the Summer 1998 issue of Imperial Oil's magazine, "Imperial Oil Review":

[Climate change] has absolutely nothing to do with pollution and air quality. Carbon dioxide is not a pollutant but an essential ingredient of life on this planet. . . . [T]he question of whether or not the trapping of "greenhouse" gases will result in the planet's getting warmer . . . has no connection whatsoever with our day-to-day weather.

. . . .

There is absolutely no agreement among climatologists on whether or not the planet is getting warmer or, if it is, on whether the warming is the result of man-made factors or natural variations in the climate. . . . I feel very safe in saying that the view that burning fossil fuels will result in global climate change remains an unproved hypothesis.¹³¹

108. Mobil (Exxon) paid for a series of "advertorials," advertisements located in the editorial section of *The New York Times* and meant to look like editorials rather than paid advertisements. Many of those advertorials communicated doubt about the reality and severity of human-caused climate change, even as industry scientists contemporaneously reiterated that climate change was real, serious, and caused by human activity. The advertisements addressed various aspects of the public discussion of climate change and sought to undermine the justifications for tackling GHG emissions as unsettled science. The 1997 advertorial on the following page argued that economic analysis of emissions restrictions was faulty and inconclusive and therefore provided a justification for delaying action on climate change.

<https://assets.documentcloud.org/documents/2840902/1997-Lee-Raymond-Speech-at-China-World-Petroleum.pdf>.

¹³¹ Robert Peterson, *A Cleaner Canada*, IMPERIAL OIL REV., at 29 (1998) <https://www.documentcloud.org/documents/6555577-1998-Robert-PetersonA-Cleaner-Canada-Imperial.html>.

like race, But when we no longer allow those choices, both civility and common sense will have been diminished. □

who was dragged from his sister's car by police officers and shot in the face at point-blank range. The cops

who have the power to do something about those officers, but choose not to. □

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When facts don't square with the theory, throw out the facts

 That seems to characterize the administration's attitude on two of its own studies which show that international efforts to curb global warming could spark a big run-up in energy prices.

For months, the administration—playing its cards close to the vest—has promised to provide details of the emission reduction plan it will put on the table at the climate change meeting in Kyoto, Japan, later this year. It also promised to evaluate the economics of that policy and measure its impact. Those results are important because the proposals submitted by other countries thus far would be disruptive and costly to the U.S. economy.

Yet, when the results from its own economic models were finally generated, the administration started distancing itself from the findings and models that produced them. The administration's top economic advisor said that economic models can't provide a "definitive answer" on the impact of controlling emissions. The effort, she said, was "futile." At best, the models can only provide a "range of potential impacts."

Frankly, we're puzzled. The White House has promised to lay the economic facts before the public. Yet, the administration's top advisor said such an analysis won't be based on models and it will "preclude . . . detailed numbers." If you don't provide numbers and don't rely on models, what kind of rigorous economic examination can Congress and the public expect?

We're also puzzled by ambivalence over models. The administration downplays the utility of economic models to forecast cost impacts 10–15 years from now, yet its negotiators accept as gospel the 50–100-year predictions of global warming that have been generated by climate models—many of which have been criticized as seriously flawed.

The second study, conducted by Argonne National Laboratory under a contract with the Energy Department, examined what would


happen if the U.S. had to commit to higher energy prices under the emission reduction plans that several nations had advanced last year. Such increases, the report concluded, would result in "significant reductions in output and employment" in six industries—aluminum, cement, chemical, paper and pulp, petroleum refining and steel.

Hit hardest, the study noted, would be the chemical industry, with estimates that up to 30 percent of U.S. chemical manufacturing capacity would move offshore to developing countries. Job losses could amount to some 200,000 in that industry, with another 100,000 in the steel sector. And despite the substantial loss of U.S. jobs and manufacturing capacity, the net emission reduction could be insignificant since developing countries will not be bound by the emission targets of a global warming treaty.

Downplaying Argonne's findings, the Energy Department noted that the study used outdated energy prices (mid-1996), didn't reflect the gains that would come from international emissions trading and failed to factor in the benefits of accelerated developments in energy efficiency and low-carbon technologies.

What it failed to mention is just what those new technologies are and when we can expect their benefits to kick in. As for emissions trading, many economists have theorized about the role they could play in reducing emissions, but few have grappled with the practicality of implementing and policing such a scheme.

We applaud the goals the U.S. wants to achieve in these upcoming negotiations—namely, that a final agreement must be "flexible, cost-effective, realistic, achievable and ultimately global in scope." But until we see the details of the administration's policy, we are concerned that plans are being developed in the absence of rigorous economic analysis. Too much is at stake to simply ignore facts that don't square with preconceived theories.



Mobil The energy to make a difference.

http://www.mobil.com ©1997 Mobil Corporation

Figure 9: 1997 Mobil Advertorial¹³²

¹³² *When Facts Don't Square with the Theory, Throw Out the Facts*, N.Y. TIMES (Aug. 14, 1997), <https://www.documentcloud.org/documents/705550-mob-nyt-1997-aug-14-whenfactsdonsquare.html>.

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 "pseudo-scientific arguments or false and non-relevant data."

The Heidelberg Appeal was issued initially by some 284 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 temperature 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

Figure 10: Mobil Advertorial¹³³

110. The advertorial quotes Fred Singer, a physicist who tobacco companies funded to promote his claim that second-hand smoke did not cause cancer.

111. The advertisement also presents Robert C. Balling as another neutral scientific expert. Yet five years after Mobil ran this advertorial, Mr. Balling acknowledged that he had received \$408,000 in funding from the fossil fuel industry, including from ExxonMobil.¹³⁴

112. The advertorial misleadingly portrays the “Heidelberg Appeal” as evidence that there was insufficient scientific data for action on climate change. In fact, the Heidelberg Appeal did not discuss climate change or the validity of scientific reasoning or evidence showing that climate change is happening, is human-caused, and will cause severe environmental damage.¹³⁵

113. Many other Exxon and Mobil advertorials falsely or misleadingly characterized the state of climate science research to the readership of *The New York Times*’s op-ed page. A sample of misleading or outright untruthful statements in paid advertisements that resembled op-eds includes the following:

“We don’t know enough about the factors that affect global warming and the degree to which—if any—that man-made emissions (namely, carbon dioxide) contribute to increases in Earth’s temperature.”¹³⁶

“[G]reenhouse-gas emissions, which have a warming effect, are offset by another combustion product—particulates—which leads to cooling.”¹³⁷

¹³⁴ *Determination 18*, Minn. News Council (Apr. 16, 1998), http://www.mtn.org/~newscncl/complaints/hearings/det_118.html.

¹³⁵ *Heidelberg Appeal*, DESMOG, desmog.com/heidelberg-appeal/ (last visited Mar. 13, 2024).

¹³⁶ *Climate change: a prudent approach*, N.Y. TIMES (Nov. 13, 1997) <https://www.documentcloud.org/documents/705548-mob-nyt-1997-11-13-climateprudentapproach.html>.

¹³⁷ *Less heat, more light on climate change*, N.Y. TIMES (July 18, 1996) <https://www.documentcloud.org/documents/705544-mob-nyt-1996-jul-18-lessheatmorelight.html>.

“Even after two decades of progress, climatologists are still uncertain how—or even if—the buildup of man-made greenhouse gases is linked to global warming.”¹³⁸

“[I]t is impossible for scientists to attribute the recent small surface temperature increase to human causes.”¹³⁹

114. A quantitative analysis of Exxon’s climate communications between 1989 and 2004 found that, while 83 percent of the company’s peer-reviewed papers and 80 percent of its internal documents acknowledged the reality and human origins of climate change, 81 percent of its advertorials communicated doubt about those conclusions.¹⁴⁰ Based on this “statistically significant” discrepancy between internal and external communications, the authors concluded that “ExxonMobil misled the public.”¹⁴¹

115. The Fossil Fuel Defendants’ public campaign of deception was accomplished individually, through API, and through various other trade associations and front groups. This campaign was mounted in order to allow Fossil Fuel Defendants to continue wrongfully promoting and marketing their fossil fuel products, despite their own knowledge and the growing national and international scientific consensus about the hazards of doing so.

116. One of the key organizations formed by the Fossil Fuel Defendants to coordinate the fossil fuel industry’s response to the world’s growing awareness of climate change was the International Petroleum Industry Environmental Conservation Association (“IPIECA”). In 1988,

¹³⁸ *Climate change: where we come out*, N.Y. TIMES (Nov. 20, 1997) <https://www.documentcloud.org/documents/705549-mob-nyt-1997-11-20-ccwherewecomeout.html> (emphasis in original).

¹³⁹ *Unsettled Science*, N.Y. TIMES, (Mar. 23, 2000), <https://www.documentcloud.org/documents/705605-xom-nyt-2000-3-23-unsettledscience>.

¹⁴⁰ Geoffrey Supran & Naomi Oreskes, *Addendum to ‘Assessing ExxonMobil’s climate change communications (1977–2014)’*, 12 ENV’T RSCH. LETTERS 084019, at 8 (2020) <https://iopscience.iop.org/article/10.1088/1748-9326/aa815f/pdf>.

¹⁴¹ *Id.* at 15.

IPIECA formed a “Working Group on Global Climate Change” chaired by Duane LeVine, Exxon’s manager for science and strategy development. The Working Group also included Brian Flannery from Exxon, Leonard Bernstein from Mobil, Terry Yosie from API, and representatives from BP, Shell, and Texaco (Chevron). In 1990, the Working Group sent a strategy memo created by Mr. LeVine to IPIECA member companies. This memo explained that, to forestall a global shift away from burning fossil fuels for energy, the industry should emphasize uncertainties in climate science, call for further research, and promote industry-friendly policies that would leave the fossil fuel business intact.¹⁴²

117. In 1991, the Information Council for the Environment (“ICE”), whose members included Defendants, launched a national climate change science denial campaign with full-page newspaper advertisements, radio commercials, a public relations tour schedule, “mailers,” and research tools to measure campaign success. The campaign’s top strategy was to “[r]eposition global warming as theory (not fact).” Its target audiences included younger, lower-income women who “are likely to be ‘green’ consumers, to believe the earth is warming, and to think the problem is serious . . . These women are good targets for magazine advertisements.”¹⁴³

118. The campaign planned to “use a spokesman from the scientific community” based on consumer research that found “technical and expert sources have the highest credibility among a broad range of members of the public.”¹⁴⁴

¹⁴² Christopher Bonneuil et al., *Early warnings and emerging accountability: Total’s responses to global warming, 1971-2021*, 71 GLOBAL ENV’T. CHANGE 102386, at 5 (Nov. 2021) <https://www.sciencedirect.com/science/article/pii/S0959378021001655>.

¹⁴³ *Climate Deception Dossier*, INFO. COUNCIL FOR THE ENV’T (May 15, 1991), http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf.

¹⁴⁴ *Id.*

119. The following images are examples of ICE-funded print advertisements challenging the validity of climate science and intended to obscure the scientific consensus on anthropogenic climate change.¹⁴⁵



Figure 11: Information Council for the Environment Advertisements¹⁴⁶

120. The GCC, on behalf of the Fossil Fuel Defendants and other fossil fuel companies, also funded deceptive advertising campaigns and distributed misleading material to generate public uncertainty around the climate debate, seeking to prevent U.S. adoption of a 1997 international agreement to limit and reduce GHG emissions known as the Kyoto Protocol and thereby inflate the market for fossil fuels, despite the leading role that the U.S. had played in negotiating the Protocol.¹⁴⁷ The GCC’s position on climate change contradicted decades of its

¹⁴⁵ *Id.* at 47-49.

¹⁴⁶ *Id.*

¹⁴⁷ Robert J. Brulle, *Advocating inaction: a historical analysis of the Global Climate Coalition*, ENV’T POLITICS, at 2, 13-14 (2022) <https://cssn.org/wp-content/uploads/2022/04/GCC-Paper.pdf> (Mr. Brulle notes in particular the effectiveness of the GCC in opposing the Kyoto protocol: “In one final compliment, the GCC’s effectiveness was acknowledged in a meeting with White House staff on 21 June 2001. The talking points for that meeting noted that ‘POTUS rejected Kyoto, in part, based on input from you.’”).

members' internal scientific reports by asserting that natural trends, not human combustion of fossil fuels, were responsible for rising global temperatures:

The GCC believes that the preponderance of the evidence indicates that most, if not all, of the observed warming is part of a natural warming trend which began approximately 400 years ago. If there is an anthropogenic component to this observed warming, the GCC believes that it must be very small and must be superimposed on a much larger natural warming trend.¹⁴⁸

121. The GCC's promotion of overt climate change skepticism also contravened its internal assessment that such theories lacked scientific support. Despite an internal primer acknowledging that various "contrarian theories" (*i.e.*, climate change skepticism) "do not offer convincing arguments against the conventional model of greenhouse gas emission-induced climate change,"¹⁴⁹ the GCC excluded this section from the publicly released version of the backgrounder,¹⁵⁰ and instead funded and promoted some of those same contrarian theories. Between 1989 and 1998, the GCC spent \$13 million on advertisements as part of a campaign to obfuscate the facts and the science relating to climate change and undermine the public's trust in

¹⁴⁸ *Global Climate Coalition: An Overview*, GLOB. CLIMATE COAL., at 2 (1996) <https://www.documentcloud.org/documents/5453339-1996-GCC-Overview-and-Reports>.

¹⁴⁹ Gregory J. Dana, *GLOBAL CLIMATE COALITION (GCC) – Primer on Climate Change Science – Final Draft*, ASSOC. OF INT'L AUTO. MFRS. (Jan. 18, 1996) <http://www.webcitation.org/6FyqHawb9> (providing a "Primer on Climate Change Science" developed by the GCC).

¹⁵⁰ See Gregory J. Dana, *GLOBAL CLIMATE COALITION (GCC) – Science and Technology Assessment Committee (STAC) Meeting – February 15, 1996 – Summary*, ASSOC. OF INT'L AUTO. MFRS., at 7 (Feb. 27, 1996) <https://www.documentcloud.org/documents/5631461-AIAM-050835.html> ("Most suggestions [at the STAC meeting] had been to drop the 'contrarian' part. This idea was accepted and that portion of the paper will be dropped.").

climate scientists.¹⁵¹ Ultimately, the GCC's efforts "created an influential discourse of climate skepticism in the U.S. that continues to be an influential political current."¹⁵²

122. For example, in a 1994 report, the GCC stated that "observations have not yet confirmed evidence of global warming that can be attributed to human activities," and that "[t]he claim that serious impacts from climate change have occurred or will occur in the future simply has not been proven," so "there is no basis for the design of effective policy actions that would eliminate the potential for climate change."¹⁵³ In 1995, the GCC published a booklet called "Climate Change: Your Passport to the Facts," which stated, "While many warnings have reached the popular press about the consequences of a potential man-made warming of the Earth's atmosphere during the next 100 years, there remains no scientific evidence that such a dangerous warming will actually occur."¹⁵⁴

123. In 1997, William O'Keefe, chairman of the GCC and executive vice president of API, made the following false statement in a *Washington Post* op-ed: "Climate scientists don't say that burning oil, gas, and coal is steadily warming the earth."¹⁵⁵ This statement contradicted the

¹⁵¹ Wendy E. Franz, *Science, skeptics and non-state actors in the greenhouse*, BELFER CTR. FOR SCI. & INT'L AFFS., at 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>.

¹⁵² Marten Boon, *A Climate of Change? The Oil Industry and Decarbonization in Historical Perspective*, 93 BUS. HIST. REV. 101, 110 (2019).

¹⁵³ *Issues and Options: Potential Global Climate Change*, GLOB. CLIMATE COAL. at preface, 43 (Apr. 1994) <https://www.documentcloud.org/documents/5628164-Potential-Global-Climate-Change-Issues-and-Options>.

¹⁵⁴ *Climate Change: Your Passport to the Facts*, GLOBAL CLIMATE COAL. (1995) <https://www.documentcloud.org/documents/5628109-Climate-Change-Your-Passport-to-the-Facts>.

¹⁵⁵ William F. O'Keefe, *A Climate Policy*, WASH. POST (July 4, 1997), <https://www.washingtonpost.com/archive/opinions/1997/07/05/a-climate-policy/6a11899a-c020-4d59-a185-b0e7eebf19cc/>.

established scientific consensus as well as Defendants' own knowledge. Yet Defendants did nothing to correct the public record, and instead continued to fund the GCC's anti-scientific climate skepticism.

124. In addition to publicly spreading false and misleading information about the climate science consensus, the GCC also sought to undermine credible climate science from within the IPCC. After becoming a reviewer of IPCC's Second Assessment Report in 1996, the GCC used its position to accuse the lead author of a key chapter in the Report of modifying the chapter's conclusions. The GCC claimed that the author, climatologist Ben Santer, had engaged in "scientific cleansing" that "understate[d] uncertainties about climate change causes and effects . . . to increase the apparent scientific support for attribution of changes to climate to human activities."¹⁵⁶ The GCC also arranged to spread the accusation among legislators, reporters, and scientists, and similar accusations were published in a *Wall Street Journal* op-ed.¹⁵⁷ This effort "was widely perceived to be an attempt on the part of the GCC to undermine the credibility of the IPCC."¹⁵⁸

125. In the late 1990s, Defendants shifted away from openly denying anthropogenic warming and toward peddling a subtler form of climate change skepticism. Defendants became alarmed by the enormous legal judgments the tobacco industry then faced as a result of decades spent publicly denying the health risks of smoking cigarettes; a Shell employee explained that the company "didn't want to fall into the same trap as the tobacco companies who have become

¹⁵⁶ Franz, *supra* note 151 at 14.

¹⁵⁷ Naomi Oreskes & Erik M. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*, 207 (Bloomsbury Press, 1st ed. 2011); see also S. Fred Singer, *Climate Change and Consensus*, 271 SCI. 581 (Feb. 2, 1996); Frederick Seitz, *A Major Deception on Global Warming*, THE WALL STREET J. (June 12, 1996, 12:01 AM ET) <https://www.wsj.com/articles/SB834512411338954000>.

¹⁵⁸ Franz, *supra* note 151 at 15.

trapped in all their lies.”¹⁵⁹ Defendants began to shift their communications strategy, claiming they had accepted climate science all along.¹⁶⁰ Several large fossil fuel companies, including BP and Shell, left the GCC (although all the Fossil Fuel Defendants remained members of API).¹⁶¹ At this point in time, Defendants publicly claimed to accept the reality of anthropogenic climate change, while insisting that the costs of climate action were unacceptably high in light of the yet-unresolved uncertainties in climate science—especially around the severity and timeframe of future climate impacts. Reflecting this new strategy, API Executive Vice President (and GCC chairman) William O’Keefe announced in November 1998 that “[w]e are committed to being part of the solution to the climate risk and to active participation in the debate to forge a clear, defensible policy.” “[T]he debate is not about action or inaction,” Mr. O’Keefe wrote, “but what set of actions is consistent with our state of knowledge and economic well-being.”¹⁶² Rather than publicly deny the need to address climate change, Defendants’ new communications strategy sought to forestall policy actions that might decrease consumption of fossil fuel products.

126. Despite their public about-face, Defendants surreptitiously continued to organize and fund programs designed to deceive the public about the weight and veracity of the climate science consensus. In 1998, API convened a Global Climate Science Communications Team (“GCSCCT”) whose members included Exxon’s senior environmental lobbyist, an API public relations representative, and a federal relations representative from Chevron. There were no climate scientists on the GCSCCT. Steve Milloy and his organization, The Advancement of Sound Science Coalition (“TASSC”), were founding members of the GCSCCT. TASSC was an

¹⁵⁹ Nathaneil Rich, *Losing Earth: A Recent History*, 186 (MCD 1st ed., 2020).

¹⁶⁰ Bonneuil, *supra* note 142 at 6.

