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Big Oil braced for global warming while it fought regulations

By Amy Lieberman and Susanne Rust
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few weeks before seminal climate change talks in Kyoto back in 1997, Mobil Oil took out a bluntly worded advertisement in the New York Times and Washington Post.

“Let’s face it: The science of climate change is too uncertain to mandate a plan of action that could plunge economies into turmoil,” the ad said. “Scientists cannot predict with certainty if temperatures will increase, by how much and where changes will occur.”

One year earlier, though, engineers at Mobil Oil were concerned enough about climate change to design and build a collection of exploration and production facilities along the Nova Scotia coast that made structural allowances for rising temperatures and sea levels.

“An estimated rise in water level, due to global warming, of 0.5 meters may be assumed” for the 25-year life of the Sable gas field project, Mobil engineers wrote in their design specifications. The project, owned jointly by Mobil, Shell and Imperial Oil (a Canadian subsidiary of Exxon), went online in 1999; it is expected to close in 2017.

The United States has never ratified the 1997 Kyoto Protocol to reduce greenhouse emissions.

A joint investigation by the Columbia University Graduate School of Journalism’s Energy and Environmental Reporting Project and the Los Angeles Times earlier detailed how one company, Exxon, made a strategic decision in the late 1980s to publicly emphasize doubt and uncertainty regarding climate change science even as its internal research embraced the growing scientific consensus.

An examination of oil industry records and interviews with current and former executives shows that Exxon’s two-pronged strategy was widespread within the industry during the 1990s and early 2000s.

As many of the world’s major oil companies — including Exxon, Mobil and Shell — joined a multimillion-dollar industry effort to stave off new regulations to address climate change, they were quietly safeguarding billion-dollar infrastructure projects from rising sea levels, warming temperatures and increasing storm severity.

From the North Sea to the Canadian Arctic, the companies were raising the decks of offshore platforms, protecting pipelines from increasing coastal erosion, and designing helipads, pipelines and roads in a warming and buckling Arctic.

The industry contends that the difference between its public relations effort and its internal decision-making was not a contradiction, but a strategy to protect its business from misguided

federal regulations while taking into account the possibility that the climate change predictions were valid.

“During planning and construction of major engineering and infrastructure projects, it is standard practice to take into account many types of risks both short-term and long-term, likely and unlikely,” said Alan Jeffers, a spokesman for Exxon Mobil, which merged in 1999. “These risks would naturally include a range of environmental conditions, some of which could be associated with climate change.”

By the late 1980s, calls by scientists and environmentalists to limit fossil fuel emissions were gaining traction. A growing scientific consensus was emerging, suggesting a link between climate change and carbon dioxide emissions, and a concern that those changes could cause global upheaval — from warming temperatures to rising sea levels and melting glaciers.

Governments across the globe took heed.

In 1988, Democratic Sen. Timothy Wirth of Colorado called a congressional hearing on the topic, and James Hansen, a NASA scientist, asserted “with 99% confidence” that global warming was occurring. That same year, the United Nations formed the Intergovernmental Panel on Climate Change to examine its future impact.

Facing a growing environmental and political movement, a collection of energy companies, primarily from the coal sector, created the Global Climate Coalition to fight impending climate change regulations.

The group approached the American Petroleum Institute for funding and support in the early 1990s.

William O’Keefe, executive vice president of the Petroleum Institute at the time, delivered. The major oil companies, he recalled, decided “something has to be done.”

By 1993, he was sitting on the board, and within a few years, he was chairman. He brought with him support from the trade group, as well as individual trade group members, including Exxon, Mobil, Shell and others.

For the next 10 years, the coalition, whose annual revenue peaked at about $1.5 million before Kyoto, spent heavily on lobbying and public relations campaigns. As part of the effort, it distributed a video to hundreds of journalists, the White House and several Middle Eastern oil-producing countries suggesting that higher levels of carbon dioxide in the atmosphere were beneficial for crop production, and could be the solution to world hunger.

