

# 1912

June 14

## COURIER NEWS

The newspaper Plainfield Courier-News in New Jersey published the headline “Coal Consumption Affecting Climate” and mentioned in the article that the coal burned in furnaces around the world was causing an effect that “may be considerable in a few centuries”. The same news was also found in newspapers in Australia and New Zealand. The source of the news was an article in the magazine Popular Mechanics published in March, 1912, which captured the basics of carbon dioxide (CO<sub>2</sub>) impact on climate.

The news article indicated that “The furnaces of the world are now burning about 2,000,000,000 tons of coal a year” and that “when this is burned, uniting with oxygen, it adds about 7,000,000,000 tons of carbon dioxide to the atmosphere yearly. This tends to make the air a more effective blanket for the earth and to raise its temperature. The effect may be considerable in a few centuries.” This article was titled “Remarkable Weather of 1911: The Effect of the Combustion of Coal on the Climate – What Scientists Predict for the Future” published on August 14, 1912, in a New Zealand newspaper.

*Reference document:*

*“Coal Consumption Affecting Climate” newspaper Plainfield Courier-News, New Jersey, Friday, June 14, 1912.*

*Reference quote:*

*archive.nytimes.com/dotearth.blogs.nytimes.com/2016/10/21/coals-link-to-global-warming-explained-in-1912/*

# 1919

March 20

## API

The American Petroleum Institute (API) was established on March 20, 1919, in New York City and moved to Washington DC in late 1969. The API is the largest trade association for the oil and gas industry, representing over 600 corporate members, “from the largest major oil company to the smallest of independents, coming from all segments of the industry.” The API was created following the antitrust lawsuits against John D. Rockefeller’s Standard Oil in 1911, which resulted in its division into 34 separate companies. Many of these companies have since split, folded, or merged; today, the primary descendants of Standard Oil include ExxonMobil, Chevron, and ConocoPhillips.

API’s mission has been to “influence public policy in support of a strong, viable U.S. oil and natural gas industry.” According to API’s website, it “speaks for the oil and natural gas industry to the public, Congress, the Executive Branch, state governments, and the media. We negotiate with regulatory agencies, represent the industry in legal proceedings, participate in coalitions, and work in partnership with other associations to achieve our members’ public policy goals.”

*Reference document:*

*“Climate Disinformation Database, American Petroleum Institute”, DeSmog.*

*Reference quote:*

*[api.org/about](https://api.org/about)*

# 1931

## EDISON

Thomas Edison envisioned using and storing what is now called renewable energy. Edison also suggested investing in solar energy generated with solar panels as he was skeptical of energy from burning fossil fuels. In 1931, not long before he died, the inventor told his friends Henry Ford and Harvey Firestone: “I’d put my money on the sun and solar energy. What a source of power! I hope we don’t have to wait until oil and coal run out before we tackle that.”

Already in an interview in 1910, Thomas Edison stated: “We should utilize natural forces and thus get all of our power. Sunshine is a form of energy, and the winds and the tides are manifestations of energy”, adding “some day some fellow will invent a way of concentrating and storing up sunshine to use instead of this old, absurd Prometheus scheme of fire.”

*Reference document:*

*“Uncommon Friends: Life with Thomas Edison, Henry Ford, Harvey Firestone” book by James Newton. 1989.*

*Reference quote:*

*w with Thomas Edison in the magazine “The Fra” by the publisher Elbert Hubbard. Philistines and Roycrofters c.1 v.5, 1910.*

# 1953

May 24

## NEW YORK TIMES

The Canadian physicist Gilbert Plass talked at a scientific meeting about the dangers of carbon dioxide pollution. He made a sensational statement that became headline news around the world, including the New York Times. Plass stated: “The large increase in industrial activity during the present century is discharging so much carbon dioxide into the atmosphere that the average temperature is rising at the rate of 1.5 degrees per century.” In 1961, he went further and blamed fossil fuels for most of the global warming.

The New York Times article wrote: “The amount of carbon dioxide in the air will double by the year 2080 and raise the temperature an average of at least 4 per cent. The burning of about two billion tons of coal and oil a year keeps the average ground temperature somewhat higher than it would otherwise be.”

*Reference document:*

*“On the Influence of Carbonic Acid in the Air upon the Temperature of the Ground”, Philosophical Magazine and Journal of Science Series 5, Vol 41. April 1896.*

*Reference quote:*

*[nytimes.com/1953/05/24/archives/how-industry-may-change-climate.html](https://www.nytimes.com/1953/05/24/archives/how-industry-may-change-climate.html)*

# 1954

## API

The American Petroleum Institute (API) approved a research proposal by geochemist Harrison Brown and his colleagues at the California Institute of Technology (Caltech). The results indicated that fossil fuels had caused atmospheric CO<sub>2</sub> concentrations to rise by about 5% over the past century. In 1955, the API began funding the proposed research at Caltech under the name Project 53. Also in 1954, the Air Pollution Foundation, with links to API and several other major energy and automobile companies, funded in the Caltech's lab the research of Charles David Keeling to gather carbon dioxide samples, resulting in the famous Keeling's curve.

An excerpt from the research proposal to the API from Harrison Brown and colleagues in 1954: "Perhaps the most interesting effect concerning carbon in trees which we have thus far observed is a marked and fairly steady increase in the C<sub>12</sub>/C<sub>13</sub> ratio with time. Since 1840 the ratio has clearly increased markedly. This effect can be explained on the basis of a changing carbon dioxide concentration in the atmosphere resulting from industrialization and the consequent burning of large quantities of coal and petroleum. If this explanation were correct, the carbon dioxide content of the atmosphere today would be about 5% greater than it was a century ago." In November 1954, another Caltech research project at Brown's lab, funded by the Air Pollution Foundation and proposed by Keeling's director, Samuel Epstein, emphasized the potential impact on earth's climate of burning "coal and petroleum."

*Reference document:*

*"The determination of the variations and causes of variations of the isotopic composition of carbon in nature" by Harrison Brown, California Institute of Technology, 1954.*

*Reference quote:*

[desmog.com/2024/01/30/fossil-fuel-industry-sponsored-climate-science-1954-keeling-api-wspa/](https://desmog.com/2024/01/30/fossil-fuel-industry-sponsored-climate-science-1954-keeling-api-wspa/)

# 1955

## FORD

The physicist Gilbert Plass joined the advanced research staff at the Aeronutronic division of the Ford Motor Company. In 1960, he became manager of the research lab at Ford's theoretical physics department. Gilbert Plass published a series of eye-grabbing pieces on climate, including a 1956 article published in the magazine *American Scientist* titled "Carbon Dioxide and the Climate" and in a paper in the journal *Tellus* titled "The Carbon Dioxide Theory of Climatic Change."

*Reference document:*

*"Carbon Dioxide and the Climate" by Gilbert Plass, American Scientist, 1956.*

# 1957

## EXXON

Humble Oil (now Exxon) scientists, led by H.R. Brannon, published a report that not only acknowledged the increasing levels of atmospheric CO<sub>2</sub> but also recognized the clear contribution of fossil fuels to this rise. Humble's researchers studied the fingerprints of fossil fuel emissions in the wood of growing trees. Humble Oil and Refining Co. was an American oil company founded in 1911 in Humble, Texas. In 1919, a 50% share in Humble was acquired by Standard Oil of New Jersey (Exxon), after the fall of John D. Rockefeller's empire.

The New York Times quoted Center for International Environmental Law (CIEL) director Carroll Muffett on the stunning implications of these documents: "From 1957 onward, there is no doubt that Humble Oil, which is now Exxon, was clearly on notice" about rising CO<sub>2</sub> in the atmosphere and the prospect that it was likely to cause global warming.

*Reference document:*

*"Humble Oil Company Radiocarbon Dates II" by H. R. Brannon, Jr., L. H. Simons, D. Perry, A. C. Daughtry, and E. McFarlan, Vol 125, Issue 3254. May 10, 1957.*

*Reference quote:*

*[nytimes.com/2016/04/14/science/pressure-on-exxon-over-climate-change-intensifies-with-new-documents.html](https://www.nytimes.com/2016/04/14/science/pressure-on-exxon-over-climate-change-intensifies-with-new-documents.html)*

# 1958

## SHELL

Charles Jones identified himself as both the executive secretary of the Smoke and Fumes Committee as well as an executive with Shell. In a document, Jones reported that the Committee was funding a study at Truesdail Laboratories to “determine the amount of carbon of fossil origin” in the atmosphere.

In a presentation on behalf of the Smoke and Fumes Committee to the government-convened National Conference on Air Pollution later that same year, Jones stated: “The petroleum industry supplies the fuel used by the automobile, and thus has a sincere interest in the solution to the problem of pollution from automobile exhaust. The stated objective of the Smoke and Fumes Committee of the American Petroleum Institute is to determine the causes and methods of control of objectionable atmospheric pollution resulting from the production, manufacture, transportation, sale, and use of petroleum and its products.”

*Reference document:*

*“Sources of Air Pollution: Transportation (Petroleum)”. Presentation at the National Conference on Air Pollution by Charles A. Jones. November 19, 1958.*



# 1959

November 4

## API

Physicist Edward Teller spoke about global warming that could melt the ice caps and submerge coastal cities at an oil industry symposium organized by the American Petroleum Institute (API) in the symposium called “Energy and Man” at the Columbia Graduate School of Business to commemorate the centennial of the oil industry in the United States. Over 300 government officials, economists, historians, scientists, and industry executives were present for Dr. Teller’s talk. He was a guest of honor for a grand occasion: the centennial of the American oil industry.

Edward Teller, on November 4, 1959, addressed the crowd in his presentation “Energy Patterns of the Future” and his words carried a warning: “Whenever you burn conventional fuel, you create carbon dioxide. [...] Carbon dioxide has a strange property. It transmits visible light but it absorbs the infrared radiation which is emitted from the earth. Its presence in the atmosphere causes a greenhouse effect [...] It has been calculated that a temperature rise corresponding to a 10 percent increase in carbon dioxide will be sufficient to melt the ice caps and submerge New York. All the coastal cities would be covered, and since a considerable percentage of the human race lives in coastal regions, I think that this chemical contamination is more serious than most people tend to believe.”

