



***Exxon Mobil and British Petroleum: A tale of two companies  
or just business as usual?***

NRE 501: Climate Change—A Move to Action  
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## ***Executive Summary***

Heavy global fossil fuel reliance combined with high oil prices and a dwindling supply is creating complex political, environmental and social issues. Growing awareness of climate change impacts is initiating climate planning and action for many governments and organizations. The oil industry has a unique position in addressing climate change, as oil when combusted in the use phase by consumers, emits significant GHGs. Responses to this global issue vary between many of the large, multi-national oil companies. This analysis will focus on the climate responses of two of these organizations, British Petroleum (BP), and Exxon Mobil (Exxon) that in comparison to other oil companies have distinct and changing positions on climate change.

BP is considered the first oil company to publicly acknowledge climate change, and has a record for precautionary action that stretches back to 1997.<sup>1</sup> BP has utilized this position on climate change to re-brand the organization with a new slogan, 'Beyond Petroleum,' which is focusing on alternative fuels and other types of renewable energy development. Exxon recognizes that there is scientific evidence for a warming earth. Exxon also communicates that climate science is complex and uncertain but associated risks could prove to be significant for humans and ecosystems.<sup>2</sup> Precautionary action may make sense, but in developing and implementing strategies that reduce GHGs, the central importance of energy to the global economy needs to be a component.<sup>3</sup>

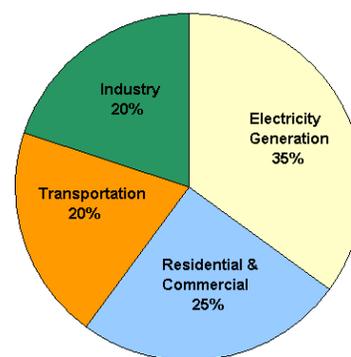
The following analysis will look at climate change impacts of the oil sector, the research focus areas of BP and Exxon, the rhetoric used by both companies in addressing climate change, stakeholder influences and will also provide recommendations on addressing climate change for the oil industry.

## ***Climate Change Impacts from the Oil Sector***

The term “climate change” refers to any significant changes in climate indicators, such as temperatures and weather patterns, taking place over decadal or longer time scales. Though the Earth has undergone many changes in its dominant climate, the warming that we are experiencing today appears to be unprecedented in both its magnitude and rate. Evidence strongly suggests that today’s warming is a result of increased greenhouse gases (GHGs) in the atmosphere. GHGs are gases that absorb radiation from earth’s surface and trap it within the atmosphere, causing the phenomenon known as the Greenhouse Effect.<sup>4</sup>

It is important to first gain an understanding of what sectors are contributing to fossil fuel emissions and how they are related to the oil industry. The oil industry clearly has contributed directly to the 20% of emissions that originated from the industry sector in 2002. As consumers and sometimes-suppliers of electricity, the industry also contributes directly and indirectly to electricity generation. As petroleum and gas suppliers, the industry is also indirectly responsible for emissions from the transportation and residential/commercial sectors.<sup>5</sup> The oil industry’s role in contributing to fossil fuel emissions in all four sectors also makes it an important leader in mitigating greenhouse gas (GHG) emissions.

**Carbon Emissions from Fossil Fuel Burning by Sector, 2002**



*Source: John Browne, "Beyond Kyoto," Foreign Affairs, 1 July 2004.*

**Figure 1**

## ***BP and Exxon-Current Climate Change Initiatives***

British Petroleum committed to reducing emissions 10% below 1990 levels by 2010 and reached this goal in 2001.<sup>6</sup> The company plans to keep emissions steady through 2012 with energy efficiency improvements. Approximately 25% of BP's emissions are subject to regulation by the European Union's Emissions Trading Scheme.<sup>7</sup> BP is a member of the US Climate Action Partnership which is a group of corporations that are encouraging GHG regulations in the United States. BP is also a member of the Pew Center on Global Climate Change's Business Environmental Leadership Council.

Exxon Mobil does not have a formal executive committee on climate change. The company endorses the American Petroleum Institutes voluntary target to improve energy efficiency by 10% in 2002-2012.<sup>8</sup> Exxon has 40 of its facilities in EU Emissions Trading Scheme.<sup>9</sup> Exxon is not involved with any voluntary GHG reporting programs.

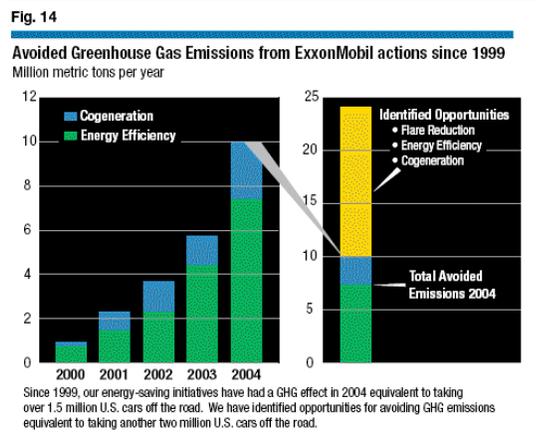


Figure 2

Both companies have been working to reduce their emissions in recent years, though BP made its initial statement on the matter in 1997. Both companies have taken different approaches to showing their emissions changes. Exxon shows total emissions *avoided* from their implemented actions such as

cogeneration. In the period from 2000-2004, they avoided approximately 23 million metric tons of GHG emissions.<sup>10</sup> BP shows their total emission amounts during 2002-2006.<sup>11</sup> They cut their emissions by approximately 18 million metric tons. Exxon

produces approximately 6.4 million barrels of oil equivalent per day, whereas BP produces approximately 4 million barrels, making them comparable industries.<sup>12,13</sup>