The coalition’s campaign emphasized the uncertainty surrounding climate change science, and warned of dire economic consequences for consumers should regulations on the industry be enacted.

Two recent papers published in the journal Nature Climate Change and in the Proceedings of the National Academy of Sciences suggest that the coalition effort helped polarize public discourse on climate change.

“The ramifications of this multiyear effort by these funders are immensely important,” said Justin Farrell, a sociologist at Yale University and author of the studies, which looked at how the industry’s messaging affected the public debate. Their influence explains, he added, why the issue went from being bipartisan to polarizing.

O’Keefe said no one in the coalition denied the existence of global warming, but there was uncertainty about how well the models could project its future impact.

What coalition members felt certain about, he said, was that any government-mandated emission reductions would have “a clear negative impact,” including unemployment, higher energy prices and a drop in the U.S. standard of living.

When it came to their own investments, though, coalition members relied on scientific projections — from rising sea levels to thawing permafrost — to design and protect multibillion-dollar investments in pipelines, gas developments and offshore oil rigs.

O’Keefe, who is now chief executive of the George C. Marshall Institute, a conservative think tank that focuses on science and policy issues, contends that there was nothing inconsistent in the industry’s actions. “Companies always take into account a range of possible outcomes” before making billion-dollar investments, he said, and they didn’t “dismiss the potential of increased warming.”

In 1989, before Shell Oil joined the Global Climate Coalition, the company announced it was redesigning a $3-billion North Sea natural gas platform that it had been developing for years.

The reason it gave: Sea levels were going to rise as a result of global warming.

The original design called for the platform to sit 30 meters above the ocean’s surface, but the company decided to raise it by a meter or two.

The company’s then-chief offshore engineer, Chris Graham, said rising sea levels and increasing wave heights were “really showing” during the late 1980s and early 1990s, and the company was taking them seriously. A rash of storms and monster waves that had battered the North Atlantic and Gulf of Mexico during those years was particularly concerning, and engineers wondered whether climate change might be behind it.

“The tipoff to there being changes came from hurricanes,” said Bob Bea, another Shell offshore engineer at the time who also worked for the global engineering firm Bechtel. “Even back in those days ... hurricane intensities were changing.”

In 1994, representatives from the oil industry, insurance companies and several North American and European governments formed a quasi-governmental organization called Waves and Storms

of the North Atlantic Group to determine whether climate change was behind the worsening weather.

The group concluded that if carbon dioxide levels continued to climb, there'd be "moderate increases of surges along the North Sea coast and of wave heights in the North Atlantic."

That same year, industry engineers submitted a document to European authorities on the construction of the Europipe, a natural gas pipeline leading from a North Sea offshore platform to the German coastline, via the ecologically fragile Wadden Sea.

In it, the engineers noted that sea levels had risen over the last century, and suggested there could be a "considerable increase of the frequency of storms as a result of a climate change." They concluded that although climate change was a "most uncertain parameter," their pipeline designs should include protections against its impact.

The Europipe was jointly operated and owned by a group of companies, including Shell, Exxon, Conoco, Total and the biggest investor, Norway's Statoil. They included climate change protections in their design specifications in part to convince German authorities to give them the go-ahead, according to Romke Bijker, a Dutch engineer who co-wrote the design specifications.

"We had to think at the time, what are the most important aspects we have to include if we look 50 years ahead," he said.

By the mid-1990s, though, Shell had joined the Global Climate Coalition, and with its partners was publicly questioning the science behind climate change and casting doubt on its projected impact.

"There has been a great deal of speculation about a potential sea level rise," the coalition said in a 1995 mission statement obtained by Greenpeace. But, the statement continued, "most scientists question the predictions of a dangerous melting of Greenland or Antarctic ice caps."

In a section on the science of sea level projections, the document concluded that warmer air temperatures could actually "increase snowfall, decreasing the likelihood of sea level rise due to polar ice cap melting."