¹⁶¹ *Id.*

¹⁶² *API: U.S. oil industry recognizes climate change risk*, OIL & GAS J. (Nov. 2, 1998) <https://www.ogj.com/home/article/17225896/api-us-oil-industry-recognizes-climate-change-risk>.

organization created by the tobacco industry to give the impression of a “grassroots” movement, which aimed to sow uncertainty by discrediting the scientific link between exposure to second-hand cigarette smoke and increased rates of cancer and heart disease. Philip Morris had launched TASSC on the advice of its public relations firm, which advised Philip Morris that the tobacco company itself would not be a credible voice on the issue of smoking and public health. TASSC also became a front group for the fossil fuel industry, using the same tactics it had honed while operating on behalf of tobacco companies to spread doubt about climate science.

127. The GCSCT continued Defendants’ efforts to deceive the public about the dangers of fossil fuel use by launching a campaign in 1998 to convince the public that the scientific basis for climate change was in doubt. The GCSCT “developed an action plan to inform the American public that science does not support the precipitous actions Kyoto would dictate [*i.e.*, reducing use of fossil fuels].” The multi-million-dollar, multi-year “Global Climate Science Communications Action Plan” sought, among other things, to do the following: (a) “[d]evelop and implement a national media relations program to inform the media about uncertainties in climate science”; (b) “to generate national, regional and local media coverage on the scientific uncertainties”; (c) “[d]evelop a global climate science information kit for media including peer-reviewed papers that undercut the ‘conventional wisdom’ on climate science”; (d) “[p]roduce . . . a steady stream of op-ed columns”; and (e) “[d]evelop and implement a direct outreach program to inform and educate members of Congress, state officials, . . . and school teachers/students about uncertainties in climate science” to “begin to erect a barrier against further efforts to impose Kyoto [Protocol]-like measures in the future.”¹⁶³

¹⁶³ Joe Walker, *Draft Global Climate Science Communications Plan*, at 4-9 (Apr. 3, 1998) <https://assets.documentcloud.org/documents/784572/api-global-climate-science-communications-plan.pdf>.

128. Exxon, Chevron, and API directed and contributed to the development of the plan, which plainly set forth the criteria by which the contributors would know when their efforts to manufacture doubt had been successful. “Victory,” they wrote, “will be achieved when . . . average citizens ‘understand’ (recognize) uncertainties in climate science” and “recognition of uncertainties becomes part of the ‘conventional wisdom.’”¹⁶⁴ In other words, the plan was part of Defendants’ goal to use disinformation to plant doubt about the reality of climate change in an effort to maintain consumer demand for their fossil fuel products and their large profits.

129. Soon after, API distributed a memo to its members illuminating API’s and the Fossil Fuel Defendants’ concern over the potential regulation of their fossil fuel products: “Climate is at the center of the industry’s business interests. Policies limiting carbon emissions reduce petroleum product use. That is why it is API’s highest priority issue and defined as ‘strategic.’”¹⁶⁵ The API memo stressed many of the strategies that Defendants collectively utilized to combat the perception of fossil fuel products as hazardous. These strategies included the following:

a. Influencing the tenor of the climate change “debate” as a means to establish that greenhouse gas reduction policies like the Kyoto Protocol were not necessary to responsibly address climate change;

b. Maintaining strong working relationships between government regulators and communications-oriented organizations like the GCC, the Heartland Institute, and other groups carrying Defendants’ message minimizing the hazards of the unabated use of fossil fuel products and opposing regulation thereof; and

¹⁶⁴ *Id.* at 4.

¹⁶⁵ *Allegations of Political Interference with Government Climate Change Science: Hearing Before the Comm. on Oversight and Government Reform*, 110th Cong. 324 (Mar. 19, 2007) (statement of Philip A. Cooney), <https://www.govinfo.gov/content/pkg/CHRG-110hhrg37415/html/CHRG-110hhrg37415.htm>).

c. Presenting Defendants' positions on climate change in domestic and international forums, including by presenting an "alternative" to the IPCC.

130. In furtherance of the strategies described in these memoranda, Defendants made misleading statements about climate change, the relationship between climate change and fossil fuel products, and the urgency of the problem. Defendants made these statements in public fora and in advertisements published in newspapers and other media with substantial circulation in Bucks County, including national publications such as *The New York Times*, *The Wall Street Journal*, and *The Washington Post*.

131. Another key strategy in Defendants' efforts to discredit the scientific consensus on climate change as well as the IPCC itself was to fund scientists who held fringe opinions. Those scientists obtained part or all of their research budget from the Fossil Fuel Defendants, either directly or through Fossil Fuel Defendant-funded organizations like API,¹⁶⁶ but frequently failed to disclose their funding sources.¹⁶⁷

132. One such scientist, Dr. Wei-Hock ("Willie") Soon, received over \$1.2 million from the fossil fuel industry, including Exxon and API. Dr. Soon did not disclose these funding sources on at least eleven published papers. "Dr. Soon, in correspondence with his corporate funders, described many of his scientific papers as 'deliverables' that he completed in exchange for their

¹⁶⁶ See e.g., Willie Soon & Sallie Baliunas, *Proxy climatic and environmental changes of the past 1000 Years*, 23 CLIMATE RSCH. 89, 105 (2003), <https://www.int-res.com/articles/cr2003/23/c023p089.pdf>.

¹⁶⁷ William Allman, *Climate Change Researcher Received Funds From Fossil Fuel Industry*, SMITHSONIAN MAG. (Feb. 26, 2015), <https://www.smithsonianmag.com/smithsonianmag/smithsonian-climate-change-scientist-180954380/>.

money.”¹⁶⁸ Dr. Soon also took the highly unusual approach of contractually agreeing to allow donors to review his research before publication, and his housing institution, the Smithsonian Institute, agreed not to disclose the funding arrangement without prior permission from his fossil fuel donors.¹⁶⁹ This Defendant-funded research includes articles in scientific journals accusing the IPCC of overstating the negative environmental effects of carbon dioxide emissions and arguing that the sun is responsible for recent climate trends.

133. Creating a false perception of disagreement in the scientific community (despite the consensus previously acknowledged within the industry) has evidently disrupted vital channels of communication between scientists and the public. A 2007 Yale University-Gallup poll found that while 71 percent of Americans personally believed global warming was happening, only 48 percent believed that there was a consensus among the scientific community, and 40 percent believed, falsely, that there was substantial disagreement among scientists over whether global warming was occurring.¹⁷⁰ Eight years later, a 2015 Yale-George Mason University poll found that “[o]nly about one in ten Americans understands that nearly all climate scientists (over 90 [percent]) are convinced that human-caused global warming is happening, and just half . . . believe a majority do.”¹⁷¹ Further, it found that 33 percent of Americans believe that climate change is

¹⁶⁸ Justin Gillis & John Schwarz, *Deeper Ties to Corporate Cash for Doubtful Climate Researcher*, THE N. Y. TIMES (Feb. 21, 2015), <https://www.nytimes.com/2015/02/22/us/ties-to-corporate-cash-for-climate-change-researcher-Wei-Hock-Soon.html>.

¹⁶⁹ Kathy Mulvey et al., *The Climate Deception Dossiers: Internal Fossil Fuel Industry Memos Reveal Decades of Disinformation*, UNION OF CONCERNED SCIENTISTS, at 6-9 (July 2015), <https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf>.

¹⁷⁰ *American Opinions on Global Warming: A Yale/Gallup/Clearvision Poll*, YALE PROGRAM ON CLIMATE CHANGE COMM’N (July 31, 2007), <https://climatecommunication.yale.edu/publications/american-opinions-on-global-warming/>.

¹⁷¹ Anthony Leiserowitz et al., *Climate Change in the American Mind*, YALE PROGRAM ON CLIMATE CHANGE COMM’N (Oct. 2015), <https://climatecommunication.yale.edu/wp-content/uploads/2015/11/Climate-Change-American-Mind-October-20151.pdf>.

mostly due to natural changes in the environment, in stark contrast to the 97 percent of peer-reviewed climate science papers that acknowledge that global warming is happening and at least partly human-caused.¹⁷² The lack of progress, and indeed the regression, in the public's understanding of climate science over this period—during which Defendants professed to accept the conclusions of mainstream climate science—demonstrates the success of Defendants' deception campaign in thwarting the dissemination of accurate scientific information to the public regarding the effects of the use of fossil fuels.

134. Defendants have funded dozens of think tanks and front groups promoting climate change denial. These organizations include the Competitive Enterprise Institute, the Heartland Institute, Frontiers of Freedom, Committee for a Constructive Tomorrow, and the Heritage Foundation. According to the Union of Concerned Scientists, from 1998 to 2017, Exxon spent over \$36 million funding numerous organizations misrepresenting the scientific consensus that fossil fuel products were causing climate change, sea level rise, and injuries to Bucks County, among other communities.¹⁷³ Several Defendants have been linked to other groups that undermine the scientific basis linking fossil fuel products to climate change and sea level rise, including the Frontiers of Freedom Institute and the George C. Marshall Institute.

¹⁷² *Id.*

¹⁷³ *ExxonMobil Foundation & Corporate Giving to Climate Change Denier & Obstructionist Organizations*, UNION OF CONCERNED SCIENTISTS (2017), <https://www.ucsusa.org/sites/default/files/attach/2019/ExxonMobil-Worldwide-Giving-1998-2017.pdf>.

135. Phillip Cooney, an attorney at API from 1996 to 2001, testified at a 2007 Congressional hearing that it was “typical” for API to fund think tanks and advocacy groups that minimized fossil fuels’ role in climate change.¹⁷⁴

136. In 2007, Exxon publicly reported: “In 2008, we will discontinue contributions to several public policy research groups whose position on climate change could divert attention from the important discussion on how the world will secure the energy required for economic growth in an environmentally responsible manner.”¹⁷⁵ While Exxon acknowledged that funding climate denial was affecting the public debate on climate change, Exxon did not keep its promise to stop. Exxon continued to support groups denying climate science in 2008 and beyond.

137. Beginning in 2015, journalists began to uncover mounting evidence of Defendants’ campaign of deception. In September 2015, journalists at *Inside Climate News* reported that, as far back as the 1970s, Exxon had sophisticated knowledge of the causes and consequences of climate change and of the role its products played in contributing to climate change.¹⁷⁶

138. Between October and December 2015, several journalists at the Energy and Environment Reporting Project at Columbia University’s Graduate School of Journalism and the *Los Angeles Times* also exposed the fact that, as far back as the 1970s, Exxon and other members

¹⁷⁴ *Allegations of Political Interference with Government Climate Change Science: Hearing Before the Comm. on Oversight and Government Reform*, 110th Cong. 324 (Mar. 19, 2007) (statement of Philip A. Cooney), <https://www.govinfo.gov/content/pkg/CHRG-110hhrg37415/html/CHRG-110hhrg37415.htm>).

¹⁷⁵ *2007 Corporate Citizenship Report*, EXXONMOBIL, at 41 (2007), <http://www.documentcloud.org/documents/2799777-ExxonMobil-2007-Corporate-Citizenship-Report.html>.

¹⁷⁶ Neela Banerjee et al., *Exxon: The Road Not Taken*, INSIDE CLIMATE NEWS, <https://insideclimatenews.org/project/exxon-the-road-not-taken/> (last visited Mar. 13, 2024).

of the fossil fuel industry had superior knowledge of the causes and consequences of climate change and the role their products played in causing it.¹⁷⁷

139. In November 2017, the Center for International Environmental Law issued a report revealing that Defendants, including API, had superior knowledge of the causes and consequences of climate change and the role fossil fuel products played in causing it as early as the 1970s.¹⁷⁸

140. In September 2023, the *Wall Street Journal* reported that Exxon worked “behind closed doors” to sow public doubt about climate change. The article was based on “documents reviewed by the Journal, which haven’t been previously reported.”¹⁷⁹

D. Defendants Could Have Chosen to Facilitate, and Be Part of, a Lower-Carbon Future, but Instead Chose Corporate Profits and Continued Deception.

141. Defendants could have chosen a different path. They could have refrained from undermining the global effort to mitigate the impacts of GHG emissions, or even contributed to it by, for example, delineating practical technical strategies, policy goals, and regulatory structures that would have allowed them to continue their business ventures while reducing GHG emissions and supporting a transition to a lower-carbon future. Instead, Defendants devoted significant efforts to deceiving consumers, including in Bucks County, and the public about the existential hazards of burning fossil fuels—all with the purpose and effect of perpetuating and inflating usage of fossil fuels and delaying the advent of alternative energy sources not based on fossil fuels.

¹⁷⁷ The Los Angeles Times published a series of three articles between October and December 2015. See Jennings et al., *supra* note 39; Jerving et al., *supra* note 39; Lieberman & Rust, *supra* note 39.

¹⁷⁸ Carol 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’T L. (Nov. 2017), <https://www.ciel.org/reports/smoke-and-fumes>.

¹⁷⁹ Christopher M. Matthews & Collin Eaton, *Inside Exxon’s Strategy to Downplay Climate Change*, THE WALL STREET J. (Sept. 14, 2023, 5:30 AM ET), <https://www.wsj.com/business/energy-oil/exxon-climate-change-documents-e2e9e6af>.

142. As a result of Defendants' tortious, deceptive, and misleading conduct, consumers of Defendants' fossil fuel products and the public in Bucks County as elsewhere, have been deliberately and unnecessarily deceived about the following: the role of fossil fuel products in causing global warming, sea level rise, disruptions to the hydrologic cycle, more extreme precipitation, heat waves, droughts, and other consequences of the climate crisis; the acceleration of global warming since the mid-twentieth century; and the fact that continued increases in fossil fuel consumption create increasingly severe environmental threats and increasingly significant economic costs for Bucks County and other communities. Consumers and the public in Bucks County and elsewhere have also been deceived about the depth and breadth of the state of the scientific evidence on anthropogenic climate change, and, in particular, about the strength of the scientific consensus regarding the role of fossil fuels in causing both climate change and a wide range of potentially destructive impacts.

143. Defendants' deception also significantly delayed the transition to alternative energy sources that could have prevented some of the worst impacts of climate change in Bucks County and elsewhere. By sowing doubt about the future consequences of unrestricted fossil fuel consumption, Defendants' deception campaign successfully forestalled development and dissemination of alternative fuels, as well as legislation supporting a broad-based transition to alternative energy sources. This delay led to emission of huge amounts of avoidable greenhouse gases, thereby ensuring that the damage caused by climate change will be substantially more severe than if Defendants had acted in a manner commensurate with their internal knowledge of climate risks.

E. Defendants' Internal Actions Demonstrate Their Awareness of the Impacts of Climate Change and Their Intent to Continue to Profit from the Unabated Use of Fossil Fuel Products.

144. In contrast to their public-facing efforts challenging the validity of the scientific consensus about anthropogenic climate change, the Fossil Fuel Defendants' acts and omissions since the 1970s—including taking expensive actions to protect their own investments from the impacts of climate change—have evinced their clear understanding of the realities of climate change and its likely consequences. These actions have included making multi-billion-dollar infrastructure investments for their own operations, including, among others, the following: raising offshore oil platforms to protect against sea level rise; reinforcing offshore oil platforms to withstand increased wave strength and storm severity; and developing technology and infrastructure to extract, store, and transport fossil fuels in a warming Arctic environment.¹⁸⁰

145. For example, oil and gas reserves in the Arctic that were not previously reachable due to sea ice are becoming increasingly reachable as sea ice thins and melts due to climate change.¹⁸¹ In 1973, Exxon obtained a patent for a cargo vessel, such as a tank ship, capable of breaking through sea ice for use in Arctic operations¹⁸² and for an oil tanker¹⁸³ designed for Arctic operations.

¹⁸⁰ Lieberman & Rust, *supra* note 39.

¹⁸¹ James Henderson & Julia Loe, *The Prospects and Challenges for Arctic Oil Development*, OXFORD INST. FOR ENERGY STUD., at 1 (Nov. 2014), <https://www.oxfordenergy.org/publications/the-prospects-and-challenges-for-arctic-oil-development/>.

¹⁸² Icebreaking Cargo Vessel, U.S. Patent No. 3,727,571 (filed July 7, 1971) (issued Apr. 17, 1973), <https://www.google.com/patents/US3727571>.

¹⁸³ Tanker Vessel, U.S. Patent No. 3,745,960 (filed May 6, 1971) (issued July 17, 1973), <https://www.google.com/patents/US3745960>.

146. In 1974, Texaco (Chevron) obtained a patent for a mobile Arctic drilling platform designed to withstand significant interference from lateral ice masses.¹⁸⁴

147. Shell obtained a patent for an Arctic offshore platform adapted for conducting operations in the Beaufort Sea in 1984.¹⁸⁵

148. In 1989, Norske Shell, Royal Dutch Shell's Norwegian subsidiary, altered designs for a natural gas platform planned for construction in the North Sea to account for anticipated sea level rise. Those design changes added substantial costs to the project.¹⁸⁶

a. In 1979, Norske Shell was approved by Norwegian oil and gas regulators to operate a portion of the Troll oil and gas field.

b. In 1986, the Norwegian parliament granted Norske Shell authority to complete the first development phase of the Troll field gas deposits, and Norske Shell began designing the "Troll A" gas platform, with the intent to begin operation of the platform in approximately 1995. Based on the very large size of the gas deposits in the Troll field, the Troll A platform was projected to operate for approximately 70 years.

c. The platform was originally designed to stand approximately 100 feet above sea level—the height necessary to stay above the waves in a once-in-a-century-strength storm.

d. In 1989, Shell engineers revised their plans to increase the above-water height of the platform by three to six feet in order to account for higher anticipated average sea

¹⁸⁴ Mobile, Arctic Drilling and Production Platform, U.S. Patent No. 3,793,840 (filed Oct. 18, 1971) (issued Feb. 26, 1974), <https://www.google.com/patents/US3793840>.

¹⁸⁵ Arctic offshore platform, U.S. Patent No. 4,427,320 (filed Feb. 19, 1982) (issued Jan. 24, 1984), <https://www.google.com/patents/US4427320>.

¹⁸⁶ *Greenhouse Effect: Shell Anticipates A Sea Change*, THE N.Y. TIMES (Dec. 20, 1989), <https://www.nytimes.com/1989/12/20/business/greenhouse-effect-shell-anticipates-a-sea-change.html>; Lieberman & Rust, *supra* note 39.

levels and increased storm intensities due to global warming over the platform's 70-year operational life.¹⁸⁷

e. Shell projected that the additional three to six feet of above-water construction would increase the cost of the Troll A platform by tens of millions of dollars.

F. Defendants' Actions Have Exacerbated the Costs of Adapting to and Mitigating the Adverse Impacts of the Climate Crisis.

149. As GHG pollution accumulates in the atmosphere, some of which (namely CO₂) does not dissipate for potentially thousands of years, climate changes and consequent adverse environmental changes compound, and their frequencies and magnitudes increase. As those adverse environmental changes compound, and their frequencies and magnitudes increase, so too do the physical, environmental, economic, and social injuries resulting therefrom.

150. Delayed societal development and adoption of alternative energy sources and related efforts to curb anthropogenic GHG emissions have therefore increased environmental harms and increased the magnitude and cost to address harms, including to Bucks County, that have already occurred or are locked in as a result of historical emissions.

151. Therefore, Defendants' campaign to obscure the science of climate change to protect and expand the use of fossil fuels greatly increased and continues to increase the injuries suffered by Bucks County and its residents. Had concerted action to reduce GHG emissions begun earlier, the subsequent impacts of climate change could have been avoided or mitigated.

152. Defendants have been aware for decades that clean energy presents a feasible alternative to fossil fuels. In 1980, Exxon forecasted that non-fossil fuel energy sources, if pursued,

¹⁸⁷ *Id.*

could penetrate half of a competitive energy market in approximately 50 years.¹⁸⁸ This internal estimate was based on extensive modeling within the academic community, including research conducted by the Massachusetts Institute of Technology's David Rose, which concluded that a transition to non-fossil energy could be achieved in around 50 years. Exxon circulated an internal memo approving of Mr. Rose's conclusions, stating they were "based on reasonable assumptions."¹⁸⁹ But instead of pursuing a clean energy transition or warning the public about the dangers of burning fossil fuels, Defendants chose to deceive consumers, including those in Bucks County, to preserve Fossil Fuel Defendants' profits and assets. As a result, much time has been lost in which consumers could have done much to mitigate the climate crisis in Bucks County.