*Reference document:*

*“Energy Patterns of The Future” by Edward Teller.*

*Reference quote:*

*[greenoptimistic.com/edward-teller-global-warming-20180109/](http://greenoptimistic.com/edward-teller-global-warming-20180109/)*

# 1961

## OPEC

Because of the Anglo-American dominance in the oil economy, in 1961, The Organization of Petroleum Exporting Countries (OPEC) was formed, initially by Saudi Arabia, Iraq, Kuwait, Iran, and Venezuela to protect the sovereignty of each country's natural resources. It has since included Algeria, Angola, the Republic of the Congo, Equatorial Guinea, Gabon, Libya, Nigeria, and the United Arab Emirates.

*Reference document:*

*"Organization of the Petroleum Exporting Countries (OPEC)", Wikipedia entry.*

# 1962

## SHELL

Shell's chief geologist, Houston-based Marion King Hubbert, produced a book-length report on energy for the U.S. National Academy of Sciences that explicitly warned of the risks human-induced global warming could pose to earth's weather and "ecological balances."

Shell geologist Marion King Hubbert explicitly warned about the risks of man-made climate change, writing: "There is evidence that the increasing use of the fossil fuels [...] is contaminating the earth's atmosphere with CO<sub>2</sub>. [...] It is possible that this is already producing a secular climatic change in the direction of higher average temperatures."

*Reference document:*

*"A Crack in the Shell: New Documents Expose a Hidden Climate History" by The Center for International Environmental Law, April, 2018.*

# 1963

## WHITE HOUSE

The Clean Air Act (CAA) is the United States' primary federal air quality law, intended to reduce and control air pollution nationwide. Initially enacted in 1963 and amended many times since, it is one of the United States' first and most influential modern environmental laws.

The Clean Air Act of 1963 was the first federal legislation to permit the U.S. federal government to take direct action to control air pollution. It extended the 1955 research program, encouraging cooperative state, local, and federal action to reduce air pollution.

*Reference document:*

*Clean Air Act, Pub. L. Tooltip Public Law, United States, 88-206. 1963.*

# 1965

November 5

## WHITE HOUSE

United States' President Lyndon Johnson told Congress: "This generation has altered the composition of the atmosphere on a global scale through a steady increase in carbon dioxide from the burning of fossil fuels." In 1965 scientific advisors warned Johnson about climate change with a report by the Science Advisory Committee. The report contained an entire section discussing carbon dioxide from fossil fuels, which is described as "the invisible pollutant."

President Lyndon Johnson's Science Advisory Committee found that "pollutants have altered on a global scale the carbon dioxide content of the air" and "man is unwittingly conducting a vast geophysical experiment" by burning fossil fuels that are injecting CO<sub>2</sub> into the atmosphere. The committee concludes that by the year 2000, we could see "measurable and perhaps marked changes in climate, and will almost certainly cause significant changes in the temperature and other properties of the stratosphere."

*Reference document:*

*"Restoring the Quality of our Environment". Report of the Environmental Pollution Panel, President's Science Advisory Committee (PSAC).*

*Reference quote:*

*[climatefiles.com/climate-change-evidence/presidents-report-atmospher-carbon-dioxide/](http://climatefiles.com/climate-change-evidence/presidents-report-atmospher-carbon-dioxide/)*

# 1965

## API

In a speech by the President of American Petroleum Institute (API), Frank Ikard, at a major oil industry conference, he described federal research into climate change spurred by fossil fuels, saying: “The substance of the report is that there is still time to save the world’s people from the catastrophic consequence of pollution, but time is running out.” He outlined the findings of a report by then-president Lyndon Johnson’s Science Advisory Committee, based in part on research the institute conducted in the 1950s.

In a 1965 speech to members, American Petroleum Institute (API)'s President Frank Ikard stated that “one of the most important predictions of the report is that carbon dioxide is being added to the earth’s atmosphere by the burning of coal, oil, and natural gas at such a rate that by the year 2000 the heat balance will be so modified as possibly to cause marked changes in climate beyond local or even national efforts.”

*Reference document:*

*“Meeting the Challenges of 1966” by the American Petroleum Institute. 1965.*

*Reference quote:*

*[davidsuzuki.org/story/decades-of-denial-and-stalling-have-created-a-climate-crunch/](https://davidsuzuki.org/story/decades-of-denial-and-stalling-have-created-a-climate-crunch/)*

# 1966

August

## COAL INDUSTRY

In the industry publication Mining Congress Journal, James R. Garvey, who was the President of Bituminous Coal Research Inc. stated “changes in temperature will cause melting of the polar ice caps, which, in turn, would result in the inundation of many coastal cities, including New York and London” as a result of the combustion of fossil fuels, and particularly the use of coal.

James R. Garvey, who was the President of Bituminous Coal Research Inc., a now-defunct coal mining and processing research organization wrote: “There is evidence that the amount of carbon dioxide in the earth’s atmosphere is increasing rapidly as a result of the combustion of fossil fuels” and “If the future rate of increase continues as it is at the present, it has been predicted that, because the CO<sub>2</sub> envelope reduces radiation, the temperature of the earth’s atmosphere will increase and that vast changes in the climates of the earth will result”, and in particular Garvey wrote “such changes in temperature will cause melting of the polar ice caps, which, in turn, would result in the inundation of many coastal cities, including New York and London.”

*Reference document:*

*“Air Pollution and the Coal Industry” by James Garvey, article in the Mining Congress Journal. August 1966.*

# 1966

## SHELL

On behalf of Shell, the British scientist and chemist James Lovelock conducted climate research during this period into the potential global consequences of air pollution caused by fossil fuels. The title of his report was “Combustion of Fossil Fuels: Large Scale Atmospheric Effects.” In an unpublished essay written in 1966, Lovelock predicted that in the most likely scenario would see the world struck by an ecological disaster in the year 2000. Shell kept the results secret, asking Lovelock not to discuss them with “non-Shell people.”

Chemist James Lovelock wrote in his essay “Some thoughts on the year 2000” commissioned by Shell: “The most probable of all curbs is the threat of an ecological disaster. That could most probably arise through the accumulation of harmful waste products.” His conclusion: “What seems to be important is [...] the almost certain fact that the climate is worsening and the probability that the combustion of fuel is responsible.”

*Reference document:*

*“Some thoughts on the year 2000” by James Lovelock and “Combustion of Fossil Fuels: Large Scale Atmospheric Effects”. National Science. Collection JEL. Novembre 11, 1966.*



# 1967

## UN

The International Council for Science (ICSU) and the World Meteorological Organization (WMO) launched the Global Atmospheric Research Programme (GARP) to better understand the behavior of the atmosphere and the physical basis of climate. The World Meteorological Organization is a specialized agency of the United Nations responsible for promoting international cooperation on atmospheric science, climatology, hydrology, and geophysics.

The aim of the Global Atmospheric Research Programme (GARP) was to improve the models used for weather forecasting, but eventually it would be drawn into the climate issue. In 1967, a study by S. Manabe and R.T. Wetherald of the Geophysical Fluid Dynamics Laboratory at Princeton, had noted that a doubling of the CO<sub>2</sub> content of the atmosphere would lead to an increase in global mean temperature of 2°C.

*Reference document:*

*“Global Atmospheric Research Programme (GARP)”, Wikipedia entry.*

# 1967

## API

The American Petroleum Institute (API) protested against a bill to promote the development of electric cars with the argument that governments should “stimulate all efforts by industry to eliminate automotive pollution, rather than dedicate federal funds to the promotion of any single possible solution.”

*Reference document:*

*“Oil industry has sought to block state backing for green tech since 1960s” article by Ajit Niranjana, The Guardian, 2024.*

# 1968

February 1

## API

The American Petroleum Institute (API) commissioned a report finding that: “Significant temperature changes are almost certain to occur by the year 2000, and these could bring about climatic changes.” The research was written by Elmer Robinson and Bob Robbins, well known scientists at the Stanford Research Institute, known as SRI.

The paper commissioned by the American Petroleum Institute (API) and written by Elmer Robinson and Bob Robbins found that: “Although there are other possible sources for the additional CO<sub>2</sub> now being observed in the atmosphere, none seems to fit the presently observed situation as well as the fossil fuel emanation theory” and “significant temperature changes are almost certain to occur by the year 2000, and these could bring about climatic changes” concluding that “there seems to be no doubt that the potential damage to our environment could be severe.” This paper – along with a follow-up that Robinson and Robbins produced in 1969 – play a key role in lawsuits seeking to hold oil companies accountable for climate change. The 1969 paper cited models predicting atmospheric CO<sub>2</sub> would reach 370 parts per million by 2000 – astonishingly close to the actual reading.

*Reference document:*

*“Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants” by Elmer Robinson and Bob Robbins, Stanford Research Institute.*

*Reference quote:*

*[e360.yale.edu/features/climate-lawsuits-oil-industry-research](http://e360.yale.edu/features/climate-lawsuits-oil-industry-research)*

# 1970

January 1

## WHITE HOUSE

The National Environmental Policy Act (NEPA) was signed into law on January 1, 1970. NEPA required federal agencies to assess the environmental effects of their proposed actions prior to making decisions. It promoted the enhancement of the environment and established the President's Council on Environmental Quality.

*Reference document:*

*National Environmental Policy Act of 1969. Enacted by the 91st United States Congress.  
Effective January 1, 1970.*

# 1970

## SHELL

Shell appeared to accept responsibility for harms caused by its products in an industry journal article. The Dutch trade publication *Chemisch Weekblad* (Chemical Weekly) published research into “chemistry and ethics” which included the results of interviews with executives of Shell who admitted responsibility for “annoying consequences” from global warming.

Representatives from Shell appeared to acknowledge that the company bore some responsibility for the problems that its products would cause, stating that: “If a product is used, as indicated by Shell, and annoying consequences nevertheless arise, Shell feels partly responsible.”

*Reference document:*

*Chemisch Weekblad. Verantwoordelijkheid in een chemisch bedrijf CW. October 23, 1970.*

*Reference quote:*

*[ftm.eu/articles/new-shell-documents-could-aid-climate-cases-attorneys-say](https://ftm.eu/articles/new-shell-documents-could-aid-climate-cases-attorneys-say)*

# 1970

## ENI

A report by the Italian oil company ENI's Isvet research center warned of the “catastrophic” risks from the build-up of carbon dioxide, CO<sub>2</sub>. The report made clear that left unchecked, rising fossil fuel use could lead to a climate crisis within just a few decades.

