ExxonMobil's Corporate Governance on Climate Change

Authored by
Andrew Logan
David Grossman

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Ceres

Ceres is a coalition of investors and environmental groups working with companies to address sustainability challenges such as climate change. Ceres coordinates the Investor Network on Climate Risk, a group of more than 50 institutional investors managing nearly $3 trillion in assets.

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Ceres, Inc.
99 Chauncy Street
Boston, MA 02111
www.ceres.org

Investor Network on Climate Risk
www.incr.com

Foreword

The world needs leadership in making the best decisions about global warming and world energy needs for the next fifty years. ExxonMobil has maybe the premier position from which to provide this leadership. In unhappy contrast to virtually all aspects of its operating performance, ExxonMobil declines to act like a leader in these critical areas. We are all the poorer.

Robert A.G. Monks
Leading Corporate Governance Expert
Founder of Institutional Shareholder Services
Co-Author, Corporate Governance *(Blackwell, 1995)*

Executive Summary

This report analyzes ExxonMobil's actions and new statements concerning climate change and renewable energy. It compares their actions and statements of competitors, as well as against basic standards put forth by investors concerned about climate change risks and the economic opportunities presented by a clean energy future. The report demonstrates the following points:

1. ***ExxonMobil's statements in its* 2005 Corporate Citizenship Report *(May 2006) and its 2006* Tomorrow's Energy *(February 2006) report demonstrate a corporate plan and mindset unprepared for leadership in a carbon constrained world.***
2. ***ExxonMobil's statements, plans, actions, and investments on climate change and clean energy lag behind competitors like BP, Royal Dutch Shell, Chevron and Total.***
3. ***ExxonMobil's shareholders bear a substantial financial, competitive, and reputational risk as a result of the company's lack of strategic focus on R&D and deployment of clean, renewable energy technologies.***

1. ExxonMobil's reports demonstrate a corporate plan and mindset unprepared for leadership in a low-carbon energy world.

ExxonMobil recently released its *2005 Corporate Citizenship Report* (May 2006) and its report on *Tomorrow's Energy* (February 2006). Both spend more time explaining Exxon's position on climate change than previous reports, but they also make clear that Exxon's fundamental business approach and thinking on climate change has not changed. The company still firmly believes that oil is the future and that concerns about climate change do not merit meaningful investments in clean energy and alternative fuels.

ExxonMobil continues to question the science of climate change.

In these two reports, ExxonMobil acknowledges that human activities have contributed to the increased concentrations of greenhouse gases (GHG) and that this accumulation "poses risks that may prove significant for society and ecosystems." The company declares that "these risks justify actions now, but the selection of actions must consider the uncertainties that remain."[1] Exxon then goes on to describe:

- the complexities of climate science;
- the limits of climate knowledge;
- the limits of current climate models;
- the uncertainty of projections

In addition ExxonMobil claims:

- that the assumptions underlying researchers' scenarios result in predictions ranging from significant emissions growth to a drop in global emissions even without policy intervention;
- that the conclusions of the Intergovernmental Panel on Climate Change that recent warming can be attributed to increases in greenhouse gases are based on expert judgment rather than objective, reproducible statistical methods; and
- that the National Research Council has said that the IPCC's conclusion that a link exists between greenhouse gases and climate changes in the 20th century cannot be unequivocally established but rather is only suggestive of a linkage, because the model simulations could be deficient.[2]

ExxonMobil declares that "even with many scientific uncertainties," action is still justified. However, by emphasizing the remaining points of uncertainty rather than the scientific consensus that has emerged on the human role in climate change, ExxonMobil continues to take a deliberative approach that casts climate change as a long-term problem rather than a priority for near-term action. Moreover, ExxonMobil continues to fund several individuals and organizations that cast doubt on climate change science and whose thinking is now clearly outside of the mainstream scientific community.

Despite their rhetoric, ExxonMobil is not taking the actions needed to address the financial and competitive risks posed by climate change.

ExxonMobil operates on the assumption that oil and gas will continue to represent a large percentage of the energy mix, whereas renewable energy sources will remain minimal.