153. Despite Defendants' knowledge of the foreseeable, measurable, and significant harms associated with the unrestrained consumption and use of fossil fuel products, in Bucks County as elsewhere, and despite Defendants' knowledge of technologies and practices that could have helped to reduce the foreseeable dangers associated with their fossil fuel products, Defendants continued to promote heavy fossil fuel use, and mounted a campaign to obscure the connection between fossil fuel products and the climate crisis, thus dramatically adding to the costs of abatement. This campaign was intended to, and did, reach and influence Bucks County consumers, along with consumers elsewhere.

154. For example, in 2006, Exxon wrote a letter to the Royal Society recognizing that "the accumulation of greenhouse gases in the Earth's atmosphere poses risks that may prove significant for society and ecosystems." "Yet behind closed doors, Exxon took a very different

¹⁸⁸ Henry Shaw, *Memorandum to T.K. Kett re Exxon Research and Engineering Company's Technological Forecast: CO₂ Greenhouse Effect*, CLIMATEFILES, at 5 (Dec. 18, 1980), <https://www.climatefiles.com/exxonmobil/1980-exxon-memo-on-the-co2-greenhouse-effect-and-current-programs-studying-the-issue/>.

¹⁸⁹ Glaser, *supra* note 84 at 17-18.

tack: Its executives strategized over how to diminish concerns about warming temperatures, and they sought to muddle scientific findings that might hurt its oil-and-gas business.”¹⁹⁰

155. At all relevant times, Defendants were deeply familiar with opportunities to reduce the use of fossil fuel products and associated GHG emissions, mitigate the harms associated with the use and consumption of these products, and promote development of alternative, clean energy sources. Examples of that recognition date back to the 1960s, and include, but are not limited to, the following:

a. In 1980, Imperial Oil (Exxon) wrote in its “Review of Environmental Protection Activities for 1978–79”: “There is no doubt that increases in fossil fuel usage and decreases in forest cover are aggravating the potential problem of increased CO₂ in the atmosphere. Technology exists to remove CO₂ from stack gases but removal of only 50 percent of the CO₂ would double the cost of power generation.”¹⁹¹

b. A 1987 company briefing produced by Shell on “Synthetic Fuels and Renewable Energy” emphasized the importance of immediate research and development of alternative fuel sources, noting that “the task of replacing oil resources is likely to become increasingly difficult and expensive and there will be a growing need to develop clean, convenient alternatives. . . . New energy sources take decades to make a major global contribution. Sustained commitment is therefore needed during the remainder of this century to ensure that new

¹⁹⁰ Christopher M. Matthews & Collin Eaton, *Inside Exxon's Strategy to Downplay Climate Change*, THE WALL STREET J. (Sept. 14, 2023, 5:30 AM ET), <https://www.wsj.com/business/energy-oil/exxon-climate-change-documents-e2e9e6af>.

¹⁹¹ *Review of Environmental Protection Activities for 1978–1979*, IMPERIAL OIL LTD., at 2 (Aug. 6, 1980), <https://www.climatefiles.com/exxonmobil/1980-imperial-oil-review-of-environmental-protection-activities-for-1978-1979/>.

technologies and those currently at a relatively early stage of development are available to meet energy needs in the next century.”¹⁹²

c. A 1989 article in a publication from Exxon Corporate Research for company use only stated:

CO₂ emissions contribute about half the forcing leading to a potential enhancement of the Greenhouse Effect. Since energy generation from fossil fuels dominates modern CO₂ emissions, strategies to limit CO₂ growth focus near term on energy efficiency and long term on developing alternative energy sources. Practiced at a level to significantly reduce the growth of greenhouse gases, these actions would have substantial impact on society and our industry—near-term from reduced demand for current products, long term from transition to entirely new energy systems.¹⁹³

156. Despite these repeated recognitions of opportunities to reduce emissions and mitigate corresponding harms from climate change, Defendants continued to sow doubt and disinformation in the minds of the public, including to Bucks County residents, regarding the causes and effects of climate change, and methods of reducing emissions. Examples of those efforts include, but are not limited to, the following:

a. In 1996, more than 30 years after API’s president told petroleum industry leaders that carbon emissions from fossil fuels could “cause marked changes in climate” by the year 2000 if not abated,¹⁹⁴ API published the book *Reinventing Energy: Making the Right Choices* to refute this very conclusion. Contradicting the scientific consensus of which its members had been aware for decades, the book claims: “Currently, no conclusive—or even strongly

¹⁹² *Synthetic Fuels and Renewable Energy*, SHELL BRIEFING SERV. (1987) <https://www.climatefiles.com/shell/1987-shell-synthetic-fuels-renewable-energy-briefing/>.

¹⁹³ Brian Flannery, *Greenhouse Science, Connections: Corporate Research*, EXXON RSCH. AND ENGINEERING CO. (1989), <https://www.climatefiles.com/exxonmobil/1989-exxon-mobil-article-technologys-place-marketing-mix/>.

¹⁹⁴ Frank Ikard, *Meeting the Challenges of 1966, in Proceedings of the American Petroleum Institute*, at 13 (1965), <https://www.documentcloud.org/documents/5348130-1965-API-Proceedings>.

suggestive—scientific evidence exists that human activities are significantly affecting sea levels, rainfall, surface temperatures, or the intensity and frequency of storms.”¹⁹⁵ The book also suggested that even if some warming does occur, such warming “would present few if any problems” because, for example, farmers could be “smart enough to change their crop plans” and low-lying areas would “likely adapt” to sea level rise.¹⁹⁶

b. In the publication, API also contended that “[t]he state of the environment does not justify the call for the radical lifestyle changes Americans would have to make to substantially reduce the use of oil and other fossil fuels” and that the “benefits of alternatives aren’t worth the cost of forcing their use.” “Some jobs definitely will be created in making, distributing and selling alternatives. But they will come at the expense of lost jobs in the traditional automobile and petroleum industries,” the authors continued. “[A]lternatives will likely be more expensive than conventional fuel/vehicle technology. Consumers, obviously, will bear these increased expenses, which means they will have less to spend on other products. This in turn will . . . cost jobs.”¹⁹⁷

c. API published this book to ensure its members could continue to produce and sell fossil fuels in massive quantities that it knew would devastate the planet. The book’s final section reveals this purpose. API concluded: “[S]evere reductions in greenhouse gas emissions by the United States, or even all developed countries, would impose large costs on those countries but yield little in the way of benefits—even under drastic climate change scenarios.”¹⁹⁸

¹⁹⁵ *Reinventing Energy: Making the Right Choices*, API, at 79 (1996), <https://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-energy/> (emphasis in original).

¹⁹⁶ *Id.* at 85-87.

¹⁹⁷ *Id.* at 59, 68, 69.

¹⁹⁸ *Id.* at 89.

157. The Fossil Fuel Defendants could have made major inroads towards mitigating the harms they caused, and in particular, the County's injuries, by developing and employing technologies to capture and sequester GHG emissions associated with conventional use of their fossil fuel products. The Fossil Fuel Defendants had knowledge of these technologies dating back at least to the 1960s, and, had indeed, internally researched many such technologies.

158. Even if the Fossil Fuel Defendants did not adopt technological or energy source alternatives that would have reduced the use of fossil fuel products, reduced global GHG pollution, and/or mitigated the harms associated with the use and consumption of such products, the Fossil Fuel Defendants could have taken other practical, cost-effective steps to mitigate the harms caused by their fossil fuel products. Those alternatives could have included, among other measures, the following:

a. Refraining from affirmative efforts, whether directly, through coalitions, or through front groups, to distort public perception and cause many consumers and businesses to think the relevant science is far less certain than it actually is;

b. Acknowledging the validity of scientific evidence on anthropogenic climate change and the damages it will cause people, communities (including the County), and the environment, thereby contributing to an earlier and quicker transition to cleaner energy sources that could help minimize catastrophic climatic consequences;

c. Forthrightly communicating with consumers and the general public about the global warming hazards of fossil fuel products that were known to Defendants, which would have enabled those groups to make informed decisions about whether to curb the use of these products—including whether and to what extent to invest in alternative clean energy sources instead of in fossil fuels;

d. Sharing their internal scientific research with consumers, lawmakers, and the public, including with Bucks County and its residents, as well as with other scientists and business leaders, to increase public understanding of the scientific underpinnings of climate change and its relation to fossil fuel products; and

e. Prioritizing development of alternative sources of energy through sustained investment and research on renewable energy sources to replace dependence on hazardous fossil fuel products.

159. Despite their knowledge of the foreseeable harms associated with the consumption of fossil fuel products, and despite the existence of, and the fossil fuel industry's knowledge of, opportunities to reduce the foreseeable dangers associated with those products, Defendants wrongfully promoted and concealed the hazards of using fossil fuel products, delaying meaningful development of alternative energy sources and exacerbating the costs of adapting to and mitigating the adverse impacts of the climate crisis, including the climate crisis in Bucks County.

G. Defendants Continue to Deceive Bucks County Consumers Through Misleading Advertisements That Portray Defendants as Climate-Friendly Energy Companies and Obscure Their Role in Causing Climate Change.

160. Defendants' deceptive conduct continues to the present day, albeit through updated messaging. Now, rather than engaging solely in outright denials of the existence of climate change, Defendants deflect attention from their role in causing climate change by falsely portraying fossil fuel products as environmentally friendly, climate-friendly, or otherwise less environmentally damaging than those products really are.

161. Defendants have continued to mislead the public about the impact of fossil fuel products on climate change through "greenwashing." Through recent advertising campaigns and public statements in Bucks County and Pennsylvania and/or intended to reach Bucks County and Pennsylvania, including but not limited to online advertisements and social media posts,

Defendants falsely and misleadingly portray these products as “green,” “clean,” “cleaner,” and/or “environmentally friendly,” and the Fossil Fuel Defendants portray themselves as climate-friendly energy companies that are deeply engaged in finding solutions to climate change. By advertising fossil fuel products and their businesses as environmentally friendly, and with words, phrases, colors, and imagery that evoke positive environmental attributes, Defendants seek to convince consumers that their industry is beneficial to the environment. Reasonable consumers—*i.e.*, a significant portion of the general consuming public or of targeted consumers, acting reasonably under the circumstances—are likely to be misled by Defendants’ advertisements into believing that their products do not contribute to substantial injury to the environment. In reality, Fossil Fuel Defendants continue to primarily invest in, develop, promote, and profit from fossil fuel products and heavily market those products to consumers, including to consumers in Bucks County, with full knowledge that those products will continue to exacerbate climate change harms.

162. Defendants’ greenwashing exploits Bucks County and Pennsylvania consumers’ concerns about climate change and their desire to purchase “green” products and spend their consumer dollars on products and businesses that are taking substantial and effective measures to combat climate change. By deceptively portraying themselves and their products as part of the climate solution, rather than as the problem, Defendants’ advertisements induce consumers to purchase fossil fuel products and develop brand affinity under the misimpression that purchasing and using fossil fuel products supports genuine, substantial, and effective measures to mitigate climate change, rather than contributing to climate change. Defendants’ false advertisements are thus likely to mislead Bucks County and Pennsylvania consumers.

163. At all times relevant to this complaint, Defendants have attempted to deceive consumers by promoting certain of the Fossil Fuel Defendants’ fossil fuel products as

environmentally beneficial, when in fact Defendants knew that those products would continue to contribute to climate change, and thus imperil the environment, if used as intended. These products, which Defendants tout, in fact result in the increase of GHG emissions, despite Defendants' knowledge that, when used as designed and intended, these products lead to climate change.

164. Defendants' marketing of fossil fuel products as environmentally beneficial follows in the footsteps of the tobacco industry's advertising campaigns to de-emphasize, and confuse the public, including in Bucks County, about the deadly effects of smoking cigarettes. Just as tobacco companies promoted "low-tar" and "light" cigarettes, inducing consumers to think of them as healthy alternatives to quitting smoking, while knowing that smoking "healthy" cigarettes was still harmful to human health, so too do Defendants peddle "low-carbon" and "emissions-reducing" fossil fuel products to persuade consumers that those products are climate-friendly alternatives to traditional fossil fuels. In reality, the fossil fuel products they describe as "low-carbon," "clean" and/or "cleaner," "green," and "emissions-reducing" in fact contribute to climate change and are harmful to the health of the planet and its people.

165. Below are representative examples of Defendants' advertisements to Bucks County and Pennsylvania consumers that misleadingly portray fossil fuels as environmentally beneficial or benign and fail to mention the products' role in causing environmentally injurious climate change. The emphasis on lower emissions, "cleaning" terminology, and positive environmental imagery and messaging—individually and together—in Defendants' advertisements are likely to mislead reasonable consumers by suggesting that Defendants' fuels are environmentally beneficial or benign when they contribute to climate change like any other fossil fuel product. The examples are representative of Defendants' other advertisements and public statements in Defendants'


greater greenwashing strategy to confuse consumers about the consequences of using fossil fuel products and consequently to increase demand for those fossil fuel products.

a. Since at least 2016, Exxon has offered for sale and marketed its Synergy fossil fuels, including, since at least 2020, at a substantial number of Exxon-branded gas stations in Bucks County and Pennsylvania. In Exxon's advertisements for its Synergy fuels, including those on or near the gas pumps at Exxon-branded gas stations in Bucks County and Pennsylvania, Exxon makes several claims that a reasonable consumer would understand to mean that the Synergy fuels are beneficial or benign, and not harmful, to the environment. For example, Exxon consistently promotes Synergy fuels as "clean" or "cleaner," and the company's climate strategy mentions its Synergy fuel, claiming it can help reduce GHG emissions. Exxon also cites Synergy's alleged reduction of CO₂ emissions in Exxon's advertisement of the company's improved environmental performance. An advertisement on Exxon's website, which is reproduced on the following page, includes an image featuring a bright sunrise in a clear sky over hills of green grass, green trees, and little to no industrial or urban development.

Exxon Mobil Fuels [Find Station](#) [Our fuel](#) [Rewards and payment](#) [Commercial](#) [Get help](#) [About us](#) [Q](#)

Home » [Environmental performance](#)

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[Click here for more information.](#)



Environmental performance


Conscientious practices. Rigorous standards.

Continually improving environmental performance while pursuing reliable and affordable energy

Ten years ago, we introduced *Protect Tomorrow. Today.* – a set of expectations that serves as the foundation for our environmental performance. Guided by a scientific understanding of the environmental impacts and related risks of our operations, these rigorous standards and good practices have become an integral part of our day-to-day operations in every country in which we do business including those with minimal regulations in place.


As well, we consider the long-term social and economic needs of the communities in which we work and continually engage stakeholders in the process.

The following are the three major areas in which we've concentrated our efforts to reduce environmental impacts:



Improve the efficiency of our operations

ExxonMobil invested more than \$1.5 billion over the last six years to improve efficiency and reduce greenhouse gas emissions from our operating facilities, such as refineries and chemical plants. In the past ten years we have reduced greenhouse gas emissions in our operations by more than 7 million metric tons, which is the equivalent of taking about 1.4 million cars off the road.



Improve efficiency in consumer use of fuels

We're continually innovating to develop products that enable customers to reduce their energy use and CO2 emissions. For example, we have:

- Developed specially formulated synthetic lubricants for cars, trucks and industrial equipment that last longer and help end-users reduce their energy consumption
- Created tire liners that retain air better than their predecessors, thereby improving vehicle fuel efficiency
- Developed a technology to improve the separator films used in lithium-ion batteries, which are used in laptops, cell phones and, increasingly, hybrid vehicles
- Engineered Fuel Technology Synergy™ fuels to help improve fuel economy and reduce CO2 emissions**

Figure 12: ExxonMobil Fuels “Environmental Performance” website¹⁹⁹

¹⁹⁹ *Environmental Performance*, EXXONMOBIL, <https://www.exxon.com/en/environment> (last visited Mar. 22, 2024).


b. In addition to its Synergy fuels, Exxon offers for sale, and has marketed, Mobil 1™ ESP x2 motor oil to Bucks County and Pennsylvania consumers. From 2016 through at least 2022, Exxon promoted Mobil 1™ ESP x2 on the website Energy Factor—effectively a corporate blog for Exxon, in which Exxon claims to discuss developing safe and reliable energy sources for the future—in a post titled, “Green motor oil? ExxonMobil scientists deliver an unexpected solution.”²⁰⁰ According to its advertisement of Mobil 1™ ESP x2, Exxon specially formulated the green oil to “contribute to [] carbon-emission reduction efforts.” Exxon’s advertising suggests to the consumer that purchase and use of this motor oil conveys an environmental benefit, when in fact the opposite is true.

c. Around 1990, Exxon unveiled its “Exxon Supreme, Reduced Emissions Unleaded” marketing campaign promoting “New Exxon 93 Supreme” gasoline that “has been reformulated to reduce emissions.” In September 1996, Exxon discontinued the 93 Supreme gasoline marketing campaign after the Federal Trade Commission accused Exxon of false and misleading advertising. According to studies, high-octane premium gas, such as Exxon’s 93 Supreme, not only consumes more energy to produce than a gallon of regular gas,²⁰¹ but also increases emissions.²⁰²

²⁰⁰ *Green motor oil? ExxonMobil scientists deliver an unexpected solution*, EXXONMOBIL (Jul. 19, 2016) <https://web.archive.org/web/20220221083851/https://energyfactor.exxonmobil.com/energy-innovation/transportation/green-motor-oil-exxonmobil-scientists-deliver-unexpected-solution/>.

²⁰¹ Elizabeth Martin-Malikian, *High Octane: Eco-Adaptive Architecture*, 2012 ACSA FALL CONFERENCE 123 (“Making a gallon of premium gas thus consumes more energy than making a gallon of regular.”).

²⁰² Cenk Sayin et al., *An experimental study of the effect of octane number higher than engine requirement on the engine performance and emissions*, 25 APPLIED THERMAL ENGINEERING 1315, 1317 (2005) (“The results demonstrated that as the octane number was increased from 91 to 93, CO emissions boosted nearly 5%.”).



**NEW EXXON 93 SUPREME.
HIGHER PERFORMANCE
AND LOWER EMISSIONS.**

New Exxon 93 Supreme still helps eliminate knock in virtually any car. It still gives you our clean engine formula. And now, it too has been reformulated to reduce emissions. Exxon Supreme and Exxon Plus. The first of a new generation of gasolines from Exxon.

Exxon Supreme
Reduced Emissions Unleaded
Precision equipment for precision engines.

Figure 13: New Exxon 93 Supreme “reformulated to reduce emissions”²⁰³

²⁰³ EXXON, THE PHILADELPHIA INQUIRER, at 61 (July 22, 1990).

d. Shell also describes its products as “cleaning” and that their use “produces fewer emissions.”²⁰⁴ Shell’s repeated claim that its products are clean, and its frequent use of green and environmentally positive imagery in its marketing materials, individually and together, are likely to mislead reasonable consumers into believing that Shell’s fuels are environmentally beneficial or benign, when in fact they are fossil fuels which, when used as designed and intended, contribute to climate change.

e. Similarly, Chevron’s gasoline offered for sale and marketed throughout the country, is marketed as having “cleaning power” that minimizes emissions. Chevron’s repeated emphasis on “cleaning” terminology, its focus in its marketing materials on “advancing a lower carbon future,” and its express solicitation of consumers who “care for the environment,” are likely to mislead reasonable consumers by suggesting that Chevron’s fuels are environmentally beneficial or benign, when they are not.²⁰⁵

f. ConocoPhillips, through its conoco-branded gas stations in Bucks County and Pennsylvania, offers for sale and markets its conoco-brand fossil fuels. In ConocoPhillips’s advertisements for its conoco-brand fuels, including advertisements on or near the pumps at conoco-branded gas stations in Bucks County and Pennsylvania, ConocoPhillips claims that its fuels “clean” a car’s engine, resulting in “lower emissions,” and that deposits left from other gasolines “can increase emissions.” ConocoPhillips advertises that 76’s fossil fuels are “better for

²⁰⁴ *Shell Gasoline*, SHELL <https://web.archive.org/web/20231213183548/https://www.shell.us/motorist/shell-fuels/shell-gasoline.html> (last visited Mar. 13, 2024).