The study commissioned by ENI between 1969 and 1970 made clear that left unchecked, rising fossil fuel use would lead to a climate crisis within just a few decades with “catastrophic” risks. Despite knowing about the risks of its products since 1970, ENI, Italy's largest multinational company and one of seven “supermajor” oil firms in the world, used “lobbying and greenwashing” to push for more fossil fuels.

*Reference document:*

*“L'intervento Pubblico Contro l'Inquinamento” by Gianni Scaiola.*

*Reference quote:*

*[downtoearth.org.in/news/energy/italian-oil-major-eni-lobbied-for-more-fossil-fuels-despite-1970-internal-report-warning-of-dangers-faces-lawsuit-89428](https://downtoearth.org.in/news/energy/italian-oil-major-eni-lobbied-for-more-fossil-fuels-despite-1970-internal-report-warning-of-dangers-faces-lawsuit-89428)*

# 1971

## TOTAL

An internal magazine by the major French oil company Total explained that burning fossil fuels caused the release of “enormous amounts of carbon dioxide” in the atmosphere, the consequences of which were potentially “catastrophic”. However the company, now rebranded as TotalEnergies, promoted doubt regarding the scientific basis for global warming by the late 1980s.

The article in the magazine Total Information mentioned that “since the 19th century, humans have been burning increasing amounts of fossil fuels. This results in the release of enormous quantities of carbon dioxide. [...] The overall amount of carbon dioxide present in the atmosphere, therefore, has increased significantly. [...] The increase has been around 15% over the last 150 years, which is not negligible. [...] If the consumption of coal and oil keeps the same rhythm in the years to come, the concentration of carbon dioxide will reach 400 parts per million around 2010.”

*Reference document:*

*“Atmospheric Pollution and Climate” by F. Durand-Dastès in Total Information N47, 1971.*

*Reference quote:*

*[sciencedirect.com/science/article/pii/S0959378021001655](https://www.sciencedirect.com/science/article/pii/S0959378021001655)*

# 1971

## WHITE HOUSE

Richard Nixon, President of the United States, imposed a price ceiling on oil in 1971 as demand increased and production declined. This led to greater dependence on foreign oil imports, as low prices boosted consumption. In 1973, Nixon announced the end of this quota system.

*Reference document:*

*"The 1973 Oil Crisis", Wikipedia entry.*



# 1973

## ENI

The Italian oil company ENI studied pollution problems with its company Tecneco, formed in Rome in 1971. A report by Tecneco from 1973 predicted that human activities could “gradually cause the disappearance of all life on earth.” Another section of the report stated that the “increase of carbon dioxide in the atmosphere is considered a potential cause of climate change.”

The report on the company Tecneco by ENI mentioned that “this increase in concentration is quite worrying [...] carbon dioxide plays a large role in the thermal balance of the atmosphere [...] air richer in carbon dioxide absorbs more radiation and heats up. It is possible, therefore, that an increase in the average temperature of the atmosphere is to be feared. The calculated orders of magnitude are obviously small (from 1-1.5 °C) but could have important impacts. Atmospheric circulation could be modified, and it is not impossible, according to some, to foresee at least a partial melting of the polar ice caps, which would certainly result in significant sea level rise. The catastrophic consequences are easy to imagine.”

*Reference document:*

*“Prima relazione sulla situazione ambientale del Paese”, TECNECO, Volume 1.*

*Reference quote:*

*[desmog.com/2023/09/24/italian-oil-giant-eni-knew-about-climate-change-more-than-50-years-ago-report-reveals/](https://desmog.com/2023/09/24/italian-oil-giant-eni-knew-about-climate-change-more-than-50-years-ago-report-reveals/)*

# 1973

## WHITE HOUSE

After the international 1973 Oil Crisis, the petrodollar system was created through a deal between the U.S. and Saudi Arabia. As a result, other countries in the Middle East agreed to price and trade oil in U.S. dollars, so any country that purchased oil from Saudi Arabia would have to use U.S. dollars. The 1973 agreement was initiated by Richard Nixon, President of the United States, and the petrodollar is still in place today, making the U.S. dominant in global oil trade.

During the 1973 Arab-Israeli War, Arab members of the Organization of Petroleum Exporting Countries (OPEC) imposed an embargo against the United States in retaliation for the U.S. decision to resupply the Israeli military and gain leverage in the post-war peace negotiations. The spark of the embargo was the Yom Kippur War in October 1973, when a coalition of Arab states led by Egypt and Syria launched a surprise attack on Israel on the holiest day of the Jewish calendar.

*Reference document:*

*"The 1973 Oil Crisis", Wikipedia entry.*

# 1974

## CHEVRON

Chevron obtained a patent for a method and apparatus for reducing ice forces on a marine structure prone to being frozen in ice through natural weather conditions, allowing for drilling in previously unreachable Arctic areas that would become seasonally accessible. In 1973 Exxon obtained a patent for a cargo ship capable of breaking through sea ice thanks to warmer temperatures. Shell obtained a patent similar to Exxon's in 1984.

*Reference document:*

*“Chevron Research & Technology Co., Patent US3831385A: Arctic offshore platform” granted on August 27, 1974. “Texaco Inc., Patent US3793840A: Mobile, arctic drilling and production platform” granted on February 26, 1974.*

# 1974

## FORD

A Ford Foundation study drew the clear conclusion that global warming would become a major problem. In said scenario, the authors warned about the “complete melting of Arctic sea ice” and “widespread disruption of agriculture” as well as a rise in sea levels of “more than twenty feet (6m)”. According to the authors, a possible solution would be a “zero energy growth” policy, which would make moving away from fossil fuels inevitable.

An investigation by E&E News revealed that scientists working at two of the largest American automakers had knowledge as far back as the 1960s that car emissions contributed to climate change. However the political lobbying by the two car giants Ford and General Motors undermined global attempts to reduce emissions while stalling U.S. efforts to make vehicles cleaner.

*Reference document:*

*“A Time To Choose: America’s Energy Future” by America’s Ford Foundation. 1974.*

*Reference quote:*

*[eenews.net/articles/exclusive-gm-ford-knew-about-climate-change-50-years-ago/](http://eenews.net/articles/exclusive-gm-ford-knew-about-climate-change-50-years-ago/)*

# 1975

## GM

Ruth Annette Gabriel Reck, a researcher at the General Motors Research Laboratories was allowed by the GM's executives to publish her findings on climate change, including a paper in *Science*, where she asserted that aerosols caused "heating of the atmosphere near the poles." Reck left the automaker in 1992 after she was allegedly told to stop researching environmental issues.

*Reference document:*

*"Aerosols and Polar Temperature Changes" by Ruth A. Reck. Science, New Series, Vol. 188, No. 4189, May 16, 1975.*

# 1975

## API

The American Petroleum Institute (API) opposed an energy saving bill that included refundable income tax credits for heat pumps in homes. “The United States has a large resource base of conventional energy such as oil, gas, and coal” it said, and that “expeditious development of these supplies can make a significant contribution not only to improving U.S. energy independence, but to create a healthy economy.”

*Reference document:*

*“Oil industry has sought to block state backing for green tech since 1960s” article by Ajit Niranjana, The Guardian, 2024.*

# 1975

## SHELL

A study partially funded and commissioned by Shell, stated that “increases in the CO<sub>2</sub> content of the atmosphere could lead to the so-called greenhouse effect [...] due to fossil fuel waste disposal [...] which would be enough to induce major climatic changes.” Three years later, another report warned that “the continued burning of fossil fuels will lead to a manifold increase in the atmospheric CO<sub>2</sub> concentration.”

*Reference document:*

*“Dirty Pearls: Exposing Shell’s hidden legacy of climate change accountability, 1970-1990” by Vatan Hüzeir. 2023.*

# 1977

July

# EXXON

Senior scientist James Black, top technical expert in Exxon's Research & Engineering division, delivered a sobering message to Exxon's Management Committee. He stated: "In the first place, there is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide release from the burning of fossil fuels." At the meeting at Exxon Corporation's headquarters, Exxon's leaders received this blunt assessment well before the climate crisis had become widely recognized.

*Reference document:*

*Presentation shared with Exxon Management Committee from Exxon Research and Engineering Science Advisor, James Black.*



# 1978

June 6

## EXXON

A year after Exxon's Science Advisor, James Black, had warned the company's Management Committee about the dangers of climatic changes, he released an updated version of his presentation to a broader audience. He warned that a doubling of carbon dioxide (CO<sub>2</sub>) concentration in the atmosphere could increase average global temperatures by 2 to 3 degrees Celsius, and by as much as 10 degrees Celsius at the poles. Rainfall might become heavier in some regions, while other places could turn into deserts.

James Black said, in the written summary of his talk, "some countries would benefit but others would have their agricultural output reduced or destroyed." Black estimated that quick action was needed. "Present thinking" he wrote in the summary, "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."

*Reference document:*

*"Exxon: The Road Not Taken" by John H. Cushman (Jr.), Neela Banerjee, David Hasemyer, Lisa Song. 2015.*

*Reference quote:*

*[insideclimatenews.org/news/16092015/exxons-own-research-confirmed-fossil-fuels-role-in-global-warming/](https://insideclimatenews.org/news/16092015/exxons-own-research-confirmed-fossil-fuels-role-in-global-warming/)*

# 1978

September 17

## WHITE HOUSE

Congress passes the National Climate Policy Act to help “the Nation and the world to understand and respond to natural and man-induced climate processes and their implications.”

Introduced in the U.S. Congress’s House in 1976, the National Climate Program Act “directs the Secretary of Commerce to coordinate the establishment and operation of a Federal climate program for the collection, analysis, and dissemination of data concerning climatic states and the influence of man’s activities on climatic dynamics.”

*Reference document:*

*National Climate Program Act 94th Congress, 1975-1976.*

*Reference quote:*

*[congress.gov/bill/94th-congress/house-bill/12246](https://www.congress.gov/bill/94th-congress/house-bill/12246)*

# 1978

December 7

## EXXON

Exxon scientist Henry Shaw proposed that the company initiate a comprehensive research program “to assess the possible impact of the greenhouse effect on Exxon business.” He argued that the company needed “a credible scientific team that can critically evaluate the information generated on the subject and be able to carry bad news, if any, to the corporation.”