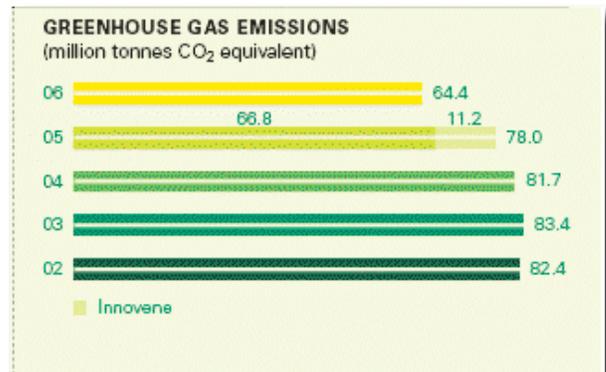


Figure 3

### ***BP's Technical Focus***

In order to meet its emission goals and become recognized as a “green” company, BP has initiated research and development projects in many different technological fields. BP has been working in solar since the early 1970s, and its subsidiary, BP Solar, has become a leader in the field with its acquisition of Solarex in 2000. Currently they have projects in Spain and India, constructing PV solar cell manufacturing plants. The modules built by these plants, once installed worldwide, will offset more than 14 million metric tons of carbon in their lifetime. BP is also currently exploring a new technology in collaboration with the California Institute of Technology. The technology involves the growth of silicon on nanorods and could potentially increase the efficiency of solar electricity use.<sup>14</sup>

BP has also invested a large amount in wind energy research and projects. They currently have wind farms in the Netherlands and India and have new projects underway in Texas and Colorado, each of which will be at least 10 times larger than their European counterparts.

In terms of hydrogen power, BP has joined with the major coal-producing company, Rio Tinto, to establish Hydrogen Power, a company, which will invest in hydrogen, fueled power projects around the world. The new plants make use of carbon

capture and storage (CCS) technologies to reduce emissions. To do this, the plant 'decarbonizes' a fuel source such as coal, oil or natural gas. The technique separates the hydrogen and captures the CO<sub>2</sub> from the fossil fuel. The clean hydrogen is then burned in a modified gas turbine to produce clean electricity while the carbon dioxide is captured and stored securely deep underground in depleting oil and gas oil fields.<sup>15</sup>

In early 2008, BP joined with ConocoPhillips to fund the Denali Pipeline, which will carry natural gas 3600 miles, from Alaska, through Alberta, Canada, into its Chicago destination. The two companies will invest \$600 million over the next three years on a design for a project that industry experts say could cost more than \$30 billion, potentially making it the largest private construction project ever in North America. They have hopes of getting natural gas flowing by 2018.<sup>16</sup>

BP's already-running gas-powered plants make use of combined cycle gas turbine (CCGT) technology, a process more efficient than the standard gas turbine because the leftover heat is changed into steam and used in another turbine to produce more electricity.<sup>17</sup>

Most recently, BP has taken criticism for its new plans to extract fuel from tar sands after its long-standing, self-imposed ban on that particular process. In what Greenpeace is calling the "biggest environmental crime in history," BP is already setting up expanded and modified refineries to allow for the refining process, which will be needed, in its new endeavor. Crude oil extraction from tar sands generates 4x as much CO<sub>2</sub> as conventional drilling and the consumption of gas in the tar-drilling industry is large enough to heat approximately 4 million American homes.<sup>18</sup>

While BP has been building alternative-energy-powered plants around the world, Exxon has put a much greater emphasis on research. They are leaders in research, even surpassing BP's research expenditures. They have partnered up with major car-manufacturing companies such as Toyota to develop advanced vehicle technologies, which will improve fuel economy, lower emissions, and conduct research on developing advanced fuels. They've also funded the Global Climate and Energy Project at Stanford University, which will research the potential of advanced combustion, hydrogen, CCS, solar and biomass fuels and technologies. Overall, Exxon seems to have a special interest in CCS technologies.<sup>19</sup>

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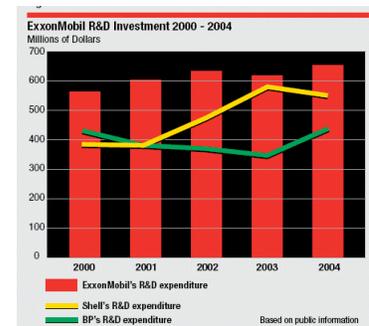


Figure 4

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Despite Exxon's emphasis on research, they have already implemented some changes in their operations and have prevented the emission of approximately 8 million tons of CO<sub>2</sub>. They also use cogeneration plants in over 30 locations around the world, which reduces global CO<sub>2</sub> emissions by over 10.5 million metric tons annually. Cogeneration is the simultaneous production of electricity and steam, typically using clean-burning natural gas, which allows them to reuse leftover waste heat.<sup>21</sup>

### ***BP and Exxon-History of Climate Specific Actions***

The oil industry first addressed climate change as an issue with the formation of a Global Climate Coalition. BP and Exxon were both members of the group that formed in the 1990's in response to reports from the Intergovernmental Panel on Climate Change (IPCC) reports.<sup>22</sup> BP left the coalition in 1997. The group became defunct in 2002, in response to the severity of climate change reported by the IPCC.<sup>23</sup> The Global Climate Coalition formed with the goal of opposing immediate action to reduce GHGs, but is significant, as it was the first industry action on climate change.