²⁰⁵ Chevron, *Corporate Sustainability Report: The Energy Transition*, LINKEDIN https://web.archive.org/web/20231213184101/https://www.linkedin.com/posts/chevron_corporat-e-sustainability-report-the-energy-activity-7061799648075657217-fa21/ (last visited Dec. 13, 2023).

the environment.”²⁰⁶ The 76 website for 76’s fuels contains the marketing materials shown below, in which ConocoPhillips makes the claim—superimposed on an image of a bluebird standing on a car’s side mirror and looking at the viewer, with silhouetted trees in the background—that 76 and its fossil fuels align with the values of environmentally conscious consumers: “We’re on the driver’s side®. And the environment’s.”



Figure 14: ConocoPhillips 76 Fuels Website: Top Tier Gas²⁰⁷

166. Defendants also misleadingly portray natural gas as environmentally beneficial or benign, failing to mention the products’ role in causing environmentally injurious climate change. Defendants’ misleading messaging regarding the alleged environmental benefits of natural gas is likely to mislead reasonable consumers by suggesting that fossil fuels, in particular natural gas, are environmentally beneficial and not harmful to the climate. In reality, the majority of natural gas is derived from fossil fuels, and its primary constituent is methane, a potent greenhouse gas

²⁰⁶ *TOP TIER® Gas, 76 GAS STATIONS* <https://web.archive.org/web/20231213204301/https://www.76.com/top-tier-gas/> (last visited Dec. 13, 2023).

²⁰⁷ *Id.*

which plays a significant role in accelerating climate change. Methane has a relatively short lifespan, but its “global warming potential” is approximately 28 times greater than an equivalent weight of carbon dioxide over a 100-year time period, and approximately 84 times greater than carbon dioxide over a 20-year timeframe. Accounting for methane leaks, flaring, and venting in production and supply chains, the net GHG emissions of natural gas are on par with—and sometimes higher than—the GHG emissions from coal combustion. Moreover, combustion of methane for use as a fuel emits carbon dioxide.

167. ConocoPhillips has released advertisements on Facebook stating, “Natural Gas: efficient, affordable, environmentally-friendly. Find out how natural gas is meeting global energy demand while reducing climate-related risks,” and linking to a page on their website.²⁰⁸

168. In advertisements in *The New York Times* and *The Washington Post*, Shell touts its investments in “lower-carbon transport fuels,” including natural gas. In “The Mobility Quandary,” under a “Finding Sustainable Solutions” banner, Shell singles out natural gas as “a critical component of a sustainable energy mix” and a “cleaner-burning fossil fuel.”²⁰⁹ In “The Making of Sustainable Mobility,” Shell describes natural gas as “a cleaner fossil fuel” with a “lighter carbon footprint.”

169. In 2017, the Dutch Advertising Code Authority censured Shell and Exxon for advertising natural gas as the “cleanest fossil fuel.” The Advertising Code Authority reasoned that the claim “suggested that fossil fuels can be clean in that they do not cause environmental damage.

²⁰⁸ ConocoPhillips, *Natural gas makes renewables possible*, FACEBOOK AD LIBR., <https://www.facebook.com/ads/library/?id=222072331979534> (last visited Mar. 15, 2024).

²⁰⁹ *The Mobility Quandary*, WASH. POST CREATIVE GRP. <https://www.washingtonpost.com/brand-studio/shell/the-mobility-quandary/> (last visited Mar. 15, 2024).

It is firm . . . that that suggestion is not correct.”²¹⁰ Yet Shell, along with other Defendants, continues to make the same representations in the United States, including in Bucks County.

170. The Fossil Fuel Defendants also collectively promote their fossil fuel products through Defendant API, which makes public statements and claims about oil and natural gas. These include advertisements and promotional campaign websites that have been directed at and/or reached Bucks County and Pennsylvania, which reasonable consumers would understand to mean that the Fossil Fuel Defendants’ fossil fuels are beneficial or benign and not harmful to the environment. In particular, API’s marketing material falsely promotes the narrative that natural gas is an environmentally friendly fuel. A Facebook advertisement by API states, “Cleaner burning natural gas reduces CO₂ emissions at home and bolsters energy security abroad.”²¹¹

171. In several advertisements in *The Washington Post*—e.g., “Why natural gas will thrive in the age of renewables,” “Real climate solutions won’t happen without natural gas and oil,” and “Low- and no-carbon future starts with natural gas”—API has misleadingly touted natural gas as “part of the solution” to climate change. API claims natural gas is “clean.”²¹² API also promotes natural gas’s purported benefits through a campaign titled “Energy for a Cleaner Environment.”

²¹⁰ Arthur Neslen, *Shell and Exxon face censure over claim gas was ‘cleanest fossil fuel’*, THE GUARDIAN (Aug. 14, 2017, 12:14 PM EDT), <https://www.theguardian.com/environment/2017/aug/14/shell-and-exxon-face-censure-over-claim-gas-was-cleanest-fossil-fuel>.

²¹¹ American Petroleum Institute, *LNG is pro-environment and pro-energy security*, FACEBOOK AD LIBR. <https://www.facebook.com/ads/library/?id=321331956671661> (last visited Mar. 15, 2024).

²¹² American Petroleum Institute, *Why natural gas will thrive in the age of renewables*, WASH. POST CREATIVE GRP. <https://www.washingtonpost.com/brand-studio/api-why-natural-gas-will-thrive-in-the-age-of-renewables/> (last visited Mar. 15, 2024); Mike Sommers, *Real climate solutions won’t happen without natural gas and oil*, WASH. POST (Dec. 14, 2020) <https://www.washingtonpost.com/brand-studio/wp/2020/12/14/real-climate-solutions-wont-happen-without-natural-gas-and-oil/>.

172. API further claims, falsely, that, “[n]atural gas is an economical, environmentally friendly complement to renewable energy. The sooner green activists realize that, the more effective they’ll be at continuing to slash emissions.”²¹³

173. Additionally, Defendants often represent hydrogen fuel as “clean,” “renewable,” or “zero / low carbon.” These representations omit that the vast majority of hydrogen fuel is produced from fossil gas.²¹⁴ For example, ExxonMobil issued an advertisement on Twitter stating, “Hydrogen is the most abundant element on earth. And because hydrogen fuel is versatile - and produces no emissions at point-of-use, #hydrogen can play a big role helping society meet its net-zero goals.”²¹⁵ In another example, Shell has posted on Twitter, “A car that only emits water and heat? Learn more about #hydrogen, a fuel for the future that can help clean up transport today #makethefuture.”²¹⁶

174. Defendants also misrepresent the characteristics of biofuels. These misrepresentations fail to disclose that biofuels created from bioethanol and used in gasoline engines are typically still majority fossil fuel, and Fossil Fuel Defendants’ production of biofuels is insignificant compared to fossil fuel production and fuel demand. For example, Chevron has a Renewable Energy Group that produces “EnDura Fuels,” which it advertises as “A Simple Lower

²¹³ WP Brand Studio Content from API, *Low- and no-carbon future starts with natural gas*, WASH. POST CREATIVE GRP. (Feb. 15, 2019) <https://www.washingtonpost.com/brand-studio/wp/2019/02/15/low-and-no-carbon-future-starts-with-natural-gas/>.

²¹⁴ See *Hydrogen Production: Natural Gas Reforming*, U.S. DEP’T OF ENERGY EFFICIENCY & RENEWABLE ENERGY, <https://www.energy.gov/eere/fuelcells/hydrogen-production-natural-gas-reforming> (last visited Nov. 15, 2023).

²¹⁵ ExxonMobil (@ExxonMobil), X (Aug. 3, 2023, 10:00 AM), <https://twitter.com/exxonmobil/status/1687116317302870016> (The advertisement also includes a video where an Exxon employee touts hydrogen as “decarbonizing.” The advertisement later shows a diagram (but nothing spoken) showing that hydrogen comes from natural gas.).

²¹⁶ Shell USA (@Shell USA), X (Dec. 20, 2017, 2:45 AM), https://twitter.com/Shell_USA/status/943401985193242625.

Carbon Solution Now.”²¹⁷ The front page of Chevron’s website, as of September 8, 2023, features “renewable diesel,”²¹⁸ and another page on its website touts biofuels used on ships²¹⁹ and an ad campaign linking to that page.²²⁰ The page says, “Biofuels can quickly change transportation sectors for the better. When used as a marine fuel, biofuels can reduce greenhouse gas (GHG) emissions on a lifecycle analysis.” Similarly, BP claims in ads that “We’re making motor oil that’s 25 [percent] sugarcane based” to “make energy cleaner and better.”²²¹

175. ExxonMobil has numerous advertisements touting its biofuel development while omitting the fact that the company spent only 0.2 percent of its capital investments on bioenergy from 2010 to 2018.²²² Exxon’s investment in potential renewable fuels, such as biofuels, has been miniscule compared to its overall profits and to its investments in developing and expanding its fossil fuels business. One analysis comparing Exxon’s advertised goal of producing 10,000 barrels of biofuels per day by 2025 to Exxon’s fossil fuel refinery operations found that the goal for biofuel production would amount to only 0.2 percent of Exxon’s refinery capacity, as reported in 2019—in essence, a rounding error. Also, Exxon’s advertisements touting the development of biofuels

²¹⁷ *Endura Fuels: A Simple Lower Carbon Solution Now*, CHEVRON RENEWABLE ENERGY GRP. <https://www.regi.com/> (last visited Mar. 15, 2024).

²¹⁸ *Advancing energy progress*, CHEVRON, <https://www.chevron.com/> (last visited Mar. 15, 2024); see also Chevron, *Energy Everywhere: Renewable Diesel – Episode 2*, YOUTUBE <https://www.youtube.com/watch?v=8VToz7w4uRg&t=6s> (last visited Mar. 15, 2024) (video embedded on front page).

²¹⁹ *Biofuels steer into maritime sector*, CHEVRON (July 5, 2023), https://www.chevron.com/newsroom/2023/q3/biofuels-steer-into-maritime-sector?utm_source=facebook&utm_medium=social&utm_campaign=corporate.

²²⁰ Chevron, *Biofuels Steer into Maritime Sector*, FACEBOOK AD LIBR., <https://www.facebook.com/ads/library/?id=1241282153250811> (last visited Mar. 15, 2024).

²²¹ BP America, *Possibilities Everywhere*, FACEBOOK AD LIBR., <https://www.facebook.com/ads/library/?id=353302112007843> (last visited Mar. 15, 2024).

²²² Anjali Raval & Leslie Hook, *Oil and gas advertising spree signals industry’s dilemma*, FIN TIMES, (March 6, 2019), <https://www.ft.com/content/5ab7edb2-3366-11e9-bd3a-8b2a211d90d5>.

from plant waste substantially overplayed the likely environmental benefits by failing to acknowledge the intensive energy required to process that plant waste, which would create substantial additional GHG emissions. In recent years, Exxon has quietly abandoned its investments in developing algae as a biofuel, but Exxon continues to invest in its development of fossil fuels, as it has done for decades.

176. Exxon regularly advertises its efforts to capture and store carbon, leaving consumers, including those in Bucks County, with the impression that Exxon does this to benefit the climate. Exxon does not disclose that the massive energy required to capture that carbon is powered by fossil fuels emitting more greenhouse gasses into the air.²²³ Further, nearly all the carbon Exxon has captured was not simply stored, but instead used to drill for more oil.

177. Defendants also regularly portray themselves and their businesses as sustainable, healthy, or compatible with a low carbon economy, and style themselves as corporate leaders in developing and providing non-fossil energy systems, such as solar, wind, and biofuels, and in lowering greenhouse gas emissions. But in reality, these companies' capital investments in non-fossil energy systems are extremely low compared to their investments in fossil fuel production—and are much lower than implied to consumers in advertisements. For example, from 2010 to 2018,

- BP spent only 2.3 percent of its capital investments on low-carbon energy sources;
- Chevron 0.2 percent (0.1 percent of which was in carbon capture, utilization, and storage);
- ConocoPhillips 0.0 percent;

²²³ Nicholas Kusnetz, *Exxon's Long-Shot Embrace of Carbon Capture in the Houston Area Just Got Massive Support from Congress*, INSIDE CLIMATE NEWS (Sept. 25, 2022), <https://insideclimatenews.org/news/25092022/exxon-houston-ship-channel-carbon-capture/>.

- ExxonMobil 0.2 percent; and
- Shell 1.2 percent (0.3 percent of which was in carbon capture, utilization, and storage).²²⁴

178. There is little evidence that those figures have increased since 2018.²²⁵ On the contrary, Defendants are ramping up fossil fuel production. Exxon is projected to increase oil production by more than 35 percent between 2018 and 2030—a sharper rise than over the previous 12 years.²²⁶ Shell is forecast to increase output by 38 percent by 2030, by increasing its crude oil production by more than half and its gas production by over a quarter.²²⁷ BP is projected to increase production of oil and gas by 20 percent by 2030.²²⁸ Chevron set an oil production record in 2018 of 2.93 million barrels per day.²²⁹ A 2019 investor report touted Chevron’s “significant reserve additions in 2018” in the multiple regions in North America and around the world, as well as significant capital projects involving construction of refineries worldwide.²³⁰

²²⁴ Raval & Hook, *supra* note 222.

²²⁵ Stuart Braun, *Shell, BP boost profit, sink investment in renewable energy*, DW (Feb. 10, 2023), <https://www.dw.com/en/shell-bp-boost-profit-sink-investment-in-renewable-energy/a-64656800>; Lauren Kent, *Big oil companies are spending millions to appear 'green.' Their investments tell a different story, report shows*, CNN (updated Sept. 8, 2022, 11:09 AM EDT), <https://www.cnn.com/2022/09/07/energy/big-oil-green-claims-report-climate-intl/index.html>.

²²⁶ Jonathan Watts et al., *Oil firms to pour extra 7m barrels per day into markets, data shows*, THE GUARDIAN (Oct. 10, 2019, 7:00 EDT), <https://www.theguardian.com/environment/2019/oct/10/oil-firms-barrels-markets>.

²²⁷ *Id.*

²²⁸ *Id.*

²²⁹ Kevin Crowley & Eric Roston, *Chevron Aligns Strategy With Paris Deal But Won't Cap Output*, BLOOMBERG (updated Feb. 7, 2019, 1:29 PM EST), <https://www.bloomberg.com/news/articles/2019-02-07/chevron-pledges-alignment-with-paris-accord-but-won-t-cap-output>.

²³⁰ *Chevron 2019 Investor Presentation*, CHEVRON (Feb. 2019), <https://chevroncorp.gcs-web.com/static-files/c3815b42-4deb-4604-8c51-bde9026f6e45>.

179. Moreover, revenue and other business data from non-fossil energy systems are typically absent from fossil fuel companies' annual reports—an implicit admission that these companies do not view non-fossil energy systems as material to their business or company value. In contrast, advertisements often misleadingly portray non-fossil energy systems as a significant or predominant part of company business.

180. As part of their greenwashing efforts, Defendants have cast their businesses as committed to addressing environmental challenges like climate change, and even as leaders in efforts to mitigate climate change. In so doing, Defendants have cast their businesses—overwhelmingly dedicated to the further development, production, and sale of fossil fuels—as environmentally sustainable.

181. BP has misleadingly portrayed itself, and continues to misleadingly portray itself, as a climate leader, claiming that it aims to be a net-zero company by 2050 or sooner. Beginning in 2000, BP began a \$200 million campaign claiming it was moving “beyond petroleum” with advertisements portraying BP as predominantly invested in clean energy sources. Messages from that campaign included some projects, plans, and an overall theme that BP was going to materially reduce its emissions and transition away from petroleum. These advertisements used phrases such as, “It’s time to go on a low carbon diet,” “It’s time to pull the plug on carbon emissions,” and “It’s time to think outside the barrel,” and “New energy solutions require new schools of thought” for “finding new sources of clean and renewable energy.”²³¹

²³¹ BP PROD. N. AM. INC., NEWSWEEK (June 18, 2007).

New energy solutions require new schools of thought.

Research BP is joining with the University of California, Berkeley, the University of Illinois at Urbana-Champaign and the Lawrence Berkeley National Laboratory to establish the Energy Biosciences Institute.

Investment BP will invest \$500 million over the next ten years in the Institute, which will explore the emerging secrets of bioscience and apply them to finding new sources of clean and renewable energy.
It's a start.

bp

beyond petroleum

© 2008 BP Products North America Inc.

bp.com/us

Figure 15: BP Products North America Inc. in *Newsweek*²³²

182. BP’s “Possibilities Everywhere” campaign portrayed the company as a leader in clean energy. In its “Blade Runner” advertisement, BP claims that it is “one of the major wind energy businesses in the US.”²³³ BP’s recent Facebook advertising campaigns targeted Pennsylvania Facebook users, claiming: “To help the US meet its climate goals, federal methane

²³² *Id.*

²³³ BP’s installed wind capacity in the US is only about one percent of the market.

rules are critical. All natural gas production needs to emit less;”²³⁴ “The world demands more energy and fewer emissions. Find out how BP will tackle this dual challenge and advance the energy transition;”²³⁵ “America needs a model for carbon pricing. PA can help;”²³⁶ “From renewables to natural gas, advanced fuels to low carbon businesses, we’re working to make energy cleaner and better;”²³⁷ and “At BP, we see possibilities everywhere to make energy cleaner and better.”²³⁸

183. BP’s representations contain substantial omissions about the company’s commitment to combatting climate change. At the time of its “Blade Runner” advertisement touting itself as “one of the major wind energy businesses in the US,” BP only owned about one percent of the installed wind capacity in the U.S. Moreover, at a time of record-breaking profits, BP is scaling back its plan to lower emissions by 2030, and BP continues to make significant investments in fossil fuel production, refining, and sales.

²³⁴ BP America, *bp supports methane regulation*, FACEBOOK AD LIBR. (July 2021), https://www.facebook.com/ads/library/?active_status=all&ad_type=political_and_issue_ads&country=US&id=216888343522285&view_all_page_id=97279934919&search_type=page&media_type=all.

²³⁵ BP America, *The world demands more energy and fewer emissions*, FACEBOOK AD LIBR. (Jul. 2018), available at <https://www.facebook.com/ads/library/?id=195813711126681>.

²³⁶ BP America, *Why We Support RGGI*, FACEBOOK AD LIBR. (Mar. 2020), available at <https://www.facebook.com/ads/library/?id=814746852368273>.

²³⁷ BP America, *Home to 3 BP Wind Farms.*, FACEBOOK AD LIBR. (Jan.–Feb. 2019), available at <https://www.facebook.com/ads/library/?id=796285007382114>.

²³⁸ BP America, *Possibilities Everywhere*, FACEBOOK AD LIBR. (Jul.–Aug. 2019), available at <https://www.facebook.com/ads/library/?id=2528529190532877>.

184. In 2008, ConocoPhillips published this full-page advertisement in *The Atlantic*:



The advertisement features a large photograph of an elderly man and a young boy hiking through a forest. The man is wearing a yellow jacket and a backpack, and the boy is wearing a red jacket. They are standing on a rocky path. The text "Tomorrow begins today." is overlaid on the image. The word "Tomorrow" is in white serif font, and "begins today." is in a teal sans-serif font. Below the main image is a smaller inset image showing two people in a meeting, one pointing at a screen. To the right of the inset image is a block of text. At the bottom right is the ConocoPhillips logo and website address.

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

Figure 16: ConocoPhillips advertisement in *The Atlantic*²³⁹

185. ConocoPhillips claims that its “actions for our oil and gas operations are aligned with the aims of the Paris Agreement” and touts its actions and achievements toward the net-zero energy transition. ConocoPhillips also touts its “Net-Zero Roadmap,” which it describes as a

²³⁹ CONOCOPHILLIPS, THE ATLANTIC, July/Aug. 2008, at 61, <https://cdn.theatlantic.com/media/magazine/pdfs/200807u.pdf>.