*Reference document:*

*CO<sub>2</sub> Research Proposal from Exxon Research and Engineering's Environmental Area Manager, by Henry Shaw.*

# 1978

## ENI

The Italian oil company ENI published a study by its company Tecneco, stating that: “Carbon dioxide, CO<sub>2</sub>, is the ultimate oxidation product of fossil fuels [...] it exists in air in concentrations of about 300 ppm and only human activity increases this value by interfering with natural processes, so that above a certain threshold it becomes a pollutant.”

The report by Tecneco of ENI warned that continued production and use of fossil fuels would “alter the heat balance of the atmosphere, leading to climatic change with serious consequences for the biosphere.” Another section predicted that “climatic changes may occur on a regional scale due to the continued, increasing consumption of fossil fuels, and this may become a major problem by the end of the century [...] the best available data indicate that the CO<sub>2</sub> content of the atmosphere will reach 375-400 ppm in the year 2000; this would increase the temperature of the atmosphere by 0.5 °C.” ENI’s prediction was quite accurate: global warming in the year 2000 was exactly 0.5 °C and CO<sub>2</sub> concentrations were around 370 ppm.

*Reference document:*

*“Ambienti e Fonti di Energia Esauribili e Rinnovabili”, ECNECO, Page 7, 1978.*

*Reference quote:*

*[commdreams.org/news/eni-knew](http://commdreams.org/news/eni-knew)*

# 1979

February 12

## UN

The first “World Climate Conference” organized by the World Meteorological Organization (WMO) expressed concern that “continued expansion of man’s activities on earth may cause significant extended regional and even global changes of climate.” It called for “global cooperation to explore the possible future course of global climate and to take this new understanding into account in planning for the future development of human society.”

The chair of the “World Climate Conference” warned that the “growing dependence” on coal could well become “the most serious threat to the world’s climate.” In the same year, 1979, a group of American climate scientists published the famous Charney report, which is considered a milestone in climate science for its accuracy in projecting the rate at which human-induced increases in the concentration of atmospheric CO<sub>2</sub> would cause global temperatures to rise.

*Reference document:*

“World Climate Conference”, *Wikipedia entry*.

*Reference quote:*

*climateconversation.org.nz/2012/05/reflections-on-a-changing-climate/*

# 1979

August 8

## EXXON

Exxon started research on how much CO<sub>2</sub> the ocean can absorb. The experiment began on August 8, 1979, with a state-of-the-art lab aboard the Esso Atlantic, one of the biggest supertankers of the time. Exxon's plan was to gather atmospheric and oceanic CO<sub>2</sub> samples from the Gulf of Mexico to the Persian Gulf.

David Shaw, main researcher on the supertanker Esso Atlantic project, said in an interview: "Our goal was to complete the carbon cycle to understand where global carbon production would end up and then make forecasts of how the system would react in the future."

*Reference document:*

*"Exxon Believed Deep Dive Into Climate Research Would Protect Its Business" by Neela Banerjee, Lisa Song, David Hasemyer, Inside Climate News. September 17, 2015.*

# 1979

October 16

## EXXON

An Exxon internal study found that: “The present trend of fossil fuel consumption will cause dramatic environmental effects before the year 2050. [...] Recognizing the uncertainty, there is a possibility that an atmospheric CO<sub>2</sub> buildup will cause adverse environmental effects in enough areas of the world to consider limiting the future use of fossil fuels as major energy sources” and that “the potential problem is great and urgent.”

David Shaw wrote in a November 1979 letter to Senior Vice President George T. Piercy that the research “could well influence Exxon’s view about the long-term attractiveness of coal and synthetics relative to nuclear and solar energy” in a another memo he wrote “it behooves us to start a very aggressive defensive program in the indicated areas of atmospheric science and climate because there is a good probability that legislation affecting our business will be passed.”

*Reference document:*

*“Controlling the CO<sub>2</sub> Concentration in the Atmosphere” study by Exxon employee Steve Knisely.*

*Reference quote:*

*[insideclimatenews.org/news/17092015/exxon-believed-deep-dive-into-climate-research-would-protect-its-business/](https://insideclimatenews.org/news/17092015/exxon-believed-deep-dive-into-climate-research-would-protect-its-business/)*

# 1980

February 29

## API

Dr. J. Laurman told the American Petroleum Institute (API)'s Climate Task Force that “there is a scientific consensus on the potential for large future climatic response to increased CO<sub>2</sub> levels” and that “remedial actions will take a long time to become effective.”

*Reference document:*

*Meeting Minutes from the American Petroleum Institute's CO<sub>2</sub> and Climate Task Force. Presentation by Dr. J. Laurman.*



# 1980

July  
API

The American Petroleum Institute (API) published the booklet “Two Energy Futures: a National Choice for the 80s” in which the industry acknowledged that carbon dioxide was a “pollutant” but casted doubt on the role of CO<sub>2</sub> in global warming by misrepresenting what prominent scientists said at the time.

*Reference document:*

*“Two Energy Futures: A National Choice for the 80s” by the American Petroleum Institute, Washington, DC. ISBN-0-89364-050-6.*

# 1980

August 6

## IMPERIAL OIL

An internal review by Imperial Oil, an Exxon's Canadian subsidiary, which was distributed widely to Exxon Corporate Managers, found that "it is assumed that the major contributors of CO<sub>2</sub> are the burning of fossil fuels" and that "technology exists to remove CO<sub>2</sub> from stack gasses but removal of only 50% of the CO<sub>2</sub> would double the cost of power generation."

The lines appeared in the report "Review of Environmental Protection Activities for 1978-1979" produced by Imperial Oil, Exxon's Canadian subsidiary, mentioning that "it is assumed that the major contributors of CO<sub>2</sub> are the burning of fossil fuels. [...] There is no doubt that increases in fossil fuel usage and decreases in forest cover are aggravating the potential problem of increased CO<sub>2</sub> in the atmosphere."

*Reference document:*

*"Review of Environmental Protection Activities for 1978-1979" by Imperial Oil Report, Exxon's Canadian Subsidiary.*

# 1981

August 18

## EXXON

Exxon Strategic Planning Manager Roger Cohen commented in an internal assessment of CO<sub>2</sub> emissions and the greenhouse effect prepared at the request of Senior VP and Director Morey O'Loughlin: "It is very likely that we will unambiguously recognize the threat by the year 2000 because of advances in climate modeling and the beginning of real experimental confirmation of the CO<sub>2</sub> effect" adding "whereas I can agree with the statement that our best guess is that observable effects in the year 2030 will be 'well short of catastrophic', it is distinctly possible that the Planning Division's scenario will later produce effects that will indeed be catastrophic (at least for a substantial fraction of the earth's population)."

*Reference document:*

*Memo from Roger Cohen, Director of Exxon's Theoretical and Mathematical Science Laboratory, to Scientist Werner Glass.*

# 1982

April 1

## EXXON

An internal Exxon “CO<sub>2</sub> ‘Greenhouse Effect’ Summary” found that “there is concern among some scientific groups that once the effects are measurable, they might not be reversible and little could be done to correct the situation in the short term” and that “mitigation of the ‘greenhouse effect’ could require major reductions in fossil fuel combustion.”

*Reference document:*

*“CO<sub>2</sub> ‘Greenhouse’ Effect” internally distributed summary by Exxon Manager M.B. Glaser of a technical review prepared by Exxon Research and Engineering Company’s Coordination and Planning Division.*

# 1982

September 2

## EXXON

The Director of Exxon's Theoretical and Mathematical Sciences Laboratory, Roger Cohen, summarized the findings of their research in climate modeling, stating that "over the past several years a clear scientific consensus has emerged regarding the expected climatic effects of increased atmospheric CO<sub>2</sub>" and "it is generally believed that the first unambiguous CO<sub>2</sub>-induced temperature increase will not be observable until around the year 2000" adding that "the results of our research are in accord with the scientific consensus on the effect of increased atmospheric CO<sub>2</sub> on climate."

*Reference document:*

*Memo from Roger Cohen, Director of Exxon's Theoretical and Mathematical Science Laboratory, to Exxon Management Including President of Exxon Corporation's Research and Engineering, E. E. David Jr.*

# 1982

October

## EXXON

In a speech, E. E. David Jr., President of Exxon Research and Engineering Company, stated: “It is ironic that the biggest uncertainties about the CO<sub>2</sub> buildup are not in predicting what the climate will do, but in predicting what people will do. [...] It appears we still have time to generate the wealth and knowledge we will need to invent the transition to a stable energy system.”

*Reference document:*

*“Inventing the Future: Energy and The CO<sub>2</sub> ‘Greenhouse’ Effect” E. E. David Jr. Remarks at the Fourth Annual Ewing Symposium, Tenafly, New Jersey.*

# 1985

March

## SHELL

In a journal, T.G. Wilkinson, who worked at the time in the Ecology Section of Shell UK's Long Term Business Planning Unit, explored the risks posed by "energy-generated pollution." Wilkinson also considered if a precautionary approach should be adopted to prevent the "potential enormous effects on the world's climate" and considering that "the dilemma therefore remains as to whether to encourage the continued use of fossil fuels with the potential enormous effects on the world's climate."

T.G. Wilkinson of Shell wrote that the "burning of fossil fuels which have taken millions of years to form has effectively upset the balance leading to an increase in CO<sub>2</sub> in the atmosphere" adding that "the Greenhouse effect could lead to some melting of the ice caps and a significant change in the climatic pattern throughout the world. Whilst this will cause major adverse changes to some areas, others will benefit."

*Reference document:*

*Journal Conservation & Recycling, T.G. Wilkinson.*

*Reference quote:*

*[desmog.com/2024/01/17/new-shell-files-could-aid-climate-cases-attorneys-say/](https://desmog.com/2024/01/17/new-shell-files-could-aid-climate-cases-attorneys-say/)*

# 1985

October  
UN

A meeting in Villach was the culmination of a process in which three international organizations – ICSU, UNEP, and WMO – joined forces to bring an issue onto the international policy agenda. The meeting turned out to be the spark that lit the fire that awakened the world’s governments, ultimately leading to the creation of the Intergovernmental Panel on Climate Change (IPCC) in 1988. In Villach in Austria, the meeting was a small gathering of climate scientists intending to discuss the results of one of the first international assessments of the potential for human-induced climate change.