### ***Oil: A History of Public Distaste***

The oil industry's negative stance on climate change, emphasized by the Global Climate Coalition, is hardly the first time the industry has been threatened by the public disgust. In the early part of the 20<sup>th</sup> century, Standard Oil's substantial revenues and exclusive transportation transactions with railroads for their oil distribution created indignation amid the US government. Eventually, the oil company's monopolistic business endeavors, under the Sherman Antitrust Act, were ended,<sup>24</sup> but this proved to be just the beginning of the oil industry's troubles. The industry's environmental practices were the foremost topic of the latter part of the century. Headline news, like

the Exxon Valdez's oil spill in 1989 and the controversy Greenpeace brought on Royal Dutch Shell's decommissioning of the Brent Spar oil storage buoy in 1994, shed light on the oil industry's negligent environmental practices.<sup>25</sup>

### ***Exxon: Creating Uncertainty***

While, the industry used lobbying groups to persuade public officials by highlighting the unfavorable economic impact of climate change protocols, Exxon, specifically, took a much more proactive stance by using the media to influence the general public. On four consecutive Thursdays during the months of March and April of 2000, Exxon ran editorial advertisements, or advertorials, in *The New York Times* addressing climate change (Appendix A).<sup>26</sup>

The central theme of the advertorials is scientific uncertainty about climate change. The first advertorial questions the ability of scientists to predict the condition of the climate in the future, even though they haven't yet developed an accurate method for predicting the weather a few days from now. Although, Exxon's argument confuses the relationship between weather and climate, it succeeds in its message. By highlighting inaccurate weather forecasts, the ad appeals to a potential source of frustration for the average citizen. It may cause the readers to ask themselves the question, "If science can't predict the weather then how do they know the temperature in the future?" The company reinforces this sentiment by making use of, what some could identify as, a scare tactic toward the end of the advertorial by saying, "we know with certainty that climate change policies, unless properly formulated, will restrict life itself."<sup>27</sup> Exxon also attempted to defend their view in the ad by stating, "even if it (the Kyoto Protocol) were implemented" it would not accomplish what it is supposed to

because it “does not restrict the emissions of developing countries.” In addition to defending their view they also attempted to gain favor by showing their support for energy conservation given that they “support and are undertaking feasible and affordable ways to voluntarily use less energy.”<sup>28</sup>

The tactics used by Exxon to strategically persuade the public’s decision has been criticized by many groups including the Union of Concerned Scientists (UCS). In January 2007 the UCS put out a report titled *Smoke, Mirrors, & Hot Air: How Exxon Mobil Uses big Tobacco’s Tactics to Manufacture Uncertainty on Climate Change*. The report compares Exxon’s public relations campaign in opposition to climate change science to the methods used by the tobacco industry that attacked the science linking smoking and lung cancer. Among the several charges in the report, the UCS accuse Exxon of primarily manufacturing uncertainty by questioning sound scientific data and promoting scientific spokespersons to mislead the public about the facts behind global warming and as a result creating uncertainty among the public.<sup>29</sup>

In 1998, Exxon assisted in creating the Global Climate Science Team (GCST). The GCST was a group headed by the American Petroleum Institutes Public Relations Representative Joe Walker and included Exxon’s senior environmental lobbyist, Randy Randol. An Action Plan drafted by, and for, the GCST highlighted the objectives of the Team. Some of these goals intended to “develop a global climate science information kit for media including peer-reviewed papers that undercut the “conventional wisdom” on climate science.”<sup>30</sup> Other goals planned to “identify, recruit and train a team of five independent scientists to participate in media outreach” and to “produce, distribute via

syndicate and directly to newspapers nationwide a steady stream of op-ed columns and letters to the editor authored by scientists.”<sup>31</sup>

There is ample evidence to support the claims made by the UCS. For example, between 1998 and 2005 it has been reported that Exxon has given over \$15 million dollars in funding to organizations that have provided misinformation on global warming.<sup>32</sup> Among the recipients of the funding are the Competitive Enterprise Institute and the Heartland Institute, which Exxon gave \$2,005,000 and \$561,500 respectively during that period.<sup>33</sup> The CEI is well known for producing ads protesting the classification of CO<sup>2</sup> as a pollutant. Claiming that because CO<sup>2</sup> is a byproduct of normal human respiration process and it used by plants to make oxygen it couldn't possibly be classified as a pollutant. The CEI draws attention to this matter by making use of their slogan, “CO<sup>2</sup>. They call it pollution -- we call it life.”<sup>34</sup> As for the Heartland Institute, they held a conference on the subject of Global Warming on March 4, 2008 in New York. It was there that they reinforced their contrarian position “that "global warming"\* is not a global crisis.” Adding that “there is no convincing evidence that CO2 emissions from modern industrial activity has in the past, is now, or will in the future cause catastrophic climate change”.<sup>35</sup>

### ***BP: A Lesson in Greenwashing***

As we saw in the previous section Exxon chose to defend itself by, not only turning its back on fundamental environmental principles, but taking it to another level by waging war on the scientific community. On the other hand, as we will see in the upcoming section, BP chose to acknowledge the global impact of their product and

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\* Note that the Heartland Institute places quotations around the phrase global warming; this is likely done for the purpose of devaluing the phrase of any credibility and to simply pass it off as speculation.

vowed to reduce the negative effects they were creating through a commitment to renewable energy.