“Paris-Aligned Climate Risk Strategy” and “a comprehensive framework with an ambition to become a net-zero company for operational emissions by 2050.”²⁴⁰ ConocoPhillips thus focuses on its “operational” emissions while ignoring that combustion of its product continues to emit large amounts of greenhouse gases.

186. In June 2023, ConocoPhillips published a profile on its Methane Measurement Manager Milind Bhatte, who it claims is helping move the company toward its goal of “net-zero.”²⁴¹

187. ConocoPhillips’ claims are contradicted by the company’s substantial investments in expanding its fossil fuel production and sales. For example, the company’s new Willow Project in Alaska is expected to produce approximately 576 million barrels of oil, with associated indirect GHG emissions equivalent to 239 million tons of CO₂.

188. Exxon has announced its ambition to achieve net-zero GHG emissions by 2050 and touts its commitment to helping society reach a lower-emissions future. Exxon has heavily promoted its investment in developing algae for use as a biofuel to reduce emissions and combat climate change. Exxon’s advertising tells consumers that Exxon is working to decrease its carbon footprint and that its research is leading toward “A Greener Energy Future. Literally.”²⁴² Exxon’s numerous advertisements, including in Pennsylvania newspapers, touting its biofuel development

²⁴⁰ *Paris-Aligned Climate Risk Strategy*, CONOCOPHILLIPS, <https://www.conocophillips.com/> (last visited Mar. 15, 2024); *Operational Net-Zero Roadmap*, CONOCOPHILLIPS <https://www.conocophillips.com/sustainability/low-carbon-technologies/operational-net-zero-roadmap/> (last visited Mar. 15, 2024).

²⁴¹ Gus Morgan, *Milind Bhatte: Progressing toward net-zero*, CONOCOPHILLIPS (June 27, 2023) 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.

²⁴² ExxonMobil, *The Future of Energy? It May Come From Where You Least Expect*, N.Y. TIMES <https://www.nytimes.com/paidpost/exxonmobil/the-future-of-energy-it-may-come-from-where-you-least-expect.html> (last visited Mar. 15, 2024).

hide the fact that the company spent only 0.2% of its capital investments on bioenergy from 2010–2018.²⁴³ Even if Exxon were to scale up biofuel production as advertised to 10,000 barrels per day by 2025, it would still represent only 0.2% of the company’s fossil fuel refining activity—much lower than implied to consumers.²⁴⁴

189. Chevron claims that it “is committed to addressing climate change” and touts its intentions to invest billions of dollars in carbon reduction projects, as well as its net-zero “aspirations.” And Chevron’s director states in a 2021 report, “We believe the future of energy will be lower carbon, and we intend to be a leader in that future.”²⁴⁵ Its CEO claims that Chevron’s “work to create fuels of the future—like hydrogen, renewable diesel, and sustainable aviation fuel—seeks to lower the carbon intensity of these products and support our customers’ efforts to reduce their greenhouse gas emissions.”²⁴⁶ Chevron representatives have even delivered public seminars at top educational institutions, deceptively claiming Chevron uses its “unique capabilities, assets and expertise to deliver progress” toward the global ambition of achieving net-zero carbon emissions.

190. Chevron’s website contains a page titled, “explainer: what is carbon intensity?”²⁴⁷ The page states that “Chevron’s upstream carbon intensity (UCI) metric is used to measure the

²⁴³ Raval & Hook, *supra* note 222.

²⁴⁴ *ExxonMobil announces 2023 results*, EXXONMOBIL (Feb. 2, 2024) https://corporate.exxonmobil.com/news/news-releases/2024/0202_exxonmobil-announces-2023-results.

²⁴⁵ Roderick Green, *Energy Transition Spotlight*, CHEVRON (Sept. 14, 2021) <https://chevroncorp.gcs-web.com/static-files/1ba3162e-f798-444b-9368-fc7b4ab7842a#page=5>.

²⁴⁶ *Climate change resilience: Advancing a lower carbon future*, CHEVRON, at 1 (2021) <https://www.chevron.com/-/media/chevron/sustainability/documents/2021-climate-change-resilience-report.pdf#page=3>.

²⁴⁷ *Explainer: What is Carbon Intensity*, CHEVRON (Nov. 22, 2022) <https://www.chevron.com/newsroom/2022/q4/explainer-what-is-carbon-intensity>.

emission intensity of oil and gas production.,” and, “To date, [Chevron] ha[s] identified nearly 100 potential projects to further lower [its] greenhouse gas intensity.” This page is misleading because it suggests that Chevron is working to lower the greenhouse gas emissions associated with production of its products, while ignoring that post-production, the combustion of oil and gas in its intended uses creates huge amounts of greenhouse gas emissions.

191. Chevron’s minimal efforts in the area of renewable and lower-carbon energy, coupled with its expansion of its fossil fuel business, belie its statements suggesting that it is part of the climate change solution. Chevron in fact sold its only renewable energy holding in 2018. Moreover, from 2010 to 2018, according to one analysis, Chevron’s investments in low-carbon energy sources were only 0.2 percent of Chevron’s capital spending, compared to 99.8 percent in continuing its fossil fuel exploration and development.²⁴⁸ Chevron to this day continues to prioritize capital expenditures in its traditional fossil fuel business over its investments in renewable and low-carbon energy.

192. Shell also falsely portrays itself to consumers, including in Bucks County, as part of the climate solution. Shell claims that it aims to become a net-zero emissions²⁴⁹ energy business by 2050, and that it is “tackling climate change.” Shell has a webpage, and a report co-written by Deloitte, on “Decarbonizing Construction.”²⁵⁰

193. One of Shell’s public relations firms described the intent of Shell’s Make The Future campaign, stating: “As part of their efforts to make consumers, particularly millennials,

²⁴⁸*Greenwashing Files: Chevron*, CLIENTEARTH, <https://www.clientearth.org/projects/the-greenwashing-files/chevron/> (last visited Mar. 15, 2024).

²⁴⁹ “Net-zero” means achieving a balance between the carbon emitted into the atmosphere, and the carbon removed from it.

²⁵⁰ *Decarbonizing Construction: Building a Low-Carbon Future*, SHELL <https://www.shell.com/business-customers/construction-and-road/decarbonising-construction.html> (last visited Mar. 15, 2024).

aware of their commitment to cleaner energy, Shell launched the #makethefuture campaign. The company tasked Edelman with the job of giving millennials a reason to connect emotionally with Shell’s commitment to a sustainable future. We needed them to forget their prejudices about ‘big oil’ and think differently about Shell.”²⁵¹

194. Shell’s 2016 #makethefuture advertising campaign targets young people and misleadingly portrays the company as heavily engaged in developing and selling clean energy sources.²⁵²

195. In reality, however, Shell spent only 1.3 percent of its capital investments in low carbon energy systems from 2010 to 2018.²⁵³ Shell planned to spend four times more money on oil and gas development than on renewable technology in 2022.²⁵⁴ In the first half of 2023, Shell reported \$11.6 billion in total spending, of which less than one billion went to renewables and “energy solutions”—a category that also includes fossil fuel investments, such as marketing and trading of pipeline gas. Independent analysis of Shell’s spending plans shows that the company will be emitting *more* greenhouse gas by 2030 than it currently emits.²⁵⁵ On its current trajectory, Shell is projected to miss its emissions reduction targets for both 2030 and 2050.²⁵⁶

196. In June 2023, the U.K.’s Advertising Standards Authority banned Shell’s marketing campaign describing Shell as providing renewable energy, installing electric vehicle charging, and

²⁵¹ *Shell: South Pole Energy Challenge*, EDELMAN, <https://archive.ph/IZ8Qz> (last visited Mar. 15, 2024).

²⁵² See Graham Readfearn, *Hey millennials, don’t fall for Shell’s pop star PR*, THE GUARDIAN (April 25, 2018, 1:28 EDT), <https://www.theguardian.com/environment/planet-oz/2018/apr/25/hey-millennials-dont-fall-for-shells-pop-star-pr>.

²⁵³ Raval & Hook, *supra* note 222.

²⁵⁴ 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>.

²⁵⁵ *Id.*

²⁵⁶ *Id.*

driving the energy transition. The Advertising Standards Authority found consumers were likely to interpret the marketing materials as making a “broader claim about Shell as a whole providing cleaner energy.” Since the “vast majority” of its operations was not clean energy, the campaign was misleading.²⁵⁷

197. API markets itself as being an environmental steward, committed to helping reduce GHG emissions. API’s 2021 Climate Action Framework portrays the organization as a partner in moving towards a climate solution, stating: “Our industry is essential to supplying energy that makes life modern, healthier and better while doing so in ways that tackle the climate challenge: lowering emissions, increasing efficiency, advancing technological innovation, building modern infrastructure and more.”²⁵⁸ As part of this campaign, API has offered on its website, in social media posts, and in other advertisements that have reached residents of Bucks County and Pennsylvania, the image on the following page, of lush greenery and a message that “88 [percent] of Americans favor energy companies helping meet environmental challenges.” API elaborates within the advertisement that “natural gas and oil [] powers and supports modern living . . . with lower emissions.”

²⁵⁷ Ed Davey, *Shell's clean energy advertising campaign is misleading, UK watchdog says*, AP NEWS (June 7, 2023, 11:50 AM EDT), <https://apnews.com/article/shell-climate-ad-ban-clean-energy-a1322233e3ba7e8fa7760367f13dd58c>.

²⁵⁸ *Climate Action Framework*, API at 5 (2021) <https://www.api.org/-/media/files/ehs/climate-change/2021/api-climate-action-framework.pdf#page=3>.

Energy For A Cleaner Environment



Figure 17: API, We Are America's Generation Energy²⁵⁹

198. In 2017, API launched an advertising campaign called “Power Past Impossible,” which portrayed the oil and gas industry as a sustainable, healthy, and an essential part of societal progress.²⁶⁰ API President and CEO Jack Gerrard misleadingly stated that “greenhouse gas emissions . . . are near 25 year lows,” when greenhouse gas emissions globally were in fact increasing, and total greenhouse gas emissions in the U.S. (including methane, not just carbon

²⁵⁹ *Id.*

²⁶⁰ See American Petroleum Institute, *API launches Power Past Impossible campaign during Super Bowl showing natural gas and oil benefit to consumers in everyday life*, PR NEWswire (Feb. 5, 2017, 18:32 PM ET) <https://www.prnewswire.com/news-releases/api-launches-power-past-impossible-campaign-during-super-bowl-showing-natural-gas-and-oil-benefit-to-consumers-in-everyday-life-300402321.html>.

dioxide) had not been shown to decline as claimed.²⁶¹ The campaign’s opening advertisement, which aired nationally during the Superbowl, stated: “Oil pumps life. Oil runs cleaner.” The advertisement ignored, however, the climate and public health harms caused by oil.²⁶² And as of July 21, 2020, the Power Past Impossible website described oil as “Energy for a Cleaner Environment.” In touting the environmental benefits of oil, the website also made the following false or misleading assertions: “This is Energy for a Cleaner Environment,” “99 [percent] Fewer Vehicle Emissions,” and “Cleanest Air in More Than a Decade.”²⁶³ In 2020 API launched a nationwide advertising campaign called “Energy for Progress,” which portrays the oil and gas industry as a leader in reducing greenhouse gas emissions.²⁶⁴ The opening advertisement for the campaign states that “natural gas and oil companies have . . . reduced carbon emission levels to the lowest in a generation.”²⁶⁵ Similarly, in a September 2023 Twitter post, API stated “American natural gas & oil is committed to creating climate solutions.”²⁶⁶

199. The Energy for Progress website also contains advertisements such as “Five Ways We’re Helping to Cut Greenhouse Gas Emissions,” which misleadingly portrays the oil and gas

²⁶¹ *Id.*

²⁶² American Petroleum Institute (@powerpastimpossible), *Oil: Power Past Impossible*, YOUTUBE (Feb. 4, 2017), <https://www.youtube.com/watch?v=w4KvOJlu5Xo>.

²⁶³ See *Energy for a Cleaner Environment*, POWER PAST IMPOSSIBLE <https://web.archive.org/web/20200602111024/https://powerpastimpossible.org/state-of-american-energy/energy-for-a-cleaner-environment/> (last visited Mar. 15, 2024).

²⁶⁴ See *API Launches New National Campaign ‘Energy for Progress’, Highlights U.S. Energy Leadership in Annual State of American Energy Event*, API (Jan. 7, 2010), <https://www.api.org/news-policy-and-issues/news/2020/01/07/soae-2020-release>.

²⁶⁵ See API, *Solving Big Challenges Requires Energy*, YOUTUBE (Jan. 7, 2020), <https://www.youtube.com/watch?v=87ObTFn68ic&feature=youtu.be>.

²⁶⁶ American Petroleum Institute (@APIenergy), X (Sept. 5, 2023, 12:25 PM) <https://twitter.com/APIenergy/status/1699111447593210289>.

industry as an environmental leader by focusing on marginal improvements in operational emissions while ignoring the much greater emissions from the industry's products.²⁶⁷



Figure 18: API advertisement from its Energy for Progress campaign, used as the campaign's Facebook banner.²⁶⁸

200. Tellingly, however, API's strategy does not advocate for or even mention reduction in fossil fuel production as a strategy to protect the climate. Rather, it focuses on potential technical advances and shifting to heavier reliance on natural gas as a "clean fuel." And an internal API email shows that its Climate Action Framework was in fact organized around the purpose of "the continued promotion of natural gas in a carbon constrained economy."²⁶⁹ As discussed above, natural gas is far from a "clean" fuel, as API misleadingly claims, as natural gas production and

²⁶⁷ See *Five Ways We're Helping to Cut Greenhouse Gas Emissions*, ENERGY FOR PROGRESS (Apr. 17, 2020), <https://energyforprogress.org/article/five-ways-were-helping-to-cut-greenhouse-gas-emissions/>.

²⁶⁸ *Energy for Progress* (photograph), FACEBOOK, <https://www.facebook.com/energyforprogress> (last visited Mar. 22, 2024).

²⁶⁹ See *Oversight Committee Releases New Documents Showing Big Oil's Greenwashing Campaign and Failure to Reduce Emissions*, U.S. HOUSE COMM. ON OVERSIGHT & ACCOUNTABILITY: DEMOCRATS (Dec. 9, 2022), <https://oversightdemocrats.house.gov/news/press-releases/oversight-committee-releases-new-documents-showing-big-oil-s-greenwashing#:~:text=Ro%20Khanna%2C%20Chairman%20of%20the, failure%20to%20meaningfully%20reduce%20emissions.>

use contributes substantially to climate change through the release of methane, an extremely potent greenhouse gas.

201. API’s misinformation campaign has and continues to target Pennsylvania and Bucks County residents. API consistently lobbies Pennsylvania’s politicians to advance its agenda,²⁷⁰ and API has and continues to finance advertisements targeting Pennsylvania consumers, including: “Domestically produced energy delivers consumer savings and climate solutions in Pennsylvania and across the U.S.,”²⁷¹ “Pennsylvania’s natural gas industry plays a central role in advancing U.S. energy leadership and environmental progress.,”²⁷² “We need bipartisan support for natural gas if we want to keep our economy growing, energy rates down and movement in the right direction toward a cleaner energy future.,”²⁷³ and “Using the most advanced technology, more natural gas is being produced with less of an environmental footprint. In fact, increased usage of natural gas has made our air the cleanest it’s been in 25 years.”²⁷⁴

²⁷⁰ Aly Shaw “The American Petroleum Institute Loves Pennsylvania, As Its Lobbying Shows,” EYES ON THE TIES (May 22, 2023), <https://news.littleisis.org/2023/05/22/the-american-petroleum-institute-loves-pennsylvania-as-its-lobbying-shows/>.

²⁷¹ Energy Citizens (Paid for by American Petroleum Institute) “Powering PA’s Economy,” FACEBOOK AD LIBR. (Mar.–May, 2021) <https://www.facebook.com/ads/library/?id=275225560746448>.

²⁷² Energy Citizens (Paid for by American Petroleum Institute) “Powering Climate Progress,” FACEBOOK AD LIBR. (Mar.–May, 2021) <https://www.facebook.com/ads/library/?id=447345459815817>.

²⁷³ Energy Citizens (Paid for by American Petroleum Institute) “Time to pay attention as Pa. gets closer to climate goals,” FACEBOOK AD LIBR. (Sept.–Oct., 2020) <https://www.facebook.com/ads/library/?id=697622700831999>.

²⁷⁴ Energy Citizens (Paid for by American Petroleum Institute), “No Severance Tax!,” FACEBOOK AD LIBR. (Apr. 2019) <https://www.facebook.com/ads/library/?id=1012524255803992>.

H. Defendants' Concealments and Misrepresentations Regarding the Dangers of Fossil Fuel Products Encouraged Continued Use of Fossil Fuels and Discouraged Concerted Action on Greenhouse Gas Emissions.

202. Consumer use of fossil fuel products is a significant contributor to climate change. As a result of Defendants' sustained and widespread campaign of disinformation, many Bucks County and Pennsylvania consumers have been unaware of the magnitude of the threat posed by their use of fossil fuels, or of the relationship between their purchasing behavior and climate change.

203. For example, Edelman, the PR firm hired by Shell to carry out its #makethefuture campaign, found that as a result of the campaign, "Audience members are 31 [percent] more likely to believe Shell is committed to cleaner fuels" and "Positive attitudes towards the brand increased by 12 [percent]."²⁷⁵

204. As a result of Defendants' efforts to deny and undermine climate science and conceal the dangers of fossil fuel consumption, Defendants encouraged consumers to continue to use fossil fuels. As a result of Defendants' sustained and widespread campaign of disinformation, many Bucks County and Pennsylvania consumers have been unaware of the strength of the scientific consensus about the relationship between consumption of fossil fuels and climate change, the magnitude of the threat posed by their own use of fossil fuels, or of the contribution their purchasing behavior makes to aggravating the effects of climate change.

205. In addition to Defendants misleading Bucks County consumers by affirmatively misrepresenting the state of their and the scientific community's knowledge of climate change and by failing to disclose the dangerous effects of using their products, Defendants have sought to mislead consumers, and induce purchases and brand affinity, with greenwashing advertisements

²⁷⁵ *Shell: South Pole Energy Challenge*, *supra* note 251.

designed to represent Defendants as environmentally responsible companies developing innovative green technologies and products. In reality, however, Defendants' business models continue to center on developing, producing, and selling more of the very same fossil fuel products driving climate change.

206. By misleading Bucks County consumers about the climate impacts of using fossil fuel products, and by failing to disclose the climate risks associated with their purchase and use of those products, Defendants deprived consumers, including those in Bucks County, of information about the consequences of their purchasing decisions. This led to consumers using more fossil fuels, and using fossil fuels less efficiently, than they otherwise would have done in the absence of Defendants' deception.

207. Recent studies and surveys have found that consumers with substantial awareness of climate change are "concerned about climate change, and a majority expect fellow Americans to be willing to change their consumption habits as a result."²⁷⁶ Similarly, informed consumers often attempt to contribute toward solving environmental problems by supporting companies that they perceive to be developing "green" or more environmentally friendly products.²⁷⁷ These studies demonstrate that some Bucks County consumers who received accurate information that fossil fuel use was a primary driver of climate change, and about the resultant dangers to the

²⁷⁶ *Changes in Consumers' Habits Related to Climate Change May Require New Marketing and Business Models*, THE CONF. BD. (Oct. 26, 2022), <https://www.conference-board.org/topics/consumers-attitudes-sustainability/changes-in-consumer-habits-related-to-climate-change>.

²⁷⁷ See Anthony Leiserowitz et al., *Consumer Activism on Global Warming*, YALE PROGRAM ON CLIMATE CHANGE COMM'N, at 3 (Sept. 2021), <https://climatecommunication.yale.edu/wp-content/uploads/2021/12/consumer-activism-on-global-warming-september-2021.pdf> (about a third of American consumers surveyed report "reward[ing] companies that are taking steps to reduce global warming by buying their products" and "punish[ing] companies that are opposing steps to reduce global warming by not buying their products.").

environment and to public health, would have decreased their use of fossil fuel products and/or demanded lower-carbon transportation and product options.