ExxonMobil's energy outlook sees fossil fuels continuing to satisfy the vast majority of global energy demand through at least 2030, as these are "the only fuels with the scale and flexibility to meet the bulk of the world's vast energy needs over this period." The company predicts that oil and gas will continue to represent roughly 60% of overall energy sources in 2030 and that no large-scale alternative to oil as a transport fuel will arise in the near-term. ExxonMobil expects wind power, solar power, and biofuels to

1. ExxonMobil, *2005 Corporate Citizenship Report*, p.22.

2. ExxonMobil, *2005 Corporate Citizenship Report*, pp.22–23. ExxonMobil, *Tomorrow's Energy*, p.10.

supply about 2% of world energy by 2030, despite the fact that current calculations by the Renewable Energy Policy Network estimate that renewable energy *already* supplies roughly 4% of world power.[3] Specifically, ExxonMobil forecasts that biofuels will grow from less than 1 million barrels per day in 2005 to more than 3 million in 2030. It predicts that wind and solar will grow about 11% per year "supported by subsidies and related mandates", despite the fact that grid-connected solar power grew by 60% per year from 2000 to 2004.[4] ExxonMobil's view is that alternative energy sources can have the greatest carbon-offsetting impact in the electricity sector, and that the world will continue to demand oil and gas for most of its primary energy needs for decades to come.[5]

ExxonMobil's investments in clean energy R&D and deployment have been minimal.

ExxonMobil has invested in improving its energy efficiency, increasing its co-generation capacity by 12% in 2005 and working to reduce gas flaring in Nigeria and elsewhere. It has also supported research into producing more fuel-efficient internal combustion engines, although the extent of that support is unclear.

The company states that "technologies like carbon capture and sequestration, hydrogen production and use, solar, and biotechnologies all require fundamental breakthroughs in research to overcome current barriers to cost, performance, safety, and public acceptance before they could enter into widespread use."[6] In terms of its own research and deployment of clean, renewable technologies, however, ExxonMobil's investments have been minimal. The company declares that it is conducting research into hydrogen production technologies for fuel cells, though again, the extent of support for that research is unclear.

Exxon's principal investment in clean energy research appears to be support of the Global Climate and Energy Project at Stanford University, which the company describes as the "largest-ever privately funded research effort in low-greenhouse-gas energy." GCEP involves solar, hydrogen, and carbon sequestration research and is sponsored by Exxon, General Electric, Toyota, and Schlumberger, which will invest up to $225 million combined over 10 years.[7] Exxon contributed just under $9 million to GCEP through 2005 and "plans to invest up to $100 million" over the decade, which represents about $10 million per year, compared to the $600 million per year the company invests in all of its R&D.[8] By way of comparison, ExxonMobil earned as much in profits *each day* in 2005 as it plans to contribute to GCEP over the entire decade. The size of this contribution and the time frame in which it will be made underscores ExxonMobil's view that climate change is a long-term problem and not a near-term priority.

In contrast, the private venture capital community has begun investing heavily in clean energy technology, as have ExxonMobil's competitors. ExxonMobil continues to lag behind.

2. ExxonMobil lags behind competitors like BP and Royal Dutch Shell on low-carbon leadership

ExxonMobil's nearly singular focus on oil and gas has placed it substantially behind competitors like BP and Royal Dutch Shell, which have committed billions of dollars toward the development of low-carbon technologies that they intend to build as new profit centers for their companies.

3. REN21 Renewable Energy Policy Network. 2005. "Renewables 2005 Global Status Report." Page 4. Washington, DC: Worldwatch Institute.

4. Renewable Energy Policy Network. 2005. "Renewables 2005 Global Status Report." Page 4. Washington, DC: Worldwatch Institute.

5. ExxonMobil, *2005 Corporate Citizenship Report*, p.10. ExxonMobil, *Tomorrow's Energy*, pp.3-4, 17. Interestingly, ExxonMobil includes the "subsidies" caveat for no other energy source but wind and solar and fails to mention the government subsidies that have long supported oil and gas.

6. ExxonMobil, *Tomorrow's Energy*, p.9.

7. ExxonMobil, *2005 Corporate Citizenship Report*, pp.29, 39.

8. ExxonMobil, *Tomorrow's Energy*, p.7. Global Climate and Energy Project brochure, Stanford University website, http://gcep.stanford.edu/pdfs/gcep_brochure.pdf