*Reference document:*

*“The origins of the IPCC: How the world woke up to climate change” from the International Science Council.*



# 1985

December 10

## WHITE HOUSE

Carl Sagan, a renowned astrophysicist, delivered a compelling and prescient speech to Congress about climate change, stating that “at the present rate, the burning of fossil fuels [...] has a variety of consequences, including redistribution of local climates and, through the melting of glaciers, an increase in global sea level.” He suggested investment in renewable energy by saying “if we don’t do the right thing now, there are very serious problems that our children and grandchildren will have to face.”

Carl Sagan told Congress “at the present rate of the burning of fossil fuels, the present rate of increase of minor infrared absorbing gasses in the earth’s atmosphere, that there will be a several centigrade degree temperature increase on the earth’s global average by the middle to the end of the next century. And that has a variety of consequences, including redistribution of local climates and, through the melting of glaciers, an increase in global sea level. There is concern on a somewhat longer time scale about the collapse of the West Antarctic ice sheet and a general rise of many meters in sea level.” He adds “what can be done about it? The idea that we should immediately stop burning fossil fuel has such severe economic consequences that no one, of course, will take it seriously. But there are many other things that can be done. One has to do with subsidies for fossil fuels. More efficient use could be encouraged by fewer government subsidies. [...] Secondly, there are alternative energy sources, some of which are useful, at least locally. Solar power is certainly one that might be of more general use.”

*Reference document:*

*“Greenhouse Effect. Witnesses testified on how the greenhouse effect will change the global climate system and possible solutions”. December 10, 1985.*

*Reference quote:*

*[theanalysis.news/carl-sagan-testifying-before-congress-in-1985-on-climate-change/](https://theanalysis.news/carl-sagan-testifying-before-congress-in-1985-on-climate-change/)*

# 1985

December 22

## NEW YORK TIMES

The first Op-Ed on The New York Times by Mobil Oil appeared in December 1985, and it was published regularly for 15 years until 2000. This form of subtle advertising was created for the first time for Mobil Oil. ‘Op-Ed’ means advertising on the page opposite the editorial page and it was initiated by Herbert Schmertz as a Mobil Oil executive, also known as the man who invented ‘Modern PR’.

In a briefing called “Corporations and the First Amendment” that Schmertz wrote for the American Management Association in 1978, he explained why he chose the New York Times for those advertisements. He stated: “The Times was chosen because it is published in the nation’s leading population, communications and business center; because it has a highly intelligent, vocal, sophisticated readership and because it reaches legislators and other government officials. In short, it was the paper most likely to reach the largest number of opinion leaders and decision makers.” Schmertz also talked about the program as a great success, concluding “Mobil found that the medium worked.”

*Reference document:*

*“While the Oil is Hot” article in the New York Times, December 22, 1985.*

*Reference quote:*

*[desmog.com/s3ep4-oil-slick-part-1-rise-corporate-persona/](https://www.desmog.com/s3ep4-oil-slick-part-1-rise-corporate-persona/)*

# 1987

## SHELL

Shell's growing understanding of the risks posed by burning its products appeared in the publication "Air Pollution: an Oil Industry Perspective." The authors of the internal Shell publication wrote that "it is feared that a further rise in carbon dioxide levels in the atmosphere could lead to a higher average surface temperature on earth, which could have far-reaching environmental, social, and economic consequences" adding that "a lot of scientific research is being done to determine which climatic changes can occur and which measures should be taken."

*Reference document:*

*"Air Pollution: an Oil Industry Perspective" Shell Briefing Service, NR1, 1987.*

*Reference quote:*

*[desmog.com/2024/01/17/new-shell-files-could-aid-climate-cases-attorneys-say/](https://desmog.com/2024/01/17/new-shell-files-could-aid-climate-cases-attorneys-say/)*

# 1988

June 23

## WHITE HOUSE

Dr. James Hansen, Director of NASA's Goddard Institute for Space Studies, warned the Congress that the Institute's greenhouse effect research showed that "the global warming is now large enough that we can ascribe with a high degree of confidence a cause and effect relationship with the greenhouse effect." James Hansen and other experts testified before the Senate Energy and Natural Resources Committee about the impact of global warming.

Dr. James Hansen, climatologist at NASA, stated that "altogether, this evidence represents a very strong case, in my opinion, that the greenhouse effect has been detected, and it is changing our climate now."

*Reference document:*

*Transcript of pivotal climate-change hearing from NASA scientists. June 23, 1988.*

*Reference quote:*

*[youtube.com/watch?v=UVz67cwmxTM](https://www.youtube.com/watch?v=UVz67cwmxTM)*

# 1988

June 24

## NEW YORK TIMES

On the frontpage of the New York Times in 1988, the headline announced “Global Warming Has Begun, Expert Tells Senate”, when Nasa climatologist James Hansen warned the U.S. Congress that the greenhouse effect was causing global warming.

On the front page of The New York Times, the article mentioned that “the earth has been warmer in the first five months of this year than in any comparable period since measurements began 130 years ago, and the higher temperatures can now be attributed to a long-expected global warming trend linked to pollution, a space agency scientist reported today” adding that “by burning of fossil fuels and other activities, have altered the global climate in a manner that will affect life on earth for centuries to come.”

*Reference document:*

*“Global Warming Has Begun, Expert Tells Senate” by Philip Shabecoff. Special in the New York Times, June 24, 1988.*

# 1988

## WHITE HOUSE

The U.S. Congress introduced the National Energy Policy Act in an effort to reduce emissions of heat-trapping gasses and at least four bipartisan bills were introduced in Congress, three championed by Republicans, to regulate greenhouse gas emissions.

The National Energy Policy Act of 1988 “establishes as national goals: that the amount of carbon dioxide in the atmosphere be reduced from 1988 levels by at least 20 percent by the year 2000 through a mix of Federal and State energy policies; and the establishment of an International Global Agreement on the Atmosphere by 1992.”

*Reference document:*

*Bill S.2667 - National Energy Policy Act. Introduced in the Senate on July 28, 1988.*

# 1988

## SHELL

In an internal study marked 'Confidential', called "The Greenhouse Effect", the company warned about the dire consequences: "The environment may be degraded to such an extent that some parts of earth will become uninhabitable." Shell researchers noted that "the main cause of increasing CO<sub>2</sub> concentrations is considered to be fossil fuel burning." It also revealed an internal Shell climate science program dating back to 1981.

The document stated that "with very long time scales involved, it would be tempting for society to wait until then to begin doing anything" adding that "the potential implications for the world are, however, so large, that policy options need to be considered much earlier. And the energy industry needs to consider how it should play its part."

*Reference document:*

*"The Greenhouse Effect" by Shell International Petroleum, Health, Safety and Environment Division, The Hague, 1988.*

# 1988

August 3

## EXXON

The Exxon Public Affairs Manager, Joseph Carlson wrote that Exxon's position should be to "emphasize the uncertainty in scientific conclusions regarding the potential enhanced Greenhouse Effect." This was one of the first evidence of strategies of denial by Exxon and other fossil fuel companies.

*Reference document:*

*"The Greenhouse Effect" draft written by Joseph M. Carlson. 1988.*



# 1988

August 31

## WHITE HOUSE

Vice President George H.W. Bush (Sr.), in a speech while running for President, said “those who think we are powerless to do anything about the greenhouse effect forget about the ‘White House effect’; as President, I intend to do something about it.”

*Reference document:*

*Vice President George H.W. Bush (Sr.) Campaign Speech in Michigan.*

# 1988

November 30

## MOBIL

Mobil Oil's President Richard F. Tucker cited the "Greenhouse Effect" in a list of serious environmental challenges during a speech at an American Institute of Chemical Engineers national conference. In the speech (it was subsequently submitted as testimony to Congress) Tucker mentioned that action to address the greenhouse effect might require "a dramatic reduction in our dependence on fossil fuels."

Mobil Oil's President stated: "Our strategy must be to reduce pollution before it is ever generated – to prevent problems at the source" adding "that will involve working at the edge of scientific knowledge and developing new technology at every scale on the engineering spectrum. [...] Prevention on a global scale may even require a dramatic reduction in our dependence on fossil fuels – and a shift toward solar, hydrogen, and safe nuclear power. It may be possible – just possible – that the energy industry will transform itself so completely that observers will declare it a new industry."

*Reference document:*

*"High Tech Frontiers in the Energy Industry, the Challenges Ahead" by Mobil Oil's President Richard F. Tucker. Washington D.C., November 30, 1988.*

*Reference quote:*

[huffpost.com/entry/internal-documents-show-f\\_b\\_7749988](https://huffpost.com/entry/internal-documents-show-f_b_7749988)

# 1988

December 6  
UN

The Intergovernmental Panel on Climate Change (IPCC) is formed in December 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.

*Reference document:*

*“Intergovernmental Panel on Climate Change”, Wikipedia entry.*

# 1988

## ENI

An issue of the Italian oil company ENI's corporate magazine Ecos – widely read by employees and executives – warned that continued use of “fossil sources” for energy would produce a “greenhouse effect that could lead to climate change with devastating effects on the entire earth's ecosystem.”

Another issue of ENI's corporate magazine Ecos, from the same year, stated that as research on global warming continued “it is incumbent on us to work as of now, as far as possible, to contain the phenomenon of carbon dioxide emissions. [...] It is generally agreed that it is very important to ‘buy time’ so as to refine the complex prediction models and identify the most appropriate solutions. Buying time means limiting the increase in CO<sub>2</sub> as far as possible.”

*Reference document:*

*“ENI Knew, Too: Probe Shows Italian Oil Giant Was Aware of Climate Impacts in 1970”  
by Olivia Rosane on Common Dreams. September 25, 2023.*

*Reference quote:*

*desmog.com/2023/09/24/italian-oil-giant-eni-knew-about-climate-change-more-than-50-years-ago-report-reveals/*

# 1989

## GCC

Fifty U.S. corporations and trade groups created the Global Climate Coalition (GCC) to discredit climate science and derail regulations. Its founding members included API, BP, Chevron, Exxon, Shell, Texaco, Mobil Oil, Edison, as well as GM and Ford. Until it disbanded in 2002, GCC conducted a multimillion-dollar lobbying and public relations campaign to undermine national and international efforts to address global warming.