208. As described herein, by casting doubt upon the scientific consensus on climate change, Defendants deceived Bucks County consumers about the relationship between consumption of fossil fuels and climate change, and the magnitude of the threat posed by fossil fuel use. Bucks County consumers equipped with complete and accurate knowledge about the climate and the public health effects of continued consumption of fossil fuels would have likely formed a receptive customer base for clean energy alternatives decades before such demand in fact developed. Instead, Defendants' campaign of deception allowed them to exploit public uncertainty to reap substantial profits.

I. The Effects of Defendants' Deceit Are Ongoing.

208. The consequences of Defendants' tortious misconduct—in the form of misrepresentations, omissions, and deceit—began decades ago, and continue to be felt to this day. As described above, Defendants, directly and/or through membership in other organizations, misrepresented their own activities, the fact that their products cause climate change, and the danger presented by climate change.

209. Defendants' collective goal was to ensure that “[a] majority of the American public, including industry leadership, recognizes that significant uncertainties exist in climate science, and therefore raises questions among those (e.g. Congress) who chart the future U.S. course on global climate change.”²⁷⁸ In 2023, only 20 percent of Americans understand how strong the level of

²⁷⁸ Joe Walker, *Email to Global Climate Science Team re Draft Global Climate Science Communications Plan* (Apr. 3, 1998), <https://assets.documentcloud.org/documents/784572/api-global-climate-science-communications-plan.pdf>.

consensus is among scientists that human-caused global warming is happening, and 28 percent think climate change is caused mostly by natural changes in the environment.²⁷⁹

210. Defendants' misrepresentations, omissions, and deceit had a significant and long-lasting effect on how the public views climate change and the dangers of fossil fuel use that continues to the present day. By sowing doubt in the minds of the public, Defendants substantially altered the public discourse on climate change, and intentionally delayed action on climate change.

211. If Defendants had been forthcoming about their own climate research and understanding of the dangers of fossil fuel products, consumers and the public could have made substantial progress in transitioning to a lower-carbon economy, at a much earlier time, potentially averting some of the effects of the climate crisis that Bucks County is experiencing today.

212. The fact that Defendants and their proxies knowingly provided incomplete and misleading information to the public, including to Bucks County consumers, only recently became discoverable due to, among other things:

- a. Defendants' above-described campaign of deception, which continues to this day;
- b. Defendants' efforts to discredit climate change science and create the appearance that such science is uncertain;
- c. Defendants' concealment and misrepresentations regarding the fact that their products cause catastrophic harms; and
- d. Defendants' use of front groups such as API, the Global Climate Coalition, and the National Mining Association to obscure their involvement in these actions.

²⁷⁹ Anthony Leiserowitz et al., *Climate Change in the American Mind*, YALE PROGRAM ON CLIMATE CHANGE COMMUN (Spring 2023), <https://climatecommunication.yale.edu/wp-content/uploads/2023/09/climate-change-american-mind-beliefs-attitudes-spring-2023.pdf>.

213. By concealing the very fact of their campaign of deception, including by using front groups to obscure their own involvement in the deception, Defendants concealed their unlawful conduct from the public and the County, thereby preventing it from discovering the facts underlying the claims alleged herein.

J. Bucks County Has Suffered, Is Suffering, and Will Continue to Suffer Injuries from Defendants' Wrongful Conduct.

214. Bucks County has already suffered negative environmental and physical consequences of climate change. Severe weather caused by climate change and destabilization has damaged the County's natural resources, and the County has incurred, and will incur, significant costs to withstand increased more frequent and intense storms, flooding, storm surge, rising waters in the tidal Delaware and Schuylkill Rivers, saltwater intrusion, droughts, and extreme heat events.

215. The County is committed to protecting Bucks County residents from the damaging effects of climate change on the County and its residents.

Increased Severe Storms and Changing Rainfall Patterns

216. On July 12, 2021, a severe storm in Bucks County resulted in what the National Weather Service deemed to be a 100-year flood after areas in Lower Bucks County received 8-10 inches of rain over approximately 3-4 hours.²⁸⁰

²⁸⁰Peg Quann & Christopher Dornblaser, *Lower Bucks County hit with '100-year flood' as Bristol, Bensalem and Croydon residents forced out of homes*, BUCKS COUNTY COURIER TIMES (updated July 14, 2021, 1:20 PM), <https://www.phillyburbs.com/story/news/2021/07/13/lower-bucks-county-100-year-flood-bensalem-croydon-summer-storm/7948033002/>; Crissa Shoemaker-DeBree, *How much rain did Bucks County get in 100-year flood?*, BUCKS COUNTY COURIER TIMES (updated July 13, 2021, 12:46 PM), <https://www.phillyburbs.com/story/news/2021/07/13/croydon-bristol-bensalem-storm-flooding-rain-totals-bucks-county-get-100-year-flood-weather/7951995002/>.

217. The July 12, 2021 flood severely damaged approximately 500 homes.²⁸¹ “An estimated 100 homes incurred damage considered to be ‘major,’ as defined by Federal Emergency Management Agency guidelines.”²⁸² Many of the damaged homes were located in low-income areas of the County.

218. On September 1, 2021, a powerful storm brought by the remnants of Hurricane Ida “dumped 4 to 8 inches of rain countywide, and more than 10 inches in some places.”²⁸³

219. The September 1, 2021 storm resulted in more than \$12.5 million of damage to public infrastructure.²⁸⁴

220. On July 15, 2023, a severe storm in Bucks County resulted in approximately 7 inches of rainfall in just 45 minutes.²⁸⁵ In just two hours, the County received approximately the

²⁸¹ Jo Ciavaglia, *State makes over \$1.5 million in aid available to July flood victims in Bucks County. Here's how to get help*, BUCKS COUNTY COURIER TIMES (updated Sep. 15, 2021, 4:07 PM), <https://www.phillyburbs.com/story/news/2021/09/15/bucks-county-july-flood-victims-pennsylvania-weather-bensalem-lafayette-gardens-bristol-weather/8334016002/>.

²⁸² Press Release, Bucks County, Commissioners Declare Disaster Emergency in Flooded Lower Bucks Communities (July 15, 2021), <https://www.buckscounty.gov/CivicAlerts.aspx?AID=108>.

²⁸³ Press Release, Bucks County, Ida Brings Heavy rains to all of Bucks, River Flooding Remains a Threat, <https://www.buckscounty.gov/CivicAlerts.aspx?AID=190>,

²⁸⁴ Danielle Camilli, *Bucks County infrastructure took \$12.5M hit in Ida damages; Montco announces relief fund*, BUCKS COUNTY COURIER TIMES (Sep. 15, 2021, 3:49 PM), <https://www.phillyburbs.com/story/news/2021/09/15/bucks-county-infrastructure-remnants-hurricane-ida-fema-bridges-roads-montgomery-county-relief-fund/8349624002>.

²⁸⁵ Brittany Shammass et al., *Pennsylvania flooding leaves 5 dead, 2 missing after cars are washed away*, WASHINGTON POST (July 16, 2023, 11:08 AM EDT), <https://www.washingtonpost.com/weather/2023/07/16/flash-flooding-bucks-county-pa/>.

same amount of precipitation that would typically fall in the entire month of July.²⁸⁶ The sudden and torrential precipitation resulted in a deluge that tragically killed at least seven people.²⁸⁷

221. According to one local report, “‘We’ll be seeing these more frequently as time moves on,’ said Jonathan Gourley, a research hydrometeorologist at the NOAA National Severe Storms Laboratory. ‘What we used to think were very rare events are going to become more common.’”²⁸⁸

222. The report further states that:

Heavy downpours have become more common and intense across the United States in recent decades, especially in the Northeast. Warmer air can hold more water vapor, so climate change means an increased risk of extreme rain.

‘The rain is falling heavier,’ said Lauren Casey, a meteorologist with the research nonprofit Climate Central. ‘It’s falling faster, it’s falling harder, and it’s accumulating more quickly.’

The fast pace of extreme rainfall events makes them more dangerous, Casey said.

‘More rain falling faster reduces that time for the National Weather Service to issue flash flood warnings and for people to get out of harm’s way,’ Casey said.²⁸⁹

223. The increase in severe storms is also resulting in an increasing number of tornadoes.

“Data collected by the National Weather Service since the 1950s shows Bucks County averaging one tornado every three years. Only 11 tornadoes were reported in Bucks County between 1970 and 1999. Nine were spotted in Bucks County in the last three years.”²⁹⁰

²⁸⁶ Sophia Schmidt, *Climate scientists say extreme rain behind deadly Bucks County flood is becoming more frequent*, WHY Y (July 18, 2023), <https://why.org/articles/climate-scientists-say-extreme-rain-behind-deadly-bucks-county-flood-is-becoming-more-frequent/>.

²⁸⁷ David Chang et al., *Timeline and victims of the deadly Bucks County flood*, NBC 10 PHILA. (updated July 26, 5:03 PM), <https://www.nbcphiladelphia.com/news/local/what-we-know-about-the-bucks-county-flood-victims/3607167/>.

²⁸⁸ Schmidt, *supra* note 286.

²⁸⁹ *Id.*

²⁹⁰ James McGinnis, *Forecasters: Bucks should prepare for another summer of tornadoes, storms and flash floods*, BUCKS COUNTY COURIER TIMES (June 16, 2022 10:00 PM),

224. The Mid-Atlantic Regional Integrated Sciences and Assessments (“MARISA”) program “was established in September 2016 through a five-year grant from the National Oceanic and Atmospheric Administration (NOAA). In 2021, MARISA received a second five-year grant to continue and expand [their] work. MARISA supports integrated, flexible processes for building adaptive capacity to climate variability and change in diverse Mid-Atlantic regional and subregional settings.”²⁹¹

225. MARISA has created a Community Climate Outlook for Bucks County (MARISA Outlook” or “Outlook”). In the Outlook, MARISA notes that, “[h]eavy rainfall in Bucks County is increasing in frequency and intensity, causing flash floods, property damage, septic backups, mold and indoor air quality issues, and impacts to water quality in the Delaware and Schuylkill Rivers. Annual rainfall in Bucks County will likely increase by an average of 2 to 4 inches (2050-2079 average compared to the 1990-2019 average).”²⁹²

226. The graph below “shows the change in annual rainfall compared to the average between 1990 and 2019.”²⁹³ The graph depicts two scenarios, or plausible representations of future events. The high emissions scenario “assumes continued increase of fossil fuel emissions, with no mitigation.”²⁹⁴ The lower-emissions scenario “is a scenario where we tackle the issue of emissions head-on by responsibly using our natural resources and implementing strategies that begin to

<https://www.phillyburbs.com/story/news/2022/06/17/bucks-county-tornadoes-tropical-storms-and-severe-weather-to-continue/65359579007/>.

²⁹¹ *About, MARISA*, <https://www.midatlanticrisa.org/about.html> (last visited Mar. 12, 2024).

²⁹² *Community Climate Outlook – Bucks County, PA*, MARISA, https://www.marisa.psu.edu/misc/outlooks/2022-01-11/PA/Bucks_County_PA.pdf (Apr. 26, 2022).

²⁹³ *Id.*

²⁹⁴ *Id.*

reduce global fossil fuel emissions by 2050, stabilizing carbon dioxide concentrations before 2100.”²⁹⁵

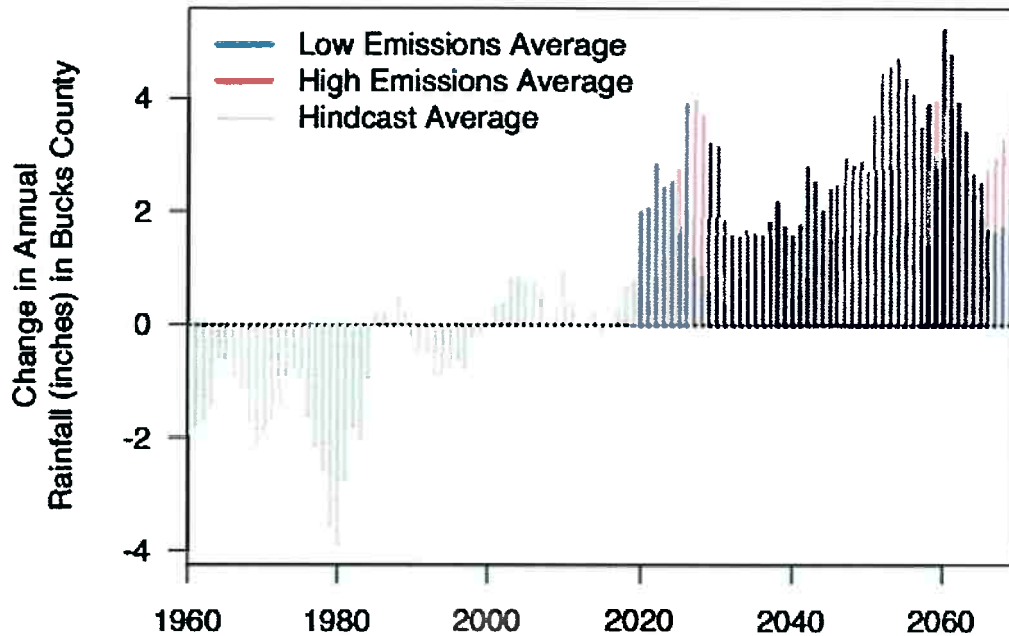


Figure 19²⁹⁶

227. The County has and will incur substantial costs to increase the County’s resiliency to extreme storm and precipitation events. Some of these measures include, but are not limited to, developing and maintaining critical infrastructure and flood mitigation measures, such as bridge maintenance and dam upgrades.

Sea Level Rise

228. The MARISA Outlook notes that sea level rise has and will impact Bucks County. “As temperatures warm, land ice melts and seawater expands causing sea levels to rise around the world and water levels to rise in the tidal Delaware and Schuylkill Rivers. Between 1950 and 2019, water levels near Bucks County rose roughly 0.8 feet leading to more frequent and severe flooding.

²⁹⁵ *Id.*

²⁹⁶ *Id.*

Water levels will rise 0.8 to 1.7 feet above the 2000-2004 average in the next 30 years (by the 2050s), submerging property, damaging infrastructure, and pushing the salt line upriver.”²⁹⁷

229. “Rising sea levels allow tides, waves, and severe flooding to push further upriver. This causes more frequent high tide flooding and increases the impacts of storm surge, putting low-lying housing, commercial property, and infrastructure at risk.”²⁹⁸

230. The County has and will incur costs in remediating and mitigating residential flooding, particularly in supporting its most vulnerable residents.

231. “As saltwater from sea level rise pushes further upstream, it threatens drinking water and stormwater infrastructure. Saltwater intrusion can force municipalities to abandon sources of drinking water and reduces the lifespan and performance of stormwater infrastructure.”²⁹⁹

232. The graph below “shows the projected change of sea level in feet above mean sea level relative to the 2000-2004 average. The dark blue shading shows the middle range (25 to 75% probability) and the light blue shading shows the low to high range (10 to 90% probability) of sea level rise as 30-year averages that are used for official planning purposes in the Philadelphia region. Dots show the observed changes in water level in Philadelphia.”³⁰⁰

²⁹⁷ *Id.*

²⁹⁸ *Id.*

²⁹⁹ *Id.*

³⁰⁰ *Id.*

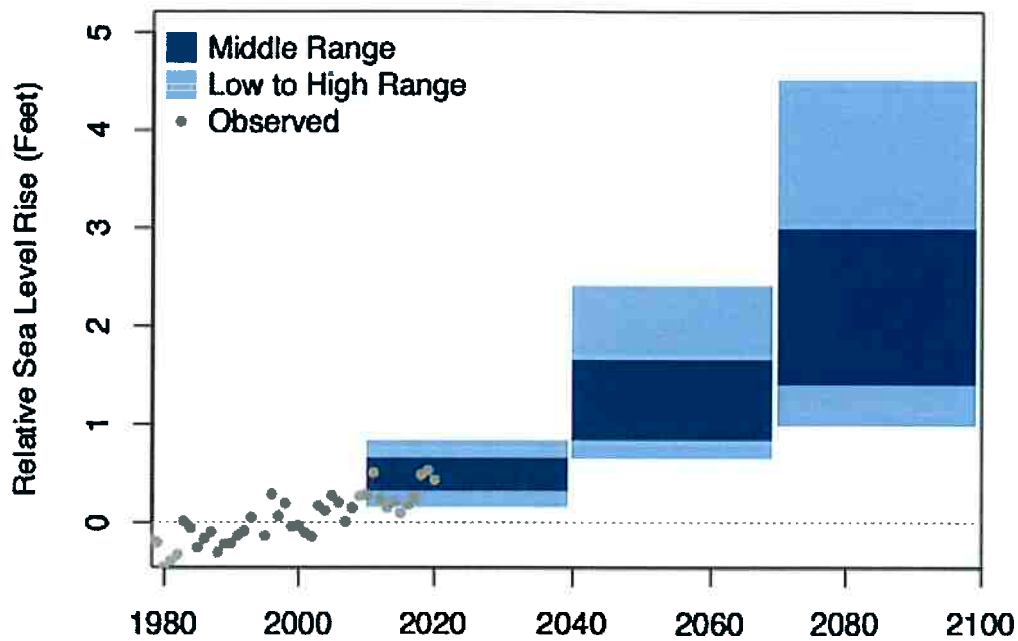


Figure 20³⁰¹

233. The County has and will incur substantial costs to increase the County’s resiliency to sea level rise. Some of these measures include, but are not limited to, developing and maintaining critical infrastructure and flood mitigation measures, such as bridge maintenance and dam upgrades.

Increased Heat Events

234. The MARISA Outlook notes that increased heat events have and will impact Bucks County. “Human health and infrastructure are all threatened by higher temperatures. At 95°F, it is hard to keep indoor areas and our bodies cool. Bucks County’s summers are getting hotter and this is intensified by the Heat Island effect. On average, Bucks County sees 3 days per year with temperatures above 95°F (1990-2019 average). Within the next 50 years (by 2070), Bucks County

³⁰¹ *Id.*

can expect a yearly average of 19 to 37 days above 95°F, with associated increases in cooling costs, reduced air quality, and heat-related illnesses.”³⁰²

235. “Heatwaves can kill people and pets. In Pennsylvania, more than 80 people have died from extreme heat between 2010 and 2019. Individuals at higher risk include children, pregnant women, older adults, outdoor workers, and lower-income residents.”³⁰³

236. The graph below “shows the number of days in a year with temperatures above or equal to 95°F. Dots represent observed annual days of extreme temperatures and the gray shading shows the hindcast.”³⁰⁴ The high-emissions scenario is depicted in red, and the low-emissions scenario is depicted in blue.