In 2004, Goldman Sachs unveiled its Energy Environmental and Social Index. On climate change, ExxonMobil ranked last among the major oil companies and 12th out of 23 total, behind BP, Royal Dutch Shell, Total, Statoil, Norsk Hydro, BG, ENI, OMV, Repsol, Amerada Hess, and Chevron Texaco. BP, Royal Dutch Shell, and Total have all set and surpassed greenhouse gas reduction targets, whereas ExxonMobil has no reduction target.[9] In an update to the Goldman Index report in August 2005, BP and Royal Dutch Shell scored a 5 out of 5 for renewable and alternative energy, whereas ExxonMobil scored a 2, underscoring one of the report's headlines reading: "The Majors except ExxonMobil lead on developing alternative energy sources." Goldman Sachs noted that all the major companies have multi-faceted renewable energy programs (wind, solar, biofuels, and hydrogen) except ExxonMobil, which has invested primarily in R&D for hydrogen alone.[10]

Similarly, a report commissioned by Ceres from the Investor Responsibility Research Center in March 2006 evaluated companies in several industry sectors against a Climate Change Governance Checklist consisting of 14 governance steps in 5 categories that companies can take to proactively address climate change. The checklist topics include: Board Oversight, Management Execution, Public Disclosure, Emissions Accounting, and Emissions Management & Strategic Opportunities. Using a 100-point scoring system, ExxonMobil scored 35, compared to 90 for BP and 79 for Royal Dutch/Shell. These two prime competitors to ExxonMobil have set long-term GHG reduction goals and measure emissions from customer use of their products. They also have strong Board and Management involvement on climate issues, have made efforts to demonstrate carbon sequestration to enhance oil recovery, and have made major financial commitments to alternative energy sources like solar, wind, and hydrogen.[11]

The Climate Change Governance Checklist scores of the major oil companies clearly demonstrate the significant gap that exists between them.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	***100***
BP	9	16	13	23	29	**90**
Royal Dutch/Shell	7	15	7	23	27	**79**
Total	6	15	12	13	16	**62**
Chevron	7	10	5	17	18	**57**
ExxonMobil	5	5	5	12	8	**35**

Source: Ceres, Corporate Governance and Climate Change: Making the Connection, March 2006, p.25

The differences in company focus among the major oil companies are clear:

- **BP** was the first major oil company to state publicly, in 1997, that the risks of climate change are serious and that precautionary action is justified. Since then, its business plan-ning and long-term strategy have been focused on the need to stabilize atmospheric GHG concentrations, even as global energy use continues to grow. BP set initial targets to reduce operational GHG emissions 10% below 1990 levels by 2010, which it achieved by 2001. BP now aims to hold its emissions steady through 2012 through additional energy efficiency gains and increased customer use of less carbon-intensive products. BP established BP Alternative Energy in 2005, which plans to invest $8 billion over 10 years in solar, wind, hydrogen, and combined-cycle generation technologies over the next decade, representing an annual expenditure equal to eighty times ExxonMobil's yearly GCEP expenditure.[12]

9. Goldman Sachs, Energy Environmental and Social Index, Feb. 24, 2004, pp.3, 47.

10. Goldman Sachs, *Sustainable Investing in the Energy Sector*, Aug. 24, 2005, pp.120, 130.

11. Ceres, *Corporate Governance and Climate Change: Making the Connection*, March 2006, pp.3-4, 23.

12. Ceres, p.209. BP website, http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7012352

- **Royal Dutch Shell** has invested more than $1 billion since 1998 to develop alternative energy technologies and has established Shell Renewables and Shell Hydrogen as business units. It has set a long-term target to hold its GHG emissions from its facilities at least 5% below 1990 levels through 2010. Shell has a climate change advisor and assigns personnel within each of its business groups to address climate-related issues. It has extensive experience with GHG emissions trading, first internally and now through several government programs. Shell reports extensively on its climate change and GHG control programs, and in 2004, it made an estimate of its carbon footprint.[13]
- **Total** has set and exceeded goals to reduce the intensity rate of its GHG emissions from exploration and production activities relative to 1990 levels, and new targets are under development for 2010. The company's R&D investments in new technologies evaluate the potential costs of GHG emissions. TOTAL is involved in solar, wind, and carbon sequestration technologies as emerging commercial businesses, and it is discussing biofuel production plants in Africa and South America.[14]
- **Chevron** incorporates GHG assessments into its strategic planning process. Chevron set a target in 2004 to hold its GHG emissions flat, mainly through improvements in energy efficiency and reductions in flaring and venting of natural gas. In 2004, Chevron launched an expanded strategy to integrate renewable energy applications into its portfolio of energy products. Its strategy is focused mainly on wind and geothermal energy projects, though it is also evaluating opportunities in solar. With the acquisition of Unocal, Chevron has become the largest producer of geothermal energy in the world. It is also involved in gas-to-liquids production and carbon sequestration programs. Through Chevron Technology Ventures, it invests more than $100 million a year in low-carbon and carbon-free technologies.[15]
- **ExxonMobil**, in contrast, has set no targets to control its GHG emissions and has no current investments in renewable energy businesses, saying it has a "responsibility to provide oil and gas supply" to meet future energy demand. Internally, the company has focused on increasing energy efficiency at its refineries and chemical plants, achieving a 35% reduction in energy and CO_2 intensity rates of production since 1973; it has targeted a further 10% reduction in its intensity rates in 2002–2012.[16] As noted, the company's recent reports highlight the uncertainties in climate science, and Exxon has invested little in clean energy technologies. ExxonMobil has also supported the work of some of the nation's leading skeptics on climate change, some of whom claim that fears of global warming are overblown.[17]