In the year 2000, around the same time Exxon was running ads discrediting climate change BP was attempting to make itself stick out from the competition by changing its name from British Petroleum to BP, and creating the slogan “Beyond Petroleum.” BP’s claims were that it was now an energy company and would be investing in alternative forms of energy. BP spent \$7 million on developing the new brand and spent another \$200 million operating it.<sup>36</sup>

The new BP insignia is described as “a vibrant sunburst of green, white and yellow” — green for “environmental responsibility” and yellow representing the sun.<sup>37</sup>

Incorporating pictures from the natural world is a common method used by firms to

reduce the public perceptions of a corporation’s involvement in anti-

environmental actions. However, as Livesey and Kearins point out in

*Transparent and Caring Corporations?*, a similar effort by Royal Dutch

Shell requires the observer to make a “considerable logical leap to move

from a nature picture, particularly one showing nature devoid of human

presence, to respect, care, sensitivity, and the ability of an oil company to

reconcile principles and practices” and may, in fact, be “vulnerable to ironic

interpretation or backlash.”<sup>38</sup>

In addition to persuading public perception, the representation of the sun may also have been used to highlight BP’s plans to increase business activity in solar energy – an aspect of the energy sector BP became well positioned to chase after they merged with Amoco in 1998. At the time of the merger Amoco held a 50% share in the solar



energy company Solarex. BP later purchased the remaining shares in the company and the operations were merged with BP Solar to create BP Solarex.<sup>39</sup>

Although, BP had been spending millions of dollars on alternative energy, like solar, it represented an extremely small portion of their business. Certainly not enough to organize the company's entire ad campaign around. In 2000, BP spent more on branding than it spent on its solar division in 1999.<sup>40</sup> Could the ad campaign have been a strategy to focus the public's attention on the alternative energy while BP engaged in their usual business practices?

John Stauber, founder and executive director of the Center for Media and Democracy in Madison, WI has this to say about the effectiveness of BP's ad campaign. "Have they convinced people through advertising and PR that they are a better company? I think so," "big ad budgets, full-page ads in *The New York Times* and branding campaigns do work. For every one piece in *The Wall Street Journal* or *PR Watch* on BP not living up to the standard--articles limited to a small audience--they're reaching tens of millions every day with worldwide advertising."<sup>41</sup>

### ***Rhetoric Commentary***

The dichotomy of the public relations Exxon and BP implemented to address global warming may appear to be contrary to one another; however they do have similarities in the ultimate goals of their ad campaigns. Whether the hierarchy at Exxon believed the skeptical facts and figures, or whether BP had genuine interests in "going green" that just resulted in business decisions that caused the campaign to collapse, are hard to say. One thing that seems certain is that the extraction of natural resources

from the earth to create wealth is vital to a capitalist economy and unfortunately corporations are persuading the public to adopt the ideas that benefit the economy.

Andrew Austin points out in his report titled *Advancing Accumulation and Managing its Discontents: The U.S. Antienvironmental Countermovement*, that to maintain the current conditions of the economy and political structures right-wing groups have spread anti-environmental literature to deceive policy makers.<sup>42</sup> This argument upholds the long held belief by oil and gas industry pundits who argue that a strong economy is needed before the environment can be protected.<sup>43</sup>

### ***Stakeholder Influences***

High oil prices combined with growing global awareness of climate change, creates a unique opportunity for consumers, governments, investors and non-government organizations to influence future climate action at BP, Exxon and other large, multi-national oil companies.

#### ***Consumers***

Last year, the 5 biggest oil companies made approximately \$123 billion in profits compared to the 5 largest pharmaceutical companies that made a little under \$50 billion.<sup>44</sup> Oil companies are seeing record profits, with Exxon bringing in an estimated 40.6 billion last year and BP an estimated 28.6 billion.<sup>45,46</sup> Consumers are paying record oil prices, and do not like to see these correspondingly high profits. Public opinion of oil companies is at a low point.<sup>47</sup>

Consumers are making the link between oil production and GHGs. A small Alaskan city, Kivalina, filed a lawsuit against several major oil companies, including BP and Exxon, because sea ice that traditionally protected the community is melting and

exposing the small coastal town to severe storms and flooding.<sup>48</sup> The people of Kivalina, hold oil companies and a coal company, as parties responsible for the damages they are facing from climate change. While this is a unique case, it does show that some stakeholders see an element of responsibility not only in the emissions associated with producing oil, but also in consumer use phase (fuel combustion) emissions.

Consumers are also becoming concerned about personal energy choices, and the associated impacts. According to an Accenture global survey in 2007, 89% of respondents were willing to switch energy providers that offered lower-carbon options, with 64% of those respondents willing to pay 11% or more for products with lower GHG impact.<sup>49</sup> This growing trend of environmentally conscious consumers, may be able to help shape the energy market in the future.