*Reference document:*

*"The Climate Deception Dossiers". Published on June 29, 2015.*

# 1989

## MARSHALL INSTITUTE

The George C. Marshall Institute's "Climate Change Policy" program started in 1989 in Berlin as a "critical examination of the scientific basis for global climate change policy." According to the Marshall Institute, a major part of the program was "communicating the findings to policy makers, the media, and the public policy community." Marshall Institute was part of an effort by fossil fuel companies to scientifically confuse the origins of the greenhouse effect.

*Reference document:*

*"George C. Marshall Institute (GMI), Now CO2 Coalition" from Climate Disinformation Database, DeSmog.*

# 1989

April

## SHELL

Ged Davis, a Shell executive, warned that “global warming could challenge the very fabric of the world’s ecological and economic systems” and also foresaw the possible cost for future generations if emissions weren’t curbed.

In an excerpt from Shell executive Ged Davis’s contribution to a 1989 report by the OECD wrote “whatever policies are chosen there will be winners and losers, and that “two groups who could bear particularly heavy costs will be: future generations who would have to live with the costs of adaptation, and [...] those in countries yet to industrialize who would face constraints on energy use. [...] How should we allocate resources between prevention and adaptation?”

*Reference document:*

*“Energy Technologies for Reducing Emissions of Greenhouse Gases” OECD Report, 1989.*

*Reference quote:*

*[desmog.com/2024/01/17/new-shell-files-could-aid-climate-cases-attorneys-say/](https://desmog.com/2024/01/17/new-shell-files-could-aid-climate-cases-attorneys-say/)*

# 1989

October

## SHELL

A confidential study showed that in 1989 the company was discussing the global social consequences of an increase in temperature of “considerably more” than 1.5 degrees that would displace entire populations.

The study mentioned that “the potential refugee problem [...] could be unprecedented. Africans would push into Europe, Chinese into the Soviet Union, Latins into the United States, Indonesians into Australia. Boundaries would count for little – overwhelmed by the numbers. Conflicts would abound. Civilization could prove a fragile thing.” The report warned also that “many species of trees, plants, animals and insects would not be able to move and adapt.”

*Reference document:*

*Confidential Shell’s “Group Planning Scenarios 1989-2010 Challenge and Response”.  
October, 1989.*

*Reference quote:*

*[commondreams.org/news/shell-fossil-fuels-climate-1970s](http://commondreams.org/news/shell-fossil-fuels-climate-1970s)*



# 1989

December 20

## NEW YORK TIMES

A New York Times article reported that: “In what is considered the first major project that takes account of the changes the greenhouse effect is expected to bring, Shell engineers are designing a huge platform that anticipates rising water in the North Sea by raising the platform from the standard 30 meters – the height now thought necessary to stay above the waves that come in a once-a-century storm – to 31 or 32 meters.”

*Reference document:*

*“Greenhouse Effect: Shell Anticipates A Sea Change” article in The New York Times, December 20, 1989.*

# 1989

## GM

In a “Public Interest Report” General Motors’s public relations department portrayed the field of climate science as full of uncertainties. Also in 1989, General Motors and Ford joined the Global Climate Coalition, a group that opposed efforts to reduce greenhouse gas emissions.

*Reference document:*

*“The Climate Deception Dossiers”. Published on June 29, 2015.*

# 1990

## UN

The Intergovernmental Panel on Climate Change (IPCC) published its First Assessment Report and the UN General Assembly noted the report findings and decided to initiate negotiations for a framework convention on climate change.

*Reference document:*

*"IPCC First Assessment Report", Wikipedia entry.*

# 1991

## SHELL

Shell released a 30-minute educational video warning of climate change's negative consequences ranging from sea level rise and wetland destruction to "greenhouse refugees." It concluded that "global warming is not yet certain, but many think that the wait for final proof would be irresponsible. Action now is seen as the only safe insurance."

*Reference document:*

*"Climate of Concern" documentary produced and distributed by Royal Dutch Shell, United Kingdom, 1991.*

# 1991

May  
ICE

The Information Council for the Environment (ICE), formed by the coal industry, launched a national climate change science denial campaign with data collection, full-page newspaper advertisements, radio commercials, a PR tour, and mailers. ICE was formed by and closely linked to fossil fuel companies and trade associations, including the Edison Electric Institute, the Western Fuels Association, and the National Coal Association. One of the Vice Presidents of the board of directors of the ICE campaign was Fred Palmer, he later became the CEO of Western Fuels and then senior vice president at Peabody Energy.

An advertisement aired is emblematic of the tone and content of ICE's messaging: "Stop panicking! I'm here to tell you that the facts simply don't jibe with the theory that catastrophic global warming is taking place. Try this fact on for size. Minneapolis has actually gotten colder. So has Albany, New York." This advertisement was created by Simmons Advertising, Inc. in 1991. The leaked ICE documents also show that the group planned to particularly target younger, lower-income women with its deceptive messages, noting that: "These women are more receptive than other audience segments to factual information concerning the evidence for global warming. They are likely to be green consumers, to believe the earth is warming, and to think the problem is serious. However, they are also likely to soften their support for federal legislation after hearing new information on global warming."

*Reference document:*

*"Information Council for the Environment (ICE) PR Campaign", Wikipedia entry.*

*Reference quote:*

*desmog.com/information-council-environment/*

# 1991

## KOCH

The Cato Institute is established as a Koch-funded think tank, and held a seminar in Washington called “Global Environmental Crises: Science or Politics?”. This was part of a decades-long effort to cast doubt on the reality of climate change. Koch Petroleum Group was a major refining and chemicals company, owning the largest oil refineries and pipeline networks that transport oil in the United States.

The New York Times described the influence of Koch: “Construction on the Koch political machine began in the 1970s, after Charles Koch took over the family company. The brothers Charles and David began funding and orchestrating a political project to restrain government power in the United States through lobbying, think tanks, and political donations. For instance the Americans for Prosperity (AFP), founded in 2004, is a libertarian conservative political advocacy group in the United States affiliated with the Koch brothers.”

*Reference document:*

*“Cato Institute”, Wikipedia entry.*

*Reference quote:*

*[nytimes.com/2019/08/23/opinion/sunday/david-koch-climate-change.html](https://www.nytimes.com/2019/08/23/opinion/sunday/david-koch-climate-change.html)*

# 1992

June 13

## WHITE HOUSE

United States' President George H.W. Bush (Sr.) signed the The Rio Declaration, which was approved by the United Nations during the Conference on Environment and Development (UNCED), by name Earth Summit, held in Rio de Janeiro in June 1992.

George H.W. Bush (Sr.), on June 12, 1992, announced the following: "We have come to Rio. We have not only seen the concern, we share it. We not only care, we are taking action. We come to Rio with an action plan on climate change. It stresses energy efficiency, cleaner air, reforestation, and new technology. I am happy to report that I have just signed the Framework Convention on Climate Change." On June 13 he added: "We have signed a climate convention. We have asked others to join us in presenting action plans for the implementation of the climate convention. We have won agreement on forest principles."

*Reference document:*

*The President's News Conference in Rio de Janeiro, June 13, 1992.*

*Reference quote:*

*[govinfo.gov/content/pkg/PPP-1992-book1/html/PPP-1992-book1-doc-pg924-2.htm](http://govinfo.gov/content/pkg/PPP-1992-book1/html/PPP-1992-book1-doc-pg924-2.htm)*

# 1994

## SHELL

Environmental Advisor of Shell, Peter Langcake, published a scientific report outlining “major developments in scientific understanding and the implications for policy formulation” that recognized “the threat of climate change as the environmental concern [...] it has the greatest significance for the fossil fuel industry.”

The report recognized that many of IPCC skeptics “only raise questions or point to uncertainties rather than offer convincing alternative positions.” Despite this observation, Langcake did the same, warning against “no regrets measures” that would be premature, further distort markets, and divert resources from “more pressing needs.”

*Reference document:*

*“The Enhanced Greenhouse Effect: a review of the scientific aspects”. Shell Report, 1994.*



# 1995

## MOBIL

An Internal document by a team headed by a scientist Leonard S. Bernstein at Mobil Oil, which was distributed to other major fossil fuel companies, unequivocally stated: “The scientific basis for the Greenhouse Effect and the potential impact of human emissions of greenhouse gasses such as CO<sub>2</sub> on climate is well established and cannot be denied.” The document, which came to light in 2009, was leaked to the New York Times after surfacing in a lawsuit filed by the auto industry against the state of California’s efforts to limit vehicles’ carbon emissions.

*Reference document:*

*“Industry Ignored Its Scientists on Climate” article in the New York Times by Andrew C. Revkin. April 23, 2009.*

# 1995

December  
GCC

The Global Climate Coalition (GCC), a fossil fuel industry group, drafted an internal primer analyzing “contrarian theories” and concluding that they do not “offer convincing arguments against the conventional model of greenhouse gas emission-induced climate change.” However, a publicly distributed version excluded this section while focusing on scientific disagreement and uncertainty by citing some of those same contrarian scientists.

*Reference document:*

*“Science and Global Climate Change: What Do We Know? What Are The Uncertainties?” by Global Climate Coalition’s (GCC). Internal Primer Draft, Prepared by GCC’s Science Technical Advisory Committee.*

# 1996

## API

The American Petroleum Institute (API) published the book “Reinventing Energy”, which supported climate denial and argued for inaction by reinforcing uncertainty of the science.

*Reference document:*

*“Reinventing Energy: Making the Right Choices” by the American Petroleum Institute (API). 1996.*

# 1996

## EXXON

An eight-page Exxon publication questioned the negative impact the greenhouse effect might have and played up the uncertainty. The introductory statement by Lee Raymond, Exxon's chairman and CEO, claimed that "scientific evidence remains inconclusive as to whether human activities affect global climate."