BP, Royal Dutch Shell, Chevron and Total have shown leadership in promoting clean energy technologies, launching separate clean energy businesses with meaningful financing. ExxonMobil has exhibited no inclination to play a leadership role in a low-carbon world.

3. ExxonMobil's shareholders bear a substantial financial and competitive risk.

By virtue of its carbon-intensive products and long capital horizons, the oil sector is uniquely exposed to economic, competitive, and physical risks resulting from climate change. Petroleum fuels and natural gas are the largest sources of carbon dioxide (CO_2) emissions in the U.S., accounting for 58 percent of the nation's total. Given these risks, some long-term investors are troubled that ExxonMobil has not adequately prepared for the changing regulatory environment and competitive marketplace resulting from the drive toward a low-carbon world. ExxonMobil's recent reports and disclosures on climate change do little to assuage these concerns.

13. Ceres, *Corporate Governance and Climate Change*, March 2006, p. 233.
14. Ibid., pp. 243–45.
15. Ibid., pp. 214–16.
16. Ibid., p. 224.
17. Ibid., p. 225.

ExxonMobil and the oil and gas industry as a whole face significant climate risks and opportunities:

✦ **New regulations could cause market shifts away from fossil fuels and toward lower-carbon energy sources.** In the past year, the industry has seen the enactment of the Kyoto Protocol in dozens of industrialized countries, the first-ever carbon emissions trading program in Europe, and unprecedented global growth in solar, wind and other renewable energy. In the U.S., 21 states now have renewable portfolio standards to promote alternative energy use.

In the electricity market, these regulatory forces will help propel solar and wind power—already the two fastest growing energy technologies in the world—as viable alternatives to fossil fuels. Shareholders need to know how ExxonMobil plans to respond to what could be either a massive competitive risk or a potential economic opportunity.

And ExxonMobil faces risks in its oil business as well. In his 2006 State of the Union address, President Bush called for an end to the United States' "addiction" to oil. In 2004, global production of biofuels exceeded 33 billion liters, about 3 percent of the 1,200 billion liters of gasoline consumed. Domestically, the 2005 U.S. Energy Bill will increase production even further by requiring 7.5 billion gallons of biofuels to be sold by 2012. Shell predicts "the global market for biofuels such as cellulosic ethanol will grow to exceed $10 billion by 2012." U.S.-produced ethanol could top 50 billion gallons per year, displacing 2.6 million barrels per day of oil (about 13% of total current consumption).[18] ExxonMobil shareholders need to know that management is taking this market risk seriously.

ExxonMobil provides no meaningful disclosure about climate change in its securities filings. The company does not analyze or quantify the effect on the company and on shareholder value of any plausible greenhouse gas regulatory scenarios. In fact, the company states that "it is impossible today to assess the potential implications for shareholder value from initiatives to address climate change," in part because no governments have established definitive regulations for the 2008-2012 Kyoto period or for post-2012. ExxonMobil goes on to assert that recent efforts by the World Resources Institute to quantify potential implications of climate-related policies for the oil and gas industry shareholders rely on regulatory assumptions that are "speculative and unlikely" and also "fail to take into account adjustments to investments and other business decisions that companies may make in the context of evolving regulatory frameworks." The company believes that its strong financial position, management efficiency, and technical capacity will enable it to evolve as opportunities arise in an uncertain future.[19] In other words, ExxonMobil's plan appears to be to stay the course and try to adjust when changes occur. The company's plan is one that involves adaptation, as opposed to leadership.