### *Government*

On April 1, 2008 executives from 5 of the United State's biggest oil companies appeared before Congress to discuss high oil prices, high profits and tax breaks. Exxon defended high profits by explaining the company needs to sustain huge investment requirements over the long term. Alluding to high oil prices, representatives from BP cited that access is needed to more domestic energy supplies including the Artic National Wildlife Refuge and the 85% of coastal waters that are off limits to drilling.<sup>50</sup> House committee members specifically asked Exxon why they were not investing in the renewables revolution, and cited that other oil companies including Shell and Chevron, have made better efforts in this area.<sup>51</sup> It was suggested by House committee members that oil companies invest 10% of annual profits in renewables.<sup>52</sup>

The oil industry receives approximately \$18 billion in tax breaks from the US government, and it was suggested that these tax breaks be revoked and funneled to renewable-energy producers. Oil companies are fighting this, arguing that over the next 25 years oil and gas will provide 85% of the world's energy needs.<sup>53</sup> While Republicans for the most part oppose getting rid of the tax breaks, Democrats support it. The House has passed this measure twice, but it has failed in the Senate.<sup>54</sup>

With an administration in transition, there is great uncertainty in what future climate policy may hold in the US. Current US measures comprise of state-level GHG reduction requirements, regional cap-and-trade programs, state emission standards for power plants and vehicles, mandatory GHG inventory policies and state renewable electricity standards.<sup>55</sup> In 2003, 43 senators voted the McCain-Lieberman GHG cap-and-trade bill on. 54 senators supported a non-binding resolution initiated by Senator Bingaman that called for a national, mandatory, market-based program for GHG emissions. Hearings on designing such a program commenced in 2006.<sup>56</sup>

In response to US federal inaction, many states have taken leadership positions in facilitating GHG emissions reductions. California in September of 2006 passed a landmark bill, AB 32 that mandates reduction of GHGs to 1990 levels by 2020, and reductions by 2050 to 80% below 1990 levels.<sup>57</sup> This legislation is the first enforceable statewide cap-and-trade system in the United States. Currently, 36 states have climate action plans and 17 states have emissions reductions targets. Governmental influence will be a key player in shaping recommendations and actions for the oil industry to address climate change.

## *Investors*

From an investment standpoint, oil companies can be a good choice. On average, oil and gas companies on average receive 8.3 cents on every dollar of sales compared to the Dow Jones average of 7.8 cents.<sup>58</sup> Climate change breeds concern with many investors. It poses financial and physical risk to the bottom lines of many organizations. Several investor collaboratives have evolved around this issue including the Investor Network on Climate Risk (ICNR).

CERES is a network of investors, environmental organizations and public interest groups with the goal of addressing sustainability and climate change challenges. CERES has a rating system that analyzes organizational preparedness for climate action. BP received a score of 90 and Exxon a 35, one of the lowest scores in the oil sector.<sup>59</sup> Many shareholders at Exxon are pressuring the company to invest more in renewables, and are concerned the company is not positioning itself to be a leader in a carbon constrained world.<sup>60</sup> At BP, while they make a point to calculate how their GHG reductions have created shareholder value, and put an estimated price of \$1.3 billion on this, investors want them to better capitalize on the short-term benefits of high oil prices.<sup>61</sup> An example of this is mining of Canadian tar sands, and the potential sale of BP's renewable energy assets, due to the fact that renewables are not as cost effective as oil.<sup>62</sup> Investors have an important role in helping to shape oil industries approach to addressing climate change that must be balanced with an understanding that alternative energy sources will likely be cost effective in the long run.

## *Non-Government Organizations*

NGO's have been involved in shaping corporate approaches to environmental issues. Some environmental organizations engage directly with oil companies. For example, Exxon Mobil participates in an opinion leaders dialogue with representatives from several NGO's and investment groups to discuss important issues like human rights and climate change.<sup>63</sup> Other environmental groups utilize more confrontational action like boycotts and protests. BP's plan to mine tar sands in Canada goes against a self-imposed company policy. As previously mentioned, Greenpeace is calling this action 'the biggest environmental crime in history' and is organizing strong opposition to the plan.<sup>64</sup> The relationship between NGO is an important and changing one. Organizational collaboration allows for innovation and new perspectives, something that is particularly useful when addressing climate change.

Stakeholder influence will be a driving force in how the oil industry responds to climate change in the future. Our recommendations that follow, are built off of the current stakeholder influences described above. It is important to consider integrating stakeholder perspective into these industry recommendations, as it provides another element of insight into the specifics of the oil industries role in climate change.

### ***Recommendations to the Oil Industry***

#### *Global Climate Coalition—Round 2*

The Global Climate Coalition originally started as an industry consortium against mandatory climate action in the 1990's.<sup>65</sup> However, this action of oil companies coming together for a common goal, is something that should be repeated. The oil industry should consider creating a new Global Climate Coalition focused on collaboration and

technical knowledge sharing. As a component of this program, representatives from NGOs, academic research centers and government should be invited to participate in this consortium. There should be annual meetings with all representatives of the coalition.

Members of the coalition should also join smaller task-based committees that will meet more often. An example of such a committee could be one that works on developing a centralized framework for implementing technical knowledge sharing across boundaries of member companies to develop new ways of reducing GHGs in the oil production process. These committees will be made up of representatives from a diverse group of coalition members to integrate different perspectives and promote innovation. The consortium will work to drive change within the industry.