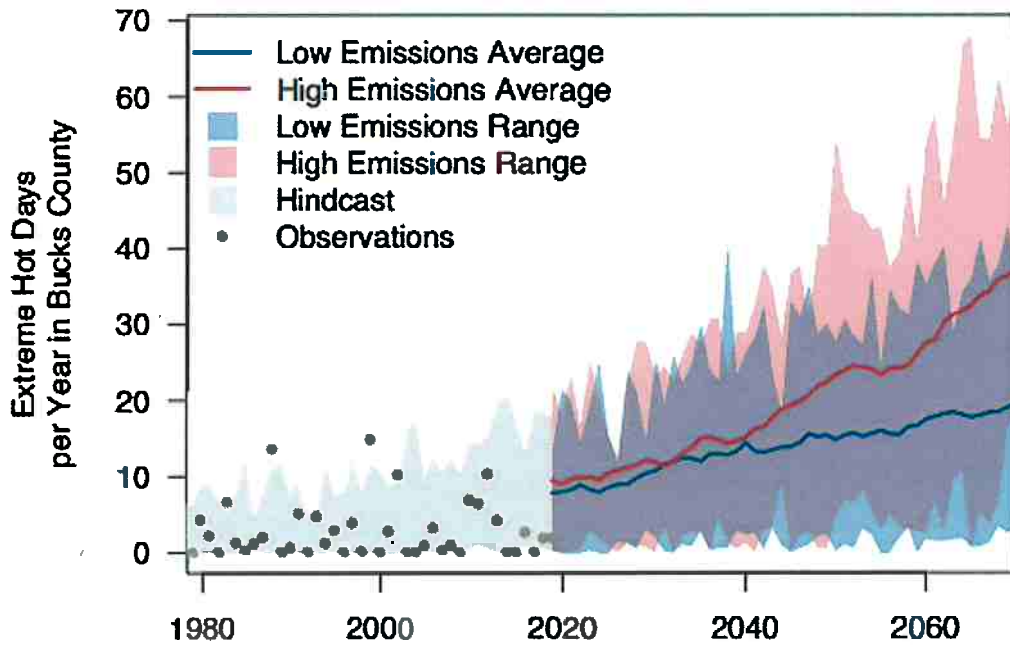


Figure 21³⁰⁵

³⁰² *Id.*

³⁰³ *Id.*

³⁰⁴ *Id.*

³⁰⁵ *Id.*

237. The County has and will incur substantial costs to increase the County's resiliency to increased heat events. Some of these measures include, but are not limited to, developing critical infrastructure like cooling centers and buses, retrofitting existing buildings with air conditioning or other cooling capabilities, upgrading existing HVAC units, and developing landscaping and urban park solutions to address heat islands in the County.

Bucks County Climate Damages and Resiliency Measures

238. Bucks County has and will continue to incur substantial costs responding to weather events caused by climate change and destabilization and taking measures to adapt to the impacts of climate change. These resiliency measures include, but are not limited to:

- a. Developing critical infrastructure and flood mitigation measures to withstand severe precipitation events;
- b. Maintaining bridges following severe storm events;
- c. Upgrading dams to withstand severe precipitation events and rising tidal waters;
- d. Preparing for increased building capital and maintenance costs to repair damage from severe weather events;
- e. Building critical infrastructure like cooling centers and buses, retrofitting existing buildings with air conditioning or other cooling capabilities, and upgrading existing HVAC units;
- f. Recalibrating transportation infrastructure design standards to withstand new thresholds of heat, freeze-thaw cycles, and buckling from changing temperature and precipitation patterns;

- g. Upgrading transportation infrastructure to avoid road closures and other transportation disruption during extreme weather events;
- h. Providing increased maintenance for roads, transit, and emergency vehicles to withstand infrastructure damage from severe weather events;
- i. Increasing landscaping and urban park maintenance costs related to the maintenance of trees, plants, and flowers as a result of the changing seasonal trends and severe weather events;
- j. Providing increased emergency operations support to local municipalities in responding to weather-related emergencies;
- k. Increasing electrical services to accommodate the increase in demand for heating and cooling; and
- l. Coordinating and paying additional stipends associated with cooling centers for seniors on “Code Red” days as declared by the Pennsylvania Department of Environmental Protection.
- m. Updating stormwater management and hazard mitigation plans to address flooding and other climate-related risks to the County.

CAUSES OF ACTION

COUNT I

STRICT PRODUCTS LIABILITY – FAILURE TO WARN

(Against Fossil Fuel Defendants)

239. The County repeats, re-alleges, and incorporates by reference each and every allegation contained in paragraphs 1-238, as though fully set forth herein.

240. At all relevant times, the Fossil Fuel Defendants and their affiliates and subsidiaries were engaged in the business of advertising, promoting, and/or selling fossil fuel products and

their derivatives. The Fossil Fuel Defendants placed these fossil fuel products and their derivatives into the stream of commerce.

241. As advertisers, promoters, and/or sellers of fossil fuel products and their derivatives, Defendants had a duty to warn the consumers, the public, and the County of the reasonably foreseeable environmental and health risks posed by fossil fuel products and their derivatives.

242. Fossil fuel products and their derivatives are defective and unreasonably dangerous products and pose significant risks to human health and the environment.

243. Fossil fuel products and their derivatives release greenhouse gases into the atmosphere, causing climate destabilization, global warming, more frequent and extreme precipitation events and flooding, more frequent and extreme drought, more frequent and severe heat waves and extreme temperatures, more frequent and extreme other weather events, and the consequences and injuries associated with those physical and environmental changes, including without limitation injuries to the County's property, infrastructure, and natural resources ("Climate-Related Harms") result in risks to human health and safety, damage to property, infrastructure, and loss of use of County services in the County.

244. Defendants knew, or should have known, based on information passed to them from their internal research divisions and affiliates, from the non-party trade associations and entities, and/or from the international scientific community, of the climate effects inherently caused by the normal use and operation of their fossil fuel products and derivatives, including the Climate-Related Harms and any other harms and injuries sustained by the County as described herein.

245. At all times relevant to this action, Fossil Fuel Defendants' fossil fuel products and their derivatives were used, distributed, and sold in a manner in which they were reasonably

foreseeably intended to be used, distributed, and sold, including but not limited to being combusted for energy, combusted to power automobiles, refined into petrochemicals, and refined and/or incorporated into petrochemical products including, but not limited to, fuels and plastics.

246. Fossil Fuel Defendants and their affiliates and subsidiaries knew, or should have known, that these fossil fuel products and their derivatives would be used by the County, its residents, and others within the County's boundary, amongst others, in the manner reasonably foreseeably intended.

247. Fossil Fuel Defendants knew, or should have known, based on information passed to them from their internal research divisions and affiliates, from the non-party trade associations and entities, and/or from the international scientific community, that the Climate-Related Harms described herein rendered their fossil fuel products and their derivatives dangerous, or likely to be dangerous, when used in the manner reasonably foreseeably intended.

248. The fossil fuel products and derivatives that Fossil Fuel Defendants refined, formulated, designed, manufactured, merchandised, advertised, promoted, and/or sold—whether used as intended or used in a reasonably foreseeable manner—were not reasonably safe at the time they left Fossil Fuel Defendants' control because they lacked adequate warnings and instructions.

249. The fossil fuel products and their derivatives reached consumers and the environment substantially unchanged from that in which they left the Fossil Fuel Defendants' control.

250. Without adequate warnings, Fossil Fuel Defendants' fossil fuel products and their derivatives were unsafe to an extent beyond that which would be contemplated by an ordinary person.

251. Fossil Fuel Defendants knew that by failing to warn consumers, the County, and the public of the risks posed by fossil fuels, their products would be purchased, transported, stored, handled, and used without users and consumers being aware of the hazards fossil fuels pose to human health and the environment.

252. At the time of manufacture, merchandising, advertising, promotion, or sale, Fossil Fuel Defendants could have provided warnings or instructions regarding the full and complete risks fossil fuel products and their derivatives posed because they knew and/or should have known of the unreasonable risks of harm associated with the use of these products, as described herein.

253. Despite the Fossil Fuel Defendants' superior and unequal knowledge of the risks posed by fossil fuel products and their derivatives, the Fossil Fuel Defendants failed to adequately warn consumers, the County, and the public of the known and foreseeable risks of climate destabilization, Climate-Related Harms, and other dangers that would inevitably follow from the intended or reasonably foreseeable use of these products.

254. Not only did Fossil Fuel Defendants fail to adequately warn, but the Fossil Fuel Defendants, through the decades-long tortious campaign of deception described herein, also represented, asserted, claimed, and warranted that their fossil fuel products and derivatives were safe for their intended and foreseeable uses.

255. Any warnings the Fossil Fuel Defendants may have issued as to the risks of their fossil fuel products and their derivatives were rendered ineffective and inadequate by Fossil Fuel Defendants' false and misleading public relations campaigns and statements about fossil fuel products, and their years-long efforts to conceal and misrepresent the dangers that follow from the intended or reasonably foreseeable use of such products.

256. Fossil Fuel Defendants individually and in concert widely disseminated marketing materials, refuted the scientific knowledge generally accepted at the time, advanced and promoted pseudo-scientific theories of their own, and developed public relations materials that prevented reasonable consumers from recognizing or discovering the latent risk that Fossil Fuel Defendants' fossil fuel products and their derivatives would cause grave climate changes, undermining and rendering ineffective any warnings that Fossil Fuel Defendants may have also disseminated.

257. Accordingly, the ordinary consumer would not recognize that the use of fossil fuel products and their derivatives causes global and localized changes in climate, and would result in injuries to the County, its communities, and its resources, as described herein.

258. Fossil Fuel Defendants breached their duty to warn by unreasonably failing to provide the County, the public, consumers, and users of fossil fuel products and their derivatives with warnings regarding the potential and/or actual threat to human health and the environment caused by pollution released from the manufacturing and consumption of fossil fuels, despite Fossil Fuel Defendants' vast amounts of knowledge and research demonstrating fossil fuels and their derivatives presented threats to human health and the environment.

259. Had the Fossil Fuel Defendants provided adequate warnings and not waged a deceptive campaign against climate science, their fossil fuel products and their derivatives would not have earned widespread acceptance in the marketplace, fossil fuel alternatives could have been developed faster, investment in fossil fuel alternatives would be greater, and/or fossil fuel alternatives would be more used in greater amounts.

260. Moreover, had the Fossil Fuel Defendants provided adequate warnings about the adverse impacts to public health and the environment that results from the intended and reasonably foreseeable use of fossil fuel products and their derivatives, the County and its residents would

have taken measures to decrease fossil fuel dependency in order to avoid or lessen the Climate-Related Harms and property damage that would inevitably follow.

261. As a result of the Fossil Fuel Defendants' failure to warn about the unreasonably dangerous conditions of their fossil fuel products and their derivatives, Fossil Fuel Defendants are strictly liable to Plaintiff.

262. The Fossil Fuel Defendants consciously disregarded the health, safety, property, and rights of others in engaging in the decades-long tortious campaign of deception described herein.

263. As a direct and proximate result of the Fossil Fuel Defendants' failure to warn about the unreasonably dangerous conditions of their fossil fuel products and derivatives, the County has incurred and will continue to incur costs and damages related to physical damage to County property, County infrastructure, human health, and natural resources.

264. As a direct and proximate result of Fossil Fuel Defendants' acts and omissions as alleged herein, the County and its residents have suffered monetary losses and damages in amounts to be proven at trial.

265. Additionally, because Defendants acted with malice in their conscious, willful, and wanton disregard of the probable dangerous consequences of their conduct and its foreseeable impact upon the County, the County is entitled to punitive damages.

WHEREFORE, Plaintiff, BUCKS COUNTY, respectfully requests that this Court enter an Order:

- a. finding that Fossil Fuel Defendants failed to warn Plaintiff about the unreasonably dangerous conditions of the fossil fuel products and their derivatives;
- b. holding Fossil Fuel Defendants jointly and severally liable for all past damages the County has incurred, and future damages the County will incur as a result of Fossil

Fossil Fuel Defendants' conduct, including but not limited to loss-of-use damages, the costs of enhancing infrastructure, damage to property, natural resource damages, any other compensatory and exemplary damages available under Pennsylvania law, interest on the damages according to law, and any other relief necessary to remedy climate change-related harms that the County will face;

- c. awarding punitive damages as permitted by law;
- d. awarding any other damages as permitted by law;
- e. awarding litigation costs and attorneys' fees permitted by law;
- f. awarding pre-judgment and post-judgment interest on all monies awarded, as permitted by law; and
- g. granting such other and further relief as this Court deems appropriate and just.

COUNT II
NEGLIGENT PRODUCTS LIABILITY – FAILURE TO WARN
(Against Fossil Fuel Defendants)

266. The County repeats, re-alleges, and incorporates by reference each and every allegation contained in paragraphs 1-238, as though fully set forth herein.

267. At all relevant times, the Fossil Fuel Defendants and their affiliates and subsidiaries were engaged in the business of advertising, promoting, and/or selling fossil fuel products and their derivatives.

268. As advertisers, promoters, and/or sellers of fossil fuel products and their derivatives, Fossil Fuel Defendants had a duty to warn the public, consumers, and users of such products, including the County, of the reasonably foreseeable environmental and health risks posed by the probable use of fossil fuel products and their derivatives.

269. Fossil fuel products and their derivatives release greenhouse gases into the atmosphere, causing Climate-Related Harms, which result in risks to human health and safety,

damage to property, infrastructure, and natural resources, and loss of use of County services in the County.

270. Fossil Fuel Defendants knew, or should have known, based on information passed to them from their internal research divisions and affiliates, from the non-party trade associations and entities, and/or from the international scientific community, of the climate effects inherently caused by the use for which their fossil fuel products and derivatives were supplied, including the Climate-Related Harms and any other harms and injuries sustained by the County as described herein.

271. At all times relevant to this action, Fossil Fuel Defendants' fossil fuel products and their derivatives were used, distributed, and sold for their probable uses, including but not limited to being combusted for energy, combusted to power automobiles, refined into petrochemicals, and refined and/or incorporated into petrochemical products including, but not limited to, fuels and plastics.

272. Fossil Fuel Defendants and their affiliates and subsidiaries knew, or should have known, that these fossil fuel products and their derivatives would be used by the County, its residents, and others within the County's limits, amongst others, in the manner reasonably foreseeably intended.

273. Fossil Fuel Defendants knew, or should have known, based on information passed to them from their internal research divisions and affiliates, from the non-party trade associations and entities, and/or from the international scientific community, that the climate effects described herein rendered their fossil fuel products and their derivatives dangerous, or likely to be dangerous, for the uses for which they were supplied.

274. Fossil Fuel Defendants knew that by failing to warn the County, the public, consumers, and users of fossil fuels and their derivatives of the risks posed by fossil fuels, their products would be purchased, transported, stored, handled, and used without users and consumers being aware of the hazards fossil fuels pose to human health and the environment.

275. At the time of manufacture, merchandising, advertising, promotion, or sale, Fossil Fuel Defendants could have provided warnings or instructions regarding the full and complete risks fossil fuel products and their derivatives posed because they knew and/or should have known of the unreasonable risks of harm associated with the use of these products, as described herein.

276. Despite the Fossil Fuel Defendants' superior and unequal knowledge of the risks posed by fossil fuel products and their derivatives, the Fossil Fuel Defendants failed to adequately warn consumers, the County, and the general public of the known and foreseeable risks of climate change, Climate-Related Harms, and other dangers that would inevitably follow from the intended or reasonably foreseeable use of these products.

277. Not only did Fossil Fuel Defendants fail to adequately warn consumers, but the Fossil Fuel Defendants, through their decades-long tortious campaign of deception described herein, also represented, asserted, claimed, and warranted that their fossil fuel products and derivatives were safe for their intended and foreseeable uses.

278. Any warnings the Fossil Fuel Defendants may have issued as to the risks of their fossil fuel products and their derivatives were rendered ineffective and inadequate by Fossil Fuel Defendants' false and misleading public relations campaigns and statements about fossil fuel products and their derivatives, and their years-long efforts to conceal and misrepresent the dangers that follow from the intended or reasonably foreseeable use of such products.

279. Fossil Fuel Defendants individually and in concert widely disseminated marketing materials, refuted the scientific knowledge generally accepted at the time, advanced and promoted pseudo-scientific theories of their own, and developed public relations materials that prevented reasonable consumers from recognizing or discovering the latent risk that Fossil Fuel Defendants' fossil fuel products and derivatives would cause grave climate changes, undermining and rendering ineffective any warnings that Fossil Fuel Defendants may have also disseminated.

280. Accordingly, the ordinary consumer would not recognize that the use of fossil fuel products and their derivatives causes global and localized changes in climate, and would result in injuries to the County, its communities, and its resources, as described herein.

281. Fossil Fuel Defendants breached their duty to warn by unreasonably failing to provide the County, the public, consumers, and users of fossil fuel products and their derivatives with warnings regarding the potential and/or actual threat to human health and the environment caused by pollution released from the manufacturing and consumption of fossil fuels, despite Fossil Fuel Defendants' vast amounts of knowledge and research demonstrating fossil fuels and their derivatives presented threats to human health and the environment.

282. Had the Fossil Fuel Defendants provided adequate warnings and not waged a deceptive campaign against climate science, their fossil fuel products and their derivatives would not have earned widespread acceptance in the marketplace.

283. Had the Fossil Fuel Defendants provided adequate warnings and not waged a deceptive campaign against climate science, fossil fuel alternatives could have been developed faster, investment in fossil fuel alternatives would be greater, and/or fossil fuel alternatives would be more used in greater amounts.

284. Moreover, had the Fossil Fuel Defendants provided adequate warnings about the adverse impacts to public health and the environment that results from the intended and reasonably foreseeable use of fossil fuel products and their derivatives, the County and its residents would have taken measures to decrease fossil fuel dependency in order to avoid or lessen the Climate-Related Harms and property damage that would inevitably follow.

285. As a result of the Fossil Fuel Defendants' failure to warn about the unreasonably dangerous conditions of their fossil fuel products and their derivatives, Fossil Fuel Defendants are liable to the County.

286. The Fossil Fuel Defendants consciously disregarded the health, safety, property, and rights of others in engaging in the decades-long tortious campaign of deception described herein.

287. As a direct and proximate result of the Fossil Fuel Defendants' failure to warn about the unreasonably dangerous conditions of their fossil fuel products and derivatives, the County has incurred and will continue to incur costs and damages related to physical damage to County property, County infrastructure, human health, and natural resources.

288. As a direct and proximate result of Fossil Fuel Defendants' acts and omissions as alleged herein, the County and its residents have suffered monetary losses and damages in amounts to be proven at trial.

289. Additionally, because Defendants acted with malice in their conscious, willful, and wanton disregard of the probable dangerous consequences of their conduct and its foreseeable impact upon the County, the County is entitled to punitive damages.

WHEREFORE, Plaintiff, BUCKS COUNTY, respectfully requests that this Court enter an Order:

- a. finding that Fossil Fuel Defendants failed to warn Plaintiff about the unreasonably dangerous conditions of the fossil fuel products and their derivatives;
- b. holding Fossil Fuel Defendants jointly and severally liable for all past damages the County has incurred, and future damages the County will incur as a result of Fossil Fuel Defendants' conduct, including but not limited to loss-of-use damages, the costs of enhancing infrastructure, damage to property, natural resource damages, any other compensatory and exemplary damages available under Pennsylvania law, interest on the damages according to law, and any other relief necessary to remedy climate change-related harms that the County will face;
- c. awarding punitive damages as permitted by law;
- d. awarding any other damages as permitted by law;
- e. awarding litigation costs and attorneys' fees permitted by law;
- f. awarding pre-judgment and post-judgment interest on all monies awarded, as permitted by law; and
- g. granting such other and further relief as this Court deems appropriate and just.

COUNT III
NEGLIGENCE
(Against All Defendants)

290. The County repeats, re-alleges, and incorporates by reference each and every allegation contained in paragraphs 1-238, as though fully set forth herein.

291. For years, Defendants possessed knowledge that fossil fuels are the primary cause of climate change and that, if unabated, climate change would cause Climate-Related Harms, which result in risks to human health and safety, damage to property, infrastructure, and natural resources, and loss of use of County services in the County.

292. Given the scientific evidence available to and conducted by Defendants, as referenced herein, such injury was likely and reasonably foreseeable.

293. Under Pennsylvania law, Defendants had a duty to the County and its residents to exercise due care in the marketing, sale, and/or labeling of their products and to act reasonably for the protection of the County and its residents and to avoid inflicting the injuries described herein.

294. Under Pennsylvania law, Defendants also had a duty to honestly communicate their knowledge about the hazards of their products, and a duty not to make false and misleading statements about the hazards of their products.

295. Defendants had superior knowledge of the risk posed by fossil fuel products at all times relevant to this Complaint.

296. Defendants breached their duty of care when they advertised, promoted, and/or sold fossil fuel products and their derivatives, while failing to include warnings of the risk of harm associated with fossil fuel products and their derivatives, in a manner that they knew or should have known would result in injury to human health and safety, damage to County property, infrastructure, and natural resources, loss of use of County services, and other damages to the County.