✦ **Direct physical impacts.** In addition to competitive risks, oil and gas companies face significant physical risks as a result of climate change. Long-term capital investment plans may not properly account for climatic alterations. For example, a proposed $7 billion natural gas pipeline in Canada's Mackenzie Valley is dependent on permafrost, or frozen ground, as a supportive structure (this is not an Exxon project). When permafrost thaws, a process that has already begun faster than once predicted, long-term investments in pipelines will be at risk. ExxonMobil also has substantial operations elsewhere in Arctic regions, such as the North Slope of Alaska and Sakhilin Island in Russia, where rapid warming is now taking place.

Likewise, ExxonMobil has substantial offshore operations in hurricane-prone regions like the Gulf of Mexico. When Hurricane Katrina barreled through the Gulf Coast in 2005, it decimated critical oil production infrastructure – both on- and offshore - and caused nationwide gas shortages and surging prices at the pump. The U.S. consumer trend toward hybrid and fuel efficient vehicles soared. The 2006 hurricane season is now about to begin and another extremely active hurricane season is forecast.

18. Source: The Energy Future Coalition (www.energyfuturecoalition.org)

19. ExxonMobil, *Tomorrow's Energy*, p.13.

ExxonMobil provides no analysis indicating that it takes seriously the potential risks to its operation and its competitiveness from climate change.

✦ **Strategic Analysis of Climate Risk.** In response to Exxon's recent reports, investors concerned about climate change have raised questions about whether the company is putting itself at financial and competitive risk by failing to pursue alternatives to petroleum-based fuels. However, ExxonMobil's business plan seems to consider no scenarios that incorporate the possibility that consumer demand may shift sharply due to changes in domestic and international energy markets, and the company's reflects this.

> *"The concern we have with ExxonMobil is that their long-term expectation is that the proportion of energy needs met by oil will remain the same," said John Wilson, who helps manage $4.2 billion at Christian Brothers Investment Services Inc. in New York. "There's no sense that they've done any kind of real planning in case it doesn't turn out that way." Seventeen leading U.S. pension funds and other institutional investors controlling $658 billion in assets have requested a meeting with the ExxonMobil board because of growing concerns that the company "fails to acknowledge the potential for climate change to have a profound impact on global energy markets, and … lags far behind its competitors in developing a strategy to plan for and manage these impacts."*

ExxonMobil's poor corporate governance on climate change also does not bolster investor confidence in the company's ability to track developments and to adapt the corporate structure as needed. BP's CEO, Lord John Browne, continually promotes the company's strategy for climate change, the company has an executive director on the board with operational responsibility for BP's climate change strategy, and has launched a separate business (BP Alternative Energy) to push and capitalize on clean energy technology.[20] Royal Dutch Shell's CEO has championed action on climate change, viewing it as both a challenge and an opportunity, saying "the risk to delay action is too great." The company has launched a variety of renewable energy business units, and it has an executive responsible for all CO_2-related technology development and implementation and another responsible for following the development of the climate change issue externally and advising the company on how to proceed.[21] ExxonMobil, by contrast, has no climate change executive or executive committee.[22]

Conclusion

ExxonMobil claims that the risks from climate change justify action now, but it continues to undercut the drive for action by highlighting the uncertainties in climate science and by funding climate skeptics. The company's long-term strategy is largely based on the assumption that oil demand will not decline through at least 2030. ExxonMobil is not preparing for the possibility that a different scenario may occur that involves more constrictive carbon constraints, less use of oil, and/or significantly greater use of clean energy technologies. ExxonMobil is betting on oil with shareholders' money instead of preparing for an uncertain future, and as a consequence is lagging behind its competitors. ExxonMobil is not taking the actions needed to prepare for leadership in a low-carbon world.

20. Ceres, *Corporate Governance and Climate Change*, March 2006, p. 209

21. Ibid., p. 233.

22. Ibid., p. 225.

Appendix

Profile of ExxonMobil's Corporate Governance on Climate Change and Profiles of Its Competitors BP, Shell, Chevron, Total

Source: *Corporate Governance and Climate Change Report*
Commissioned by Ceres; Authored by Douglas G. Cogan of the Investor Responsibility Research Center

March 2006

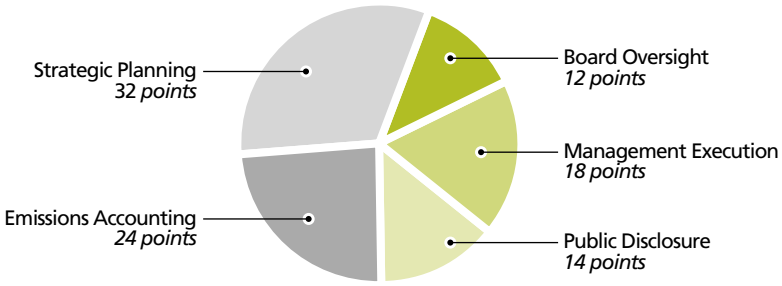
How Companies are Scored

Companies were evaluated according to a Climate Change Governance Checklist. The checklist consists of 14 governance steps that companies can take to proactively address climate change. For this report, the checklist has been expanded to rank companies on a 100-point scale. Each of the five governance categories carries a different number of maximum points to reflect the number of actions available and their relative importance to the overall score.