Curtis Smith, a spokesman for Shell, declined recently to comment on the company's actions two decades ago. However, he said Shell recognized the "importance of the climate challenge and the critical role energy has in determining quality of life for people across the world."

Shell left the Global Climate Coalition in 1998 after the Kyoto agreement had been effectively derailed.

During this period, Mobil Oil (now part of Exxon Mobil) considered climate change when designing its Sable gas development off Nova Scotia.

Big storms, monster waves and sea level rise were “all part of the discussion,” said Bassem Eid, author of the report. Eid’s firm, Maclaren Plansearch, was hired by Mobil to conduct the company’s environmental assessment for the Canadian government.

“I used the engineering standards of the day to incorporate potential impacts of Global Warming on sea-level rise,” Eid said in an email. “It was a hot topic in the early 1990s.”

Regulators and engineers at the time were beginning to incorporate such planning into other large infrastructure projects, including a bridge designed to span Northumberland Strait from New Brunswick to Prince Edward Island. Climate change was discussed as project plans were assembled, according to regulators and contractors who worked on the project.

In public, though, the coalition partners, including Exxon’s CEO, Lee Raymond, said that the impact of climate change was uncertain, and that even if the models did prove to be accurate, the effects from warming were not imminent.

“It is highly unlikely that the temperature in the middle of the next century will be affected whether policies are enacted now or 20 years from now,” Raymond told a 1997 gathering of energy executives at the World Petroleum Congress in Beijing.

By the early 2000s, the Canadian government explicitly required companies to consider climate change in their operations.

Exxon Mobil’s Canadian affiliate, Imperial, addressed the effect that climate warming could have on its plan to build pipelines, gas processing and separation facilities, airstrips, helipads and barge landings in the Northwest Territory’s Mackenzie Delta. Its conclusion: very little.

In a 28-page report examining the effects of climate change on the project, Imperial concluded that although “uncertainty exists” and “climate change could affect the northern environment,” those changes were unlikely to have any meaningful impact.

However, at a public hearing on the project, an Imperial engineer told an audience that “the project generally accepts that climate warming is occurring and that’s generally included in the design calculations.” At other hearings, company engineers noted that Imperial had incorporated climate change projections into its plans.

During this same period, Exxon Mobil provided money to organizations questioning that science, including more than $200,000 in 2004 to the Frontiers of Freedom Institute, which supported the work of Willie Soon, a well-known climate change skeptic. Between 1998 and 2005, Exxon Mobil’s foundation provided more than $15 million to similar organizations.

“There is nothing inconsistent about Exxon Mobil managing potential environmental risks while speaking publicly about the limits of scientific knowledge and advocating for effective public policy approaches,” said Exxon Mobil’s spokesman, Jeffers, referring to all of the company’s projects at the time, including those in Canada. “Any suggestion to the contrary would be inaccurate and a distortion of the company’s position.”

When Shell left the Global Climate Coalition in 1998, it was followed by Ford Motor Co., Daimler Chrysler, Texaco, Southern Co. and General Motors. The organization disbanded in 2002.

O'Keefe, the coalition's former chairman, said he had recommended it be shut down because members were "taking a lot of heat" for a job they had already accomplished — effectively quashing any regulation that would have limited fossil fuel use.

Today, all of the major oil companies publicly acknowledge the risks of climate change.

In the mid-2000s, the American Petroleum Industry began funding a project by the National Center for Atmospheric Research to better understand the relationship between climate change and hurricanes in the Gulf of Mexico.

In 2007, Exxon Mobil disclosed to shareholders — for the first time — the potential risks that climate change posed to its bottom line.

"What is most unfortunate," said Farrell, the Yale sociologist, "is that polarization around climate change ... was manufactured by those whose financial and political interests were most threatened." Even today, he added, that polarization has crippled any hopes for bipartisan policy solutions.

Meanwhile, the sea level along the Nova Scotia coast, as Mobil Oil's engineers originally forecast, is indeed rising — and at rates higher than the global average.