#### *New Product Development*

Oil companies like BP and Exxon may want to consider climate conscious investors and consumers as a trend that is likely to continue. In order to cater to this new market, it may be interesting to sell oil at a small price premium, where some of the energy for oil production comes from renewables like wind and solar power. The concept of this new product offering would be marketing oil with a lower carbon footprint. While, the emissions from combustion would still affect the climate, the production phase would cause less environmental damage. This would be considered a transition product, while further research and development is being conducted on alternative fuels and vehicle fuel efficiency improvements.

#### *Emissions Labeling Program*

Another initiative could be a labeling system for consumers in understanding the climate impact of transport related decisions. Similar to a food labeling system, instead of looking at a package that says the number of calories, it will say the emissions associated with the production of a gallon of gasoline. It will also give information on use phase emissions that result from fossil fuel combustion. It will be important to put these numbers in terms that consumers will be able to understand. Providing this information in 'tons of carbon' may not mean a lot to consumers. It may be more useful to also give the information in equivalent terms, like burning 100 gallons of this gasoline is equivalent to deforesting a certain amount of land. This labeling system could also provide information on simple ways of reducing carbon footprints and improving fuel efficiency in driving habits.

This system would need to be implemented at the governmental level by the Environmental Protection Agency or the Department of Transportation and it also must be endorsed by the oil industry. These labels could be visibly placed at gas pumping stations, where consumers could read the labels while filling up their gas tanks. This labeling system will work to build awareness through educating consumers, with the goal of reducing the use phase impacts of oil on the climate.

#### *BP Recommendations*

For want of short-term profits, BP has been pulling away from its investments in alternative energies to pursue in less environmentally friendly endeavors. Their website has a large section dedicated to its "green" operations around the world, but has not openly addressed their new stance on tar sands. Their lack of forthcoming on this issue has led to some accusations of "green washing." Our recommendations are to not pull

back from its climate-friendly alternative energy policies and to keep funding research and operations using alternative energies. Furthermore, if they are going to switch their focus over to less environmental operations, such as tar sands, they should openly and thoroughly address this, not only on their website but through other media use as well, so that the public is aware of their operations.

### *Exxon Recommendations*

Exxon has a reputation for being an industry leader in technological innovation, safety and profits. Exxon recognizes climate change as a global problem and has historically taken a defensive approach to the issue. As an industry leader, Exxon should consider stepping up to the challenge and engaging climate mitigation projects, making a larger commitment to renewable energy research, and developing a non-defensive approach to climate change.

### **Conclusion**

Climate change is a serious global issue. BP and Exxon are two of the largest providers of oil, a finite resource, that when combusted in the use phase, releases significant amounts of GHG emissions. While the production footprint of oil may not be nearly as large as the use phase footprint, oil companies still have a responsibility in how the oil that they distribute is used. It is essential for oil companies like BP and Exxon to recognize climate change as an issue, and develop strong and clear approaches to further their development of communicating climate related information and implement innovative strategies akin to the recommendations we detailed.



**Appendix A:** Exxon Advertisement, *New York Times*; Mar 16, 2000; *The New York Times*, pg. A23

# Do No Harm

Just as changeable as your local weather forecast, views on the climate change debate range from seeing the issue as serious or trivial, and from seeing the possible future impacts as harmful or beneficial.

Some in the debate believe they can predict changes in climate decades from now. Advocating "precaution," and despite scientific uncertainty, they believe actions should be taken immediately to reduce carbon dioxide emissions by mandating severe restrictions on energy use.

Though we wholly support the efficient use of fuel, a prudent approach to the climate issue must recognize that there is not enough information to justify harming economies and forcing the world's population to endure unwarranted lifestyle changes by dramatically reducing the use of energy now.

Enough is known about climate change to recognize it may pose a legitimate long-term risk, and that more needs to be learned about it. Many scientists and economists believe that it is inappropriate to impose costly policies such as the Kyoto Protocol—the result of a 1997 negotiation by governments to reduce greenhouse gas emissions only in certain countries.

In the United States, the Department of Energy has estimated that the Kyoto Protocol would require a dramatic (30 percent) near-term reduction in the projected use of energy. Most economists tell us that such a step would damage our economy and almost certainly require large increases in taxes on gas and oil. It could also entail

enormous transfers of wealth to other countries.

Even if it were implemented, the Protocol would not accomplish what it is supposed to do—reduce the global buildup of greenhouse gases. Why? Because the Kyoto Protocol does not restrict emissions in developing countries. These countries, which are growing rapidly, desperately need energy to improve the welfare of their people. They have not agreed to limit their energy use and could not do so without undermining growth.

Moreover, for most nations the Kyoto Protocol would require extensive diversion of human and financial resources away from more immediate and pressing needs in health care, education, infrastructure, and, yes, the environment—all critical to the well-being of future generations.

We support and are undertaking feasible and affordable ways to voluntarily use less energy today. In addition, we propose an approach that continues a strong focus on scientific understanding, carefully evaluates the costs and benefits of policies, and promotes research and development of technical options that have the potential to make significant longer-term reductions in emissions, if they are needed. Over the next few weeks, we'll discuss these proposals in more detail.

Although it is hard to predict what the weather is going to be this weekend, we know with certainty that climate change policies, unless properly formulated, will restrict life itself.