297. Defendants further breached their duty of care by waging a years-long deceptive marketing and public relations campaign to discredit climate science.

298. Any warnings provided by Defendants were rendered ineffective by their decades-long tortious campaign of deception described herein, by promulgating false and misleading statements, casting doubt on the consensus of climate scientists, and advancing pseudo-scientific theories.

299. Defendants individually and in concert widely disseminated marketing materials, refuted the scientific knowledge generally accepted at the time, advanced and promoted pseudo-scientific theories of their own, and developed public relations materials that prevented reasonable consumers from recognizing or discovering the latent risk that Defendants' fossil fuel products and derivatives would cause grave climate changes, undermining and rendering ineffective any warnings that Defendants may have also disseminated.

300. A reasonably careful company would not engage in the decades-long tortious campaign of deception described herein, would not manufacture or distribute fossil fuel products and their derivatives without proper warning, would warn of these products' hazardous properties, and/or would take steps to enhance the safety and/or reduce the risk of the products.

301. Defendants were grossly negligent because they failed to exercise even slight care, placing revenue and profit generation above the health and safety of humans and the environment.

302. Defendants' conduct, especially their decades-long tortious campaign of deception described herein, was wanton, willful, and showed a reckless disregard or conscious indifference towards human health and safety, the rights of the County's residents, County property, infrastructure, and natural resources, and County services. As a direct and proximate result of Defendants' acts and omissions as alleged herein, the County suffered monetary losses and damages in amounts to be proven at trial.

303. Defendants' conduct caused injury to the lives and health of the County's residents, and to the County's property and natural resources, including by causing Climate-Related Harms, which result in risks to human health and safety, damage to property, infrastructure, and natural resources, and loss of use of County services in the County.

304. Additionally, because Defendants acted with malice in their conscious, willful, and wanton disregard of the probable dangerous consequences of their conduct and its foreseeable impact upon the County, the County is entitled to punitive damages.

WHEREFORE, Plaintiff, BUCKS COUNTY, respectfully requests that this Court enter an Order:

- a. finding that Defendants failed to warn Plaintiff about the unreasonably dangerous conditions of the fossil fuel products and their derivatives;
- b. holding Defendants jointly and severally liable for all past damages the County has incurred, and future damages the County will incur as a result of Defendants' conduct, including but not limited to loss-of-use damages, the costs of enhancing infrastructure, damage to property, natural resource damages, any other compensatory and exemplary damages available under Pennsylvania law, interest on the damages according to law, and any other relief necessary to remedy climate change-related harms that the County will face;
- c. awarding punitive damages as permitted by law;
- d. awarding any other damages as permitted by law;
- e. awarding litigation costs and attorneys' fees permitted by law;
- f. awarding pre-judgment and post-judgment interest on all monies awarded, as permitted by law; and
- g. granting such other and further relief as this Court deems appropriate and just.

COUNT IV
PUBLIC NUISANCE
(Against All Defendants)

305. The County repeats, re-alleges, and incorporates by reference each and every allegation contained in paragraphs 1-238, as though fully set forth herein.

306. Under Pennsylvania law, the general public has a right to public health, public safety, public peace, public comfort, and public convenience.

307. The Pennsylvania Constitution also provides that the people of the Commonwealth of Pennsylvania have a common right to “clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment.” PA. CONST. art. I, § 27 (1971).

308. Defendants, individually and in concert with each other, through their affirmative promotion, sale, and/or distribution of their fossil fuel products and their derivatives in the County have created, caused, contributed to, and assisted in creating Climate-Related Harms, which result in risks to human health and safety, damage to property, infrastructure, and natural resources, loss of use of County services in the County, and interference with the public’s right “to the preservation of the natural, scenic, historic and esthetic values of the environment.”

309. Defendants were substantially certain that their promotion, sale, and/or distribution of fossil fuel products and their derivatives would cause the long-lasting Climate-Related Harms to occur and persist, when those products and derivatives were used exactly as intended.

310. These Climate-Related Harms are injurious to health, indecent and offensive to the senses, interfere with the comfortable enjoyment of life and property, and constitute a substantial and unreasonable interference with rights enjoyed by the public, including rights under Article I of the Pennsylvania Constitution.

311. Defendants created, caused, contributed to, and assisted in the creation of these and other Climate-Related Harms in the County by, among other things, affirmatively promoting the sale and use of fossil fuel products and their derivatives in the County, which Defendants knew would cause or exacerbate Climate-Related Harms, while simultaneously engaging in the decades-

long tortious campaign of deception described herein and failing to include warnings of the risk of harm associated with fossil fuel products and their derivatives.

312. The Climate-Related Harms obstruct and interfere with rights common to the public, including the right guaranteed by the Pennsylvania Constitution to a clean, preserved environment, public health, public safety, public peace, public comfort, and public convenience. These interferences with public rights include, among other things:

a. Severe storm events and rising tidal rivers, which result in flooding and groundwater changes that obstruct the free passage and use of roads and property, impair water quality in groundwater aquifers, damage critical public infrastructure, and lead to unprecedented levels of water surge into communities that can cause injury or even death;

b. Extreme heat events, which increase the risk of injury or death from dehydration, heat stroke, heart attack, and respiratory problems;

c. Frequent and severe droughts, which can result in drinking water shortages and land subsidence due to groundwater depletion;

d. Increased smog from hotter temperatures, which damages lungs and increases rates of childhood asthma, respiratory and heart disease, and death, and which reduces visibility and obstructs scenic views;

e. Extreme winter storms, which cause flooding that can damage public infrastructure, obstructing the free passage and use of property; and

f. Significant disruptions to the County's ecosystems and biodiversity, including the spread of invasive species.

313. These Climate-Related Harms obstruct the public's free use and comfortable enjoyment of property and natural resources, and an ordinary person would be reasonably annoyed or disturbed by these Climate-Related Harms.

314. The Climate-Related Harms caused by Defendants' nuisance-creating conduct are extremely grave, and far outweigh the social utility of that conduct.

315. As a consequence of their actions, as alleged herein, Defendants have created and maintained, and continue to create and maintain, a public nuisance at common law.

316. Defendants' conduct caused and will continue to cause harm to the County and its residents many years into the future.

317. As a direct and proximate result of Defendants' acts and omissions, the County will be required to expend significant public resources to mitigate the impacts of Climate-Related Harms throughout the County.

318. The Climate-Related Harms are severe and greater than the County and the public should bear without compensation and outweigh any utility of Defendants' conduct.

319. As a direct and proximate result of Defendants' acts and omissions as alleged herein, the County has suffered monetary losses and damages in amounts to be proven at trial.

WHEREFORE, Plaintiff, BUCKS COUNTY, respectfully requests that this Court enter an Order:

- a. finding that Defendants' actions alleged herein constituted a common law public nuisance;
- b. holding Defendants jointly and severally liable for all past damages the County has incurred, and future damages the County will incur as a result of Defendants' conduct, including but not limited to loss-of-use damages, the costs of enhancing

infrastructure, damage to property, natural resource damages, any other compensatory and exemplary damages available under Pennsylvania law, interest on the damages according to law, and any other relief necessary to remedy climate change-related harms that the County will face;

- c. awarding any other damages as permitted by law;
- d. awarding litigation costs and attorneys' fees permitted by law;
- e. awarding pre-judgment and post-judgment interest on all monies awarded, as permitted by law; and
- f. granting such other and further relief as this Court deems appropriate and just.

COUNT V
PRIVATE NUISANCE
(Against All Defendants)

320. The County repeats, re-alleges, and incorporates by reference each and every allegation contained in paragraphs 1-238, as though fully set forth herein.

321. Defendants' affirmative promotion, sale, and/or distribution of their fossil fuel products and their derivatives in the County caused or exacerbated climate change and its impacts, causing Climate-Related Harms, which result in risks to human health and safety, damage to and impaired use of County property, infrastructure, and natural resources and loss of use of County services in the County.

322. Defendants created, caused, contributed to, and assisted in the creation of these and other Climate-Related Harms in the County by, among other things, affirmatively promoting the sale and use of fossil fuel products and their derivatives in the County, which Defendants knew would cause or exacerbate Climate-Related Harms, while simultaneously engaging in the decades-long tortious campaign of deception described herein and failing to include warnings of the risk of harm associated with fossil fuel products and their derivatives.

323. Defendants were substantially certain that their promotion, sale, and/or distribution of fossil fuel products and their derivatives would cause Climate-Related Harms to occur when those products and derivatives were used exactly as intended.

324. The County owns, leases, occupies, and manages extensive real property which has been and will be injured by Climate-Related Harms, which result in risks to human health and safety, damage to property, infrastructure, and natural resources, and loss of use of County services in the County.

325. Defendants, by their acts and omissions, have caused, created, and contributed to conditions on the County's properties, and permitted those conditions to persist, which substantially and unreasonably interfere with the County's use and enjoyment of such property for the public benefit and welfare, and which materially diminishes the values of such property for its public purposes.

326. The County has not consented to Defendants' conduct in creating the substantial and unreasonable conditions on its real property or to the associated harms of that conduct.

327. These undeniably severe, substantial, and unreasonable conditions affecting real property include, among other things:

a. Severe storm events and rising tidal rivers, which result in flooding and groundwater changes that obstruct the free passage and use of roads and property, impair water quality in groundwater aquifers, damage critical public infrastructure, and lead to unprecedented levels of water surge into communities that can cause injury or even death;

b. Extreme heat events, which increase the risk of injury or death from dehydration, heat stroke, heart attack, and respiratory problems;

c. Frequent and severe droughts, which can result in drinking water shortages and land subsidence due to groundwater depletion;

d. Increased smog from hotter temperatures, which damages lungs and increases rates of childhood asthma, respiratory and heart disease, and death, and which reduces visibility and obstructs scenic views;

e. Extreme winter storms, which cause flooding that can damage public infrastructure, obstructing the free passage and use of property; and

f. Significant disruptions to the County's ecosystems and biodiversity, including the spread of invasive species.

328. The gravity of the harm to human life and property caused by more frequent and extreme precipitation events, more frequent and extreme drought, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, outweighs the utility of Defendants continued efforts to maximize profits and engage in a deceptive marketing campaign to promote the unrestrained use of their products, which has already inflated and sustained the market for fossil fuels..

329. An ordinary person would be reasonably annoyed or disturbed by these Climate-Related Harms.

330. Defendants' conduct caused and will continue to cause harm to the County's properties many years into the future.

331. As a direct and proximate result of Defendants' acts and omissions, the County will be required to expend significant public resources to mitigate the impacts of Climate-Related Harms to its properties throughout the County.

332. The Climate-Related Harms are severe and greater than the County and the public should bear without compensation and outweigh any utility of Defendants' conduct. The harm Defendants' products have caused is so serious that compensating for it would not make the continuation of the Defendants' deceptive campaigns not feasible.

333. As a direct and proximate result of Defendants' acts and omissions as alleged herein, the County has suffered monetary losses and damages in amounts to be proven at trial.

334. Additionally, because Defendants acted with malice in their conscious, willful, and wanton disregard of the probable dangerous consequences of their conduct and its foreseeable impact upon the County, the County is entitled to punitive damages.

WHEREFORE, Plaintiff, BUCKS COUNTY, respectfully requests that this Court enter an Order:

- a. finding that Defendants' actions alleged herein constituted a common law private nuisance;
- b. enjoining Defendants from further acts constituting a common law private nuisance;
- c. ordering Defendants to immediately undertake the necessary action that will result in a final and permanent abatement of the common law private nuisance;
- d. holding Defendants jointly and severally liable for all past damages the County has incurred, and future damages the County will incur as a result of Defendants' conduct, including but not limited to loss-of-use damages, the costs of enhancing infrastructure, damage to property, natural resource damages, any other compensatory and exemplary damages available under Pennsylvania law, interest on the damages according to law, and any other relief necessary to remedy climate change-related harms that the County will face;

- e. awarding punitive damages as permitted by law;
- f. awarding any other damages as permitted by law;
- g. awarding litigation costs and attorneys' fees permitted by law;
- h. awarding pre-judgment and post-judgment interest on all monies awarded, as permitted by law; and
- i. granting such other and further relief as this Court deems appropriate and just.

COUNT VII
TRESPASS
(Against All Defendants)

335. The County repeats, re-alleges, and incorporates by reference each and every allegation contained in paragraphs 1-238, as though fully set forth herein.

336. The County owns, leases, occupies, and manages extensive real property which has been and will be injured by Climate-Related Harms that result in damage to property, infrastructure, and natural resources, and loss of use of County services in the County.

337. Defendants intentionally engaged in the decades-long tortious campaign of deception described herein, and the Defendants knew or should have known that their intentional conduct would cause and exacerbate climate change and its impacts, causing Climate-Related Harms, including but not limited to rising tidal waters, extreme precipitation, and flood waters, to intrude on the County's property.

338. The Defendants had considerable scientific knowledge affording them substantial certainty that greenhouse gas emissions from their fossil fuel products would cause sea level rise, flood events, and other extreme weather events, causing seawater and extreme storm runoff to invade County properties.

339. Defendants actually did foresee—through their own studies—that their intentional conduct would cause such an invasion.

340. These undeniably severe, substantial, and unreasonable conditions affecting real property include, among other things:

a. Severe storm events and rising tidal rivers, which result in flooding and groundwater changes that obstruct the free passage and use of roads and property, impair water quality in groundwater aquifers, damage critical public infrastructure, and lead to unprecedented levels of water surge into communities that can cause injury or even death;

b. Extreme heat events, which increase the risk of injury or death from dehydration, heat stroke, heart attack, and respiratory problems;

c. Frequent and severe droughts, which can result in drinking water shortages and land subsidence due to groundwater depletion;

d. Increased smog from hotter temperatures, which damages lungs and increases rates of childhood asthma, respiratory and heart disease, and death, and which reduces visibility and obstructs scenic views;

e. Extreme winter storms, which cause flooding that can damage public infrastructure, obstructing the free passage and use of property; and

f. Significant disruptions to the County's ecosystems and biodiversity, including the spread of invasive species.

341. The County has not consented to, and does not consent to, the intrusion of Climate-Related Harms on its property.

342. Defendants knew or reasonably should have known that the County would not consent to this trespass.

343. By engaging in intentional conduct that Defendants knew would result in Climate-Related Harms in the County, Defendants have intentionally intruded upon the County's property without permission or privilege.

344. The County is, and will continue to be, harmed by the entry of Climate-Related Harms caused by Defendants' intentional conduct onto its properties.

345. Defendants' conduct caused and will continue to cause harm to the County's properties many years into the future.

346. As a direct and proximate result of the Defendants' acts and omissions, the County will be required to expend significant resources to mitigate the impacts of Climate-Related Harms to its properties throughout the County.

347. The Climate-Related Harms are severe and greater than the County and the public should bear without compensation and outweigh any utility of the Defendants' conduct.

348. As a direct and proximate result of Defendants' acts and omissions as alleged herein, the County has suffered monetary losses and damages in amounts to be proven at trial.

349. Additionally, because Defendants acted with malice in their conscious, willful, and wanton disregard of the probable dangerous consequences of their conduct and its foreseeable impact upon the County, the County is entitled to punitive damages.

WHEREFORE, Plaintiff, BUCKS COUNTY, respectfully requests that this Court enter an Order:

- a. finding that Defendants failed to warn Plaintiff about the unreasonably dangerous conditions of the fossil fuel products and their derivatives;
- b. holding Defendants jointly and severally liable for all past damages the County has incurred, and future damages the County will incur as a result of Defendants' conduct, including but not limited to loss-of-use damages, the costs of enhancing

infrastructure, damage to property, natural resource damages, any other compensatory and exemplary damages available under Pennsylvania law, interest on the damages according to law, and any other relief necessary to remedy climate change-related harms that the County will face;

- c. awarding any other damages as permitted by law;
- d. awarding litigation costs and attorneys' fees permitted by law;
- e. awarding pre-judgment and post-judgment interest on all monies awarded, as permitted by law; and
- f. granting such other and further relief as this Court deems appropriate and just.

COUNT VIII
CIVIL CONSPIRACY
(Against All Defendants)

350. The County repeats, re-alleges, and incorporates by reference each and every allegation contained in paragraphs 1-238 and 290-349, as though fully set forth herein.

351. As alleged herein, Defendants entered into agreements with and joined organized groups, such as API, to promote their commercial interests in maximizing profits from their fossil fuel products and their derivatives.

352. In furtherance of the agreements and organized groups entered into by various Defendants, Defendants committed the tortious acts described in Counts III-VII set forth herein.

353. By participating in agreements and organized groups, such as API, Defendants planned, assisted, or encouraged the tortious acts described in Counts III-VII set forth herein.

354. The collective activities of the API and the Defendants were designed knowingly and purposefully for API's and Fossil Fuel Defendants' economic and pecuniary benefit and were performed in furtherance of API's and Fossil Fuel Defendants' respective and joint business interests, including but not limited to ensuring the public's continued reliance on fossil fuels.

355. API and Fossil Fuel Defendants engaged in a civil conspiracy to conceal from potential purchasers, consumers, and users in and around the County, including the County, data and information demonstrating the risk that their fossil fuel products and derivatives would cause grave climate changes.

356. API and Fossil Fuel Defendants further conspired to mislead potential purchasers, consumers, and users in and around the County, including the County, about such data and information by widely disseminating marketing materials, refuting the scientific knowledge generally accepted at the time, advancing and promoting pseudo-scientific theories of their own, and developing public relations materials that prevented reasonable consumers from recognizing or discovering the latent risk that Defendants' fossil fuel products and derivatives would cause grave climate changes.

357. As a proximate result of Defendants' civil conspiracy, the County suffered monetary losses and damages in amounts to be proven at trial.

358. Additionally, because Defendants acted with malice in their conscious, willful, and wanton disregard of the probable dangerous consequences of their conduct and its foreseeable impact upon the County, the County is entitled to punitive damages.

WHEREFORE, Plaintiff, BUCKS COUNTY, respectfully requests that this Court enter an Order:

- a. finding that Defendants failed to warn Plaintiff about the unreasonably dangerous conditions of the fossil fuel products and their derivatives;
- b. holding Defendants jointly and severally liable for all past damages the County has incurred, and future damages the County will incur as a result of Defendants' conduct, including but not limited to loss-of-use damages, the costs of enhancing infrastructure, damage to property, natural resource damages, any other

compensatory and exemplary damages available under Pennsylvania law, interest on the damages according to law, and any other relief necessary to remedy climate change-related harms that the County will face;

- c. awarding punitive damages as permitted by law;
- d. awarding any other damages as permitted by law;
- e. awarding litigation costs and attorneys' fees permitted by law;
- f. awarding pre-judgment and post-judgment interest on all monies awarded, as permitted by law; and
- g. granting such other and further relief as this Court deems appropriate and just.

REQUEST FOR RELIEF

WHEREFORE, in addition to the relief requested in each individual Cause of Action listed above, Plaintiff, BUCKS COUNTY, seeks judgment in its favor and against Defendants for:

- A. Compensatory damages in an amount according to proof;
- B. Punitive damages as permitted by law;
- C. Equitable relief, including abatement of the nuisances complained of herein;
- D. Disgorgement of profits;
- E. Costs (including reasonable attorney fees, court costs, and other expenses of litigation);
- F. Pre-judgment interest; and
- G. Any other and further relief as the Court deems just, proper, and equitable.

JURY TRIAL DEMANDED

Plaintiff hereby demands a trial by jury on all claims so triable.

Date: March 25, 2024

Respectfully submitted,



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*Motions for admission *pro hac vice* to be filed

VERIFICATION

I, Diane M. Ellis-Marseglia, hereby state that I am the Chair of the Bucks County Board of Commissioners, and that I have authority to make this verification on behalf of the County of Bucks. The averments in the Complaint are true and correct to the best of my knowledge, information and belief. I understand that false statements made herein are subject to the penalties of 18 Pa. C.S.A. § 4904 relating to unsworn falsification to authorities.

Date: March 22, 2024


Diane M. Ellis-Marseglia, LESW
Commissioner, Chair