Climate Change Governance Checklist: 100 Point System		
	BOARD OVERSIGHT	*Points*
1	Board committee has explicit oversight responsibility for environmental affairs.	
2	Board conducts periodic review of climate change and monitors progress in implementing strategies.	**Up to 12**
	MANAGEMENT EXECUTION	
3	Chairman/CEO clearly articulates company's views on climate change and GHG control measures.	
4	Executive officers are in key positions to monitor climate change and coordinate response strategies.	**Up to 18**
5	Executive officers' compensation is linked to attainment of environmental goals and GHG targets.	
	PUBLIC DISCLOSURE	
6	Securities filings identify material risks, opportunities posed by climate change.	
7	Sustainability report offers comprehensive, transparent presentation of company response measures.	**Up to 14**
	EMISSIONS ACCOUNTING	
8	Company calculates and registers GHG emissions savings and offsets from projects.	
9	Company conducts annual inventory of GHG emissions from operations and publicly reports results.	**Up to 24**
10	Company has set an emissions baseline by which to gauge future GHG emissions trends.	
11	Company has third party verification process for GHG emissions data.	
	EMISSIONS MANAGEMENT AND STRATEGIC OPPORTUNITIES	
12	Company sets absolute GHG emission reduction targets for facilities and products.	
13	Company participates in GHG trading programs to gain experience and maximize credits.	**Up to 32**
14	Company pursues business strategies to reduce GHG emissions, minimize exposure to regulatory and physical risks, and maximize opportunities from changing market forces and emerging controls.	

The scoring system used in this report is intended as a detailed benchmarking tool for institutional investors and corporations ready to take action on climate change; it is *not* a simplistic ranking of "best and worst" companies. The scoring system measures the degree to which companies perceive risks and opportunities posed by climate change, and the governance actions they are taking in response.

No two companies are alike and their possible response options to climate change vary. Because the choices, challenges, risks and opportunities that companies face in addressing climate change are not identical, they should be judged individually, within their industry groups, and against the overall survey sample. ***Of particular interest to investors should be companies that rank high or low in relation to their industry peers.***



Climate Change Governance Weighting

The scoring system used in this report rewards companies that have taken the following types of actions:

- **Public disclosure:** The analysis in this report is largely dependent on information companies have placed in the public domain for use by investors and other interested stakeholders. Companies with more information available on their governance responses to climate change—as presented in securities filings, sustainability reports, corporate websites, CEO presentations and responses to third-party questionnaires (like the Carbon Disclosure Project)—generally score better.
- **Policy advocacy:** This report credits companies that have spoken publicly about the need for a government regulatory framework to address climate change. Though companies express near-universal support for market-based actions taken on a voluntary basis to control GHG emissions, such measures have done little to slow rising emissions. In addition, the absence of U.S. government control targets has added to investor uncertainty and complicated corporate strategic planning. Accordingly, the scoring system rewards companies that support national regulatory action on climate change and are explicit in their own governance responses. It credits CEOs who have assumed advocacy roles in their industries, as well as boards of directors and executive committees that have strived to incorporate climate policy considerations into their strategic planning and decision-making.
- **Early action:** This report's scoring system reserves the most credit for companies that have taken early actions to address climate change and control GHG emissions. The Framework Convention on Climate Change (ratified by the U.S. Congress in 1992) set 1990 as a baseline year to reduce GHG emissions. Consistent with the science backing the need for GHG reductions, our scoring system awards the most points to companies that have achieved actual reductions below their 1990 levels. Whether these early movers reap long-term financial benefits from their actions will depend partly on how they are treated by regulators and the capital markets. In any case, this report assumes that companies with more experience preparing for carbon emission constraints stand to gain the greatest competitive advantages.
- **Long-term planning:** This report rewards companies that take a long-term view of their enterprises and capital investment decisions. As