## ExxonMobil

[www.exxonmobil.com](http://www.exxonmobil.com)

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- <sup>1</sup> BP. (2007) *Environment and Society*. Retrieved April 2008, from BP:  
<http://www.bp.com/productlanding.do?categoryId=6900&contentId=7028276>
- <sup>2</sup> ExxonMobil. (2006), *Tomorrow's Energy: A Perspective on Energy Trends, Greenhouse Gas Emissions, and Future Energy Options*. Retrieved April 2008, from Exxon Mobil:  
[http://www.exxonmobil.com/Corporate/Files/Corporate/tomorrows\\_energy.pdf](http://www.exxonmobil.com/Corporate/Files/Corporate/tomorrows_energy.pdf)
- <sup>3</sup> Ibid.
- <sup>4</sup> U.S. Environmental Protection Agency. (2007). *Climate Change – Science*. Retrieved April 2008, from EPA: <http://www.epa.gov/climatechange/science/index.html>
- <sup>5</sup> Earth Policy Institute. (2004) *Eco-Economy Indicators*. Retrieved April 2008, from: <http://www.earth-policy.org/Indicators/CO2/2004.htm>
- <sup>6</sup> BP. (2007) *Environment and Society*. Retrieved April 2008, from BP:  
<http://www.bp.com/productlanding.do?categoryId=6900&contentId=7028276>
- <sup>7</sup> Ibid.
- <sup>8</sup> ExxonMobil. (2006), *Tomorrow's Energy: A Perspective on Energy Trends, Greenhouse Gas Emissions, and Future Energy Options*. Retrieved April 2008, from Exxon Mobil:  
[http://www.exxonmobil.com/Corporate/Files/Corporate/tomorrows\\_energy.pdf](http://www.exxonmobil.com/Corporate/Files/Corporate/tomorrows_energy.pdf)
- <sup>9</sup> Ibid.
- <sup>10</sup> Ibid.
- <sup>11</sup> BP. (2007) *Environment and Society*. Retrieved April 2008, from BP:  
<http://www.bp.com/productlanding.do?categoryId=6900&contentId=7028276>
- <sup>12</sup> ExxonMobil. (2006), *Tomorrow's Energy: A Perspective on Energy Trends, Greenhouse Gas Emissions, and Future Energy Options*. Retrieved April 2008, from Exxon Mobil:  
[http://www.exxonmobil.com/Corporate/Files/Corporate/tomorrows\\_energy.pdf](http://www.exxonmobil.com/Corporate/Files/Corporate/tomorrows_energy.pdf)
- <sup>13</sup> BP. (2007) *Environment and Society*. Retrieved April 2008, from BP:  
<http://www.bp.com/productlanding.do?categoryId=6900&contentId=7028276>
- <sup>14</sup> Ibid.
- <sup>15</sup> Hydrogen Energy. *What we do?* Retrieved April 2008, from:  
<http://www.hydrogenenergy.com/section.aspx?m=5>
- <sup>16</sup> Gelsi, S. BP, (2008). *Conoco team up on major Alaska gas pipeline*. Retrieved April 2008, from MarketWatch: <http://www.marketwatch.com/news/story/bp-conocophillips-team-up-alaska/story.aspx?guid=%7B576E6CDE-4659-423C-B565-205C2E1313D6%7D>
- <sup>17</sup> BP. (2007) *Environment and Society*. Retrieved April 2008, from BP:  
<http://www.bp.com/productlanding.do?categoryId=6900&contentId=7028276>
- <sup>18</sup> Milmo, C. (2007). *The Biggest Environmental Crime in History*. Retrieved April 2008, from The Independent: <http://www.independent.co.uk/environment/the-biggest-environmental-crime-in-history-764102.html>
- <sup>19</sup> ExxonMobil. (2007). *Energy and Environment*. Retrieved April 2008, from ExxonMobil:  
<http://www.exxonmobil.com/Corporate/energy.aspx>
- <sup>20</sup> Ibid.
- <sup>21</sup> ExxonMobil. (2006), *Tomorrow's Energy: A Perspective on Energy Trends, Greenhouse Gas Emissions, and Future Energy Options*. Retrieved April 2008, from Exxon Mobil:  
[http://www.exxonmobil.com/Corporate/Files/Corporate/tomorrows\\_energy.pdf](http://www.exxonmobil.com/Corporate/Files/Corporate/tomorrows_energy.pdf)
- <sup>22</sup> Social Funds. (200). *Global Climate Coalition Cools Down*. Retrieved April 2008, from Social Funds:  
<http://www.socialfunds.com/news/article.cgi/320.html>
- <sup>23</sup> Ibid.
- <sup>24</sup> Troesken, W. (2002). The Letters of John Sherman and the Origins. *The Review of Austrian Economics* , 275–295.
- <sup>25</sup> Wei-Skillern, J. (2004). Sustainable Development at Shell (A). *Harvard Business School* , 1-12.
- <sup>26</sup> Livesey, S. M. (2002). Global Warming Wars: Rhetorical and Discourse Analytic Approaches to Exxonmobil's Corporate Public Discourse. *Journal of Business Communication* , 117-149.
- <sup>27</sup> Exxon Advertisement, *New York Times*; Mar 16, 2000; *The New York Times*, pg. A23
- <sup>28</sup> Ibid.
- <sup>29</sup> Union of Concerned Scientists. (2007). *Smoke, Mirrors, & Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science*. Cambridge, MA: Union of Concerned Scientists.