*Reference document:*

*"Global Warming: who's right? Facts about a debate that's turned up more questions than answers" publication from Exxon Corporation.*

# 1997

December 11

## WHITE HOUSE

The Kyoto Protocol was adopted on 11 December 1997. Owing to a complex ratification process, it entered into force on 16 February 2005. The Kyoto Protocol was the first major international effort to slow global climate change as an agreement under the United Nations Framework Convention on Climate Change (UNFCCC). It was the world's only legally binding treaty to reduce greenhouse emissions. However, because many major emitters were not part of Kyoto, it only covered about 18% of global emissions.

The Kyoto Protocol was signed at the United Nations in New York by Acting U.N. Ambassador Peter Burleigh, saying “the United States will today sign the Kyoto Protocol, reaffirming its commitment to work with countries around the world to meet the challenge of global warming. [...] The United States signs the protocol in the firm belief that it will serve its environmental, economic, and national security goals.”

*Reference document:*

*“The Kyoto Protocol”, Wikipedia entry.*

*Reference quote:*

*1997-2001.state.gov/global/global\_issues/climate/fs-us\_sign\_kyoto\_981112.html*

# 1998

## SHELL

Shell researchers wrote an internal memo about future scenarios that could harm their business. It suggested that a major storm on the East Coast in 2010 could turn public opinion against Shell and other oil and gas conglomerates, including a class action against them, while pushing governments toward strict environmental regulations and investments in renewable energy.

The prophetic memo by Shell's researchers mentioned that "following the storms, a coalition of environmental non-governmental organizations brings a class action suit against the U.S. 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" the Shell researchers wrote and that "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." They determined that "only a crisis can lead to a large scale change in this world."

*Reference document:*

*"Group Scenarios" by Shell researchers. 1998.*

*Reference quote:*

*scientificamerican.com/article/shell-grappled-with-climate-change-20-years-ago-documents-show/*

# 1998

April 3  
API

The American Petroleum Institute (API) drafted an internal strategy titled “Global Climate Science Communications Plan”, a roadmap memo to develop a multi-million dollar communications and outreach plan to ensure that “climate change becomes a non-issue.” The plan included obstruction, disinformation, and spreading doubts in political debates. The API’s Global Climate Science Communications Team consisted of representatives from the fossil fuel industry, trade associations, and public relations firms. At the time, the team’s attention was focused on derailing the Kyoto Protocol signed in 1997 and influencing the White House to make sure it would not ratify it in the future.

The Global Science Communications Action Plan stated that “victory will be achieved when [...] uncertainties in climate science become part of the conventional wisdom.” The roadmap identified an array of fossil fuel industry trade associations and front groups, fossil fuel companies, and free-market think tanks to underwrite and execute the plan, including: the American Petroleum Institute and its members, Business Round Table and its members, Edison Electric Institute and its members, Independent Petroleum Association of America and its members, National Mining Association and its members, American Legislative Exchange Council, Committee for a Constructive Tomorrow, Competitive Enterprise Institute, Frontiers of Freedom, and the Marshall Institute.”

*Reference document:*

*“Global Science Communications Action Plan” draft by the American Petroleum Institute (API). April 3, 1998.*

*Reference quote:*

*[ucusa.org/resources/climate-deception-dossiers](https://ucusa.org/resources/climate-deception-dossiers)*

# 1998

## WFA

The Western Fuels Association (WFA) founded the Greening Earth Society in 1997 as a front group to spread misinformation about how increased CO<sub>2</sub> is making the earth greener. On November 13, 1998, the Greening earth Society released a 30-minute video titled “The Greening of the Planet Earth Continues” at the annual meeting of Basin Electric. The WFA was a not-for-profit fuel supply cooperative providing coal and transportation to utilities in the Great Plains, Rocky Mountains, Southwest, and beyond. A 1998 report by the Clearinghouse on Environmental Advocacy and Research found that the Greening Earth Society and Western Fuels are essentially the same organization.

The misleading campaign stated “expert scientists assert that CO<sub>2</sub> is not a pollutant, but a nutrient to life on earth” and increasing CO<sub>2</sub> means “faster plant growth, greater agricultural yields and improved water-use efficiency in plants. Evidence shows a picture of the ongoing industrial evolution of humankind as the greening of planet earth continues.” The video, still promoted by the Center for the Study of Carbon Dioxide and Global Change “further explores issues addressed in our first video, The Greening of Planet Earth, which has been distributed to more than 30,000 people worldwide.”

*Reference document:*

*“The Greening of the Planet Earth Continues” video commercial. November 13, 1998.*



# 1999

## KOCH

Donors Trust and Donors Capital Fund are established as so-called ‘dark money’ groups that do not reveal their funders and are known to have supported contrarian research. According to one in-depth study, Donors Trust received millions of dollars from Koch foundations and distributed dozens of millions to groups – including the Heartland Institute, Americans for Prosperity, and the Committee for a Constructive Tomorrow – that denied the science and impacts of human caused climate change and the need to cut global warming emissions.

*Reference document:*

*“The Climate Deception Dossiers”. Published on June 29, 2015.*

# 2000

June 1

## ALEC

The American Legislative Exchange Council (ALEC), established as a platform for industry groups to influence policymakers behind closed doors, launched the “Environmental Literacy Improvement Act” to legislate the teaching of climate science denial into school curricula. ALEC’s donors included General Motors, BP America, Chevron, ExxonMobil, Shell, and electric utilities Duke Energy, Entergy, and Progress Energy.

Three states pushed the ALEC bill “Environmental Literacy Improvement Act” to require teaching climate change denial in schools. As a result, Texas and Louisiana introduced education standards that require educators to teach climate change denial as a valid scientific position. A school board in Los Alamitos, California, passed a measure, identifying climate science as a controversial topic that required special instructional oversight.

*Reference document:*

*“Environmental Literacy Improvement Act” by ALEC. June 1, 2000.*

*Reference quote:*

*[desmog.com/2012/01/26/alec-model-bill-behind-push-require-climate-denial-instruction-schools/](http://desmog.com/2012/01/26/alec-model-bill-behind-push-require-climate-denial-instruction-schools/)*

# 2000

March 23

## NEW YORK TIMES

ExxonMobil published an advertisement in the New York Times and the Wall Street Journal titled “Unsettled Science.” The advertisement referenced a scientific paper, published in Science, claiming that the paper disputed that global warming was happening. However, after the advertisement appeared, the author of the referenced scientific paper, Dr. Lloyd Keigwin, wrote to ExxonMobil charging that the company had inappropriately and selectively used his data and exploited his research for political purposes.

A few months later, the senior scientist at Woods Hole Oceanographic Institution, Lloyd Keigwin, sent a letter to Exxon’s Peter Altman, summarizing their email and phone conversations regarding Exxon’s misleading use of Keigwin’s study results. The letter accusing Exxon stated that “The sad thing is that a company with the resources of ExxonMobil is exploiting the data for political purposes when they could actually get much better press by supporting research into the role of the ocean in climate change.”

*Reference document:*

*“Unsettled science”. The New York Times. March 23, 2000.*

*Reference quote:*

*igwin, Senior Scientist at The Woods Hole Oceanographic Institution to Peter Altman, National Campaign Coordinator for ExxonMobil. December 11, 2000.*

# 2001

## March

# WHITE HOUSE

The George W. Bush (Jr.) Administration announced that it would not implement the Kyoto Protocol, the international treaty signed in 1997 in Kyoto that would have required nations to reduce their greenhouse gas emissions. Bush claimed that ratifying the treaty would create economic setbacks in the U.S. and did not put enough pressure to limit emissions from developing nations. George W. Bush (Jr.), promised to ratify the Kyoto Protocol during his presidential campaign.

A New York Times article titled “Bush, in Reversal, Won’t Seek Cut In Emissions of Carbon Dioxide” on March 14, 2001, mentioned “under strong pressure from conservative Republicans and industry groups, President Bush reversed a campaign pledge today and said his administration would not seek to regulate power plants’ emissions of carbon dioxide, a gas that many scientists say is a key contributor to global warming.”

*Reference document:*

*“Climate change policy of the George W. Bush (Jr.) administration”, Wikipedia entry.*

*Reference quote:*

*[nytimes.com/2001/03/14/us/bush-in-reversal-won-t-see-cut-in-emissions-of-carbon-dioxide.html](http://nytimes.com/2001/03/14/us/bush-in-reversal-won-t-see-cut-in-emissions-of-carbon-dioxide.html)*

# 2001

June 20

## GCC

During State Department Undersecretary Paula Dobriansky's meeting with the Global Climate Coalition (GCC) at the American Petroleum Institute (API)'s headquarters, talking points indicated that "POTUS rejected Kyoto, in part, based on input from you" suggesting the influence of the GCC on the U.S. President's decision. The Kyoto Protocol, an international agreement committing participating countries to binding emissions reductions, was initially supported by both George H.W. Bush (Sr.) and George W. Bush (Jr.). It was adopted by the Parties to the United Nations Framework Convention on Climate Change in December 1997.

*Reference document:*

*"Your Meeting with Members of the Global Climate Coalition", U.S. Department of State Memo and Talking Points.*

# 2002

## ALEC

By adapting fundamental principles, the American Legislative Exchange Council (ALEC), as a powerful organization of conservative state legislators and private sector representatives, aggressively opposed climate change regulations for a decade. The ALEC Energy Principles were initially adopted by the Natural Resources Task Force in 2002 and later amended at the States and Nation Policy Summit on May 16, 2008. According to ALEC.org, these principles underwent further amendment in April 2011.

ALEC Energy Principles from 2002 stated that “Global Climate Change is Inevitable. Climate change is a historical phenomenon and the debate will continue on the significance of natural and anthropogenic contributions. [...] ALEC supports affordable fuels that power growth. Mandates to transform the energy sector and use renewable energy sources place the government in the unfair position of choosing winners and losers, keeping alive industries that are dependent on special interest lobbying. [...] North America has extremely large reserves of fossil fuels. [...] Access to these resources should be expanded to provide America with low-cost and reliable energy [...] barriers limiting the use of and access to public lands must be removed.”