- 
- <sup>30</sup> Global Climate Science Team. (4/03/1998). *Global Climate Science Communications Action Plan*.
- <sup>31</sup> Ibid.
- <sup>32</sup> Union of Concerned Scientists. (2007). *Smoke, Mirrors, & Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science*. Cambridge, MA: Union of Concerned Scientists.
- <sup>33</sup> Ibid.
- <sup>34</sup> Competitive Enterprise Institute. (2006). *Global Warming - "Energy" Video*. Retrieved April 2008, from CEI: <http://cei.org/video/global-warming-energy>
- <sup>35</sup> Heartland Institute Staff. (2008, March 4). *New York Global Warming Conference Considers 'Manhattan Declaration'*. Retrieved April 2008, from Heartland Institute: <http://www.heartland.org/Article.cfm?artId=22866>
- <sup>36</sup> Green, J. (2000, September 27). BP: The Big Poluter. *Green Left Online*.
- <sup>37</sup> Ibid.
- <sup>38</sup> Livesey, S. M., & Kearins, K. (2002). Transparent and Caring Corporations? : A Study of Sustainability Reports by the Body Shop and Royal Dutch/Shell. *Organization & Environment*, p. 246
- <sup>39</sup> Rowlands, I. H. (2000). Beauty and the Beast? BP's and Exxon's positions on global climate change. *Environment and Planning C: Government and Policy*, 339-354.
- <sup>40</sup> Ibid.
- <sup>41</sup> BP: Coloring Public Opinion?(NATIONAL)(BP America Inc.).Gregory Solman. ADWEEK Online (Jan 14, 2008)
- <sup>42</sup> Austin, A. (2002). Advancing Accumulation and Managing its Discontents: The U.S. Antienvironmental Countermovement. *Sociological Spectrum*, 71-105.
- <sup>43</sup> Hoffman, A. J. (1997). *From Heresay to Dogma*. San Francisco: The New Lexington Press.
- <sup>44</sup> Coile, Zachary. (2008). *Congress asks Big Oil to justify big profits*. Retrieved April 2008, from San Francisco Gate: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/04/01/MNU7VU217.DTL>
- <sup>45</sup> Ibid.
- <sup>46</sup> Ibid.
- <sup>47</sup> Herbert, Josef. (2008). *Congress Slams Oil Chiefs on Profits*. Retrieved April 2008, from AP: <http://ap.google.com/article/ALeqM5hXYEJn5mPsy7MTBNSI0bUDptri0QD8VPAQMG0>
- <sup>48</sup> CNN. (2008). *Climate change threatens existence, Eskimo lawsuit says*. Retrieved April 2008, from CNN: <http://www.cnn.com/2008/WORLD/americas/02/26/us.warming.ap/index.html>
- <sup>49</sup> Clarke, Renfry. (2008) *Corporations and Climate Change*. Retrieved April 2008, from Green Left: <http://www.greenleft.org.au/2008/745/38559>
- <sup>50</sup> Herbert, Josef. (2008). *Congress Slams Oil Chiefs on Profits*. Retrieved April 2008, from AP: <http://ap.google.com/article/ALeqM5hXYEJn5mPsy7MTBNSI0bUDptri0QD8VPAQMG0>
- <sup>51</sup> Ibid.
- <sup>52</sup> Ibid.
- <sup>53</sup> Ibid.
- <sup>54</sup> Coile, Zachary. (2008). *Congress asks Big Oil to justify big profits*. Retrieved April 2008, from San Francisco Gate: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/04/01/MNU7VU217.DTL>
- <sup>55</sup> Memorandum (2007). *November 14<sup>th</sup> hearing entitled state Leadership Towards a Low-Carbon Energy future*
- <sup>56</sup> Hoffman, A. (2006). *Getting Ahead of the Curve: Corporate Strategies that Address Climate Change*. Retrieved April 2008, from the Pew Center: [http://www.pewclimate.org/docUploads/PEW\\_CorpStrategies.pdf](http://www.pewclimate.org/docUploads/PEW_CorpStrategies.pdf)
- <sup>57</sup> State of California. Retrieved April 2008, from State of CA: <http://gov.ca.gov/index.php?/press-release/4111/>
- <sup>58</sup> Coile, Zachary. (2008). *Congress asks Big Oil to justify big profits*. Retrieved April 2008, from San Francisco Gate: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/04/01/MNU7VU217.DTL>
- <sup>59</sup> Logan, A. & David Grossman. *ExxonMobil's Corporate Governance on Climate Change*. CERES.
- <sup>60</sup> Ibid.
- <sup>61</sup> Wastervelt, A. *BP retreats from renewables as competitors invest*. Retrieved April 2008, from Sustainable Industries: <http://www.sustainableindustries.com/sijnews/17283679.html>
- <sup>62</sup> Ibid.

---

<sup>63</sup> ExxonMobil. (2007). *Energy and Environment*. Retrieved April 2008, from ExxonMobil:  
<http://www.exxonmobil.com/Corporate/energy.aspx>

<sup>64</sup> Milmo, C. (2007). *The Biggest Environmental Crime in History*. Retrieved April 2008, from The Independent: <http://www.independent.co.uk/environment/the-biggest-environmental-crime-in-history-764102.html>

<sup>65</sup> Social Funds. (200). *Global Climate Coalition Cools Down*. Retrieved April 2008, from Social Funds:  
<http://www.socialfunds.com/news/article.cgi/320.html>