*Reference document:*

*“ALEC Energy Principles”. 2002.*

*Reference quote:*

*[alecexposed.org/wiki/ALEC\\_Energy\\_Principles\\_Exposed](http://alecexposed.org/wiki/ALEC_Energy_Principles_Exposed)*

# 2002

September 26

## EXXON

Michael MacCracken, the former director of the National Assessment Coordination Office of the U.S. Global Change Research Program, wrote to Exxon CEO Lee Raymond in response to ExxonMobil's criticism of a U.S. climate change assessment: "In my earlier experience, arguing for study of adaptation had been a position of industry, but now when this was attempted, ExxonMobil argued this was premature. Roughly, this is equivalent to turning your back on the future and putting your head in the sand – with this position, it is no wonder ExxonMobil is the target of environmental and shareholder critics."

The letter continued: "Certainly, there are uncertainties, but decisions are made under uncertainty all the time – that is what executives are well paid to do. In this case, ExxonMobil is on the wrong side of the international scientific community, the wrong side of the findings of all the world's leading academies of science, and the wrong side of virtually all of the world's countries as expressed, without dissent, in the IPCC reports [...] to call ExxonMobil's position out of the mainstream is thus a gross understatement. There can be all kinds of perspectives about what one might or might not do to start to limit the extent of the change, but to be in opposition to the key scientific findings is rather appalling for such an established and scientific organization."

*Reference document:*

*Letter from Michael MacCracken, Retiring Senior Scientist from the Office of the U.S. Global Change Research Program, to Exxon CEO Lee Raymond: "Re: With Regard to the ExxonMobil Facsimile on February 6, 2001 from Dr. Ag Randol to Mr. John Howard of the Council on Environmental Quality". 2002.*

# 2002

October 21

## WHITE HOUSE

Philip Cooney, Chief of Staff for the White House Council of Environmental Quality and a former lawyer and lobbyist for the American Petroleum Institute (API) with no scientific credentials, edited a “Draft Strategic Plan for the U.S. Climate Change Science Program” to introduce uncertainty about global warming and its impacts. In 2005, Cooney had to resign after being accused of doctoring scientific reports and shortly after he was hired by Exxon.

*Reference document:*

*Markups by Philip Cooney, Chief of Staff for the White House Council on Environmental Quality, on a Draft Strategic Plan for the Climate Change Science Program.*



# 2002

October

## API

The American Petroleum Institute (API) carried out its plan to distribute curriculum materials for schools that question the established science through the National Science Teachers Association by maintaining the website “Classroom Energy!”, which offers lesson plans and materials for teachers of kindergarten through high school.

*Reference document:*

*“The Climate Deception Dossiers”. Published Jun 29, 2015.*

# 2004

## BP

British Petroleum (BP) hired the public relations professionals Ogilvy & Mather to promote the term “carbon footprint”. The company unveiled its “carbon footprint calculator” in 2004, with which everyone could assess how their daily life contributes to CO<sub>2</sub> emissions, thereby placing responsibility on individuals rather than companies and governments. Subsequently, in 2005, Ogilvy launched a large advertising campaign further popularizing the concept of a carbon footprint for individuals.

From 2004 to 2006, a \$100m-plus a year BP marketing campaign “introduced the idea of a ‘carbon footprint’ before it was a common buzzword” according to the PR agent in charge of the campaign. The targets of this campaign were the “routine human activities” and “lifestyle choices” of “individuals” and the “average American household”. In 2019, BP ran a new “Know your carbon footprint” campaign on social media. The campaign instructed people to calculate their personal footprints and provided ways for people to “go on a low-carbon diet.”

*Reference document:*

*“Merchants of Doubt” book by Naomi Oreskes, Erik M. Conway, 2010.*

*Reference quote:*

*theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing*

# 2006

## TIME

The cover of Time magazine featured a photograph of a polar bear perched on floating ice, gazing uncertainty at the surrounding sea, marking 2006 as a watershed moment in the public understanding of climate change. Just before this cover was released, the Environmental Defense Fund (EDF), a mainstream U.S. organization, launched a wide-reaching campaign. Later that spring, Al Gore released the movie “An Inconvenient Truth”. Throughout the film, Al Gore framed global warming in terms of intergenerational ethics.

Environmental Defense Fund (EDF) released a TV spot in which its President announced: “Global warming has reached the point where it threatens the world we leave our children and grandchildren. This campaign is a wake-up call about the urgency of the problem.” Partnering with the Ad Council, the nation’s preeminent public service advertising organization, EDF sought a powerful visual symbol to make spectators feel emotionally engaged with the crisis. “We need to jolt people a bit,” one of the ad’s directors explained. “To think that a child today will have to bear the consequences of our apathy in years to come should be shameful and scary. If this doesn’t hit everyone where it hurts, nothing will.”

*Reference document:*

*“Global Warming: Be Worried. Be Very Worried“, Time magazine cover. April 3, 2006.*

*Reference quote:*

*[mediapost.com/publications/article/47163/advertising-ecosystem.html](http://mediapost.com/publications/article/47163/advertising-ecosystem.html)*

# 2007

## CHEVRON

Chevron launched its own campaign called “Will You Join Us?” featuring television, print, outdoor, and online advertisements. The company framed itself as an environmental leader, global warming as the fault of consumers, and the solution as small changes in consumer behavior rather than a replacement of fossil fuels.

The campaign’s website deflected attention from the company’s role in causing climate change, stating: “Energy conservation and efficiency are seen by many as the most immediate and cost-effective ways for energy users, including the private sector and individual consumers, to reduce their carbon emissions impacts. In the advertisements, portraits of everyday Americans were emblazoned with messages including: “I will finally get a programmable thermostat”, “I will use less energy”, “I will leave the car at home more”, and “I will replace 3 light bulbs with CFLs.”

*Reference document:*

*“Big carbon’s strategic response to global warming, 1950-2020” by Benjamin Andrew Franta. 2022.*

# 2009

August 12

## API

For obstructing regulations, the American Petroleum Institute's CEO, Jack Gerard, emailed API's membership promising "up front resources" and encouraging turnout for "Energy Citizen" rallies in about 20 states. Gerard said they were "collaborating closely with the allied oil and natural gas associations" in order to "aim a loud message at those states' U.S. Senators to avoid the mistakes embodied in the House climate bill."

*Reference document:*

*Email from the American Petroleum Institute's CEO Jack Gerard to API's Membership regarding a series of "Energy Citizen" rallies in 20 States during the end of the Congressional Recess.*

# 2009

## WSPA

The Western States Petroleum Association (WSPA), a top lobbying and trade association for the oil industry, described in a presentation the “campaigns and coalitions it has activated that have contributed to WSPA’s advocacy goals and continue to respond to aggressive anti-oil initiatives in the West” including investment “in several coalitions that are best suited to drive consumer and grassroots messages to regulators and policymakers.” The Sacramento-based WSPA counted among its members BP, Chevron, ExxonMobil, Shell, Occidental, and other major fossil fuel companies. Between 2009 and 2014, WSPA spent more than \$26.9 million directly lobbying in California.

WSPA planned to “activate” a “significant number of campaigns and coalitions.” As a presentation explained, WSPA “invested in several coalitions that are best suited to drive consumer and grassroots messages to regulators and policymakers.” Among these fake coalitions were groups such as Fed Up at the Pump, California Drivers Alliance, Californians Against Higher Taxes, and Oregonians for Sound Fuel Policy. Members of Congress received forged letters opposing the bill on behalf of fake organizations including National Association of the Advancement of Colored People, American Association of University Women, American Legion, and Jefferson Area Board on Aging. The congressional investigation revealed that the fraud was perpetrated by Bonner and Associates, a lobbying firm subcontracted by a front group called the American Coalition for Clean Coal Electricity.

*Reference document:*

*“WSPA Priority Issues”. Presentation by Western States Petroleum Association President Catherine Reheis-Boyd.*

*Reference quote:*

*[ucusa.org/resources/climate-deception-dossiers](http://ucusa.org/resources/climate-deception-dossiers)*

# 2011

## API

The American Petroleum Institute (API) protested the U.S. Environmental Protection Agency (EPA)'s decision to regulate carbon pollution under the Clean Air Act. It joined a coalition of industry groups to file a lawsuit challenging the EPA's authority to regulate global warming emissions. The API's lawsuit challenged the EPA on the grounds of the same doubts about climate science.

The trade group American Petroleum Institute (API) had worked for years to manufacture misinformation, stating that "EPA professes to be 90–99% certain that anthropogenic emissions are mostly responsible for unusually high current planetary temperatures, but the record does not remotely support this level of certainty."

*Reference document:*

*"The Climate Deception Dossiers". Published on June 29, 2015.*

# 2012

## ALEC

The American Legislative Exchange Council (ALEC) adopted legislation called the “Electricity Freedom Act” from a proposal sponsored by the climate change denial group the Heartland Institute. The legislation repealed targets for renewable energy production in place in 29 states. Between 2013 and 2015, some 65 ALEC-sponsored bills introduced in state legislatures were designed to roll back or repeal state standards requiring utilities to increase their use of renewable energy. ALEC publicly took credit for 13 states adopting resolutions “in opposition to the EPA’s plans to regulate greenhouse gas emissions.”

The “Electricity Freedom Act” stated that: “whereas, many renewable sources of power currently cost more than traditional electricity generation technologies, and are projected to do so for the foreseeable future; [...] Whereas, the costs of renewable energy will be borne by consumers regardless of income or circumstances.”

*Reference document:*

*“Electricity Freedom Act”, American Legislative Exchange Council, 2012.*

*Reference quote:*

*[progressive.org/magazine/alec-fronts-fossil-fuels/](http://progressive.org/magazine/alec-fronts-fossil-fuels/)*



# 2013

November 22

## ACCOUNTABILITY INSTITUTE

Rick Heede, co-founder and director of the Climate Accountability Institute, authors a peer-reviewed study revealing that 90 producers of oil, natural gas, coal, and cement – the “Carbon Majors” – are responsible for 63 percent of cumulative industrial CO<sub>2</sub> and methane emissions worldwide between 1751 and 2010. The finding also revealed that just 28 companies are responsible for 25 percent of all emissions since 1965. In the following years, the institute continued to release new data, and in 2024, it estimated that 57 producers were responsible for 80% of all fossil fuel and cement CO<sub>2</sub> emissions since 2016.

*Reference document:*

*“Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854-2010” publication by Rick Heede published in Climatic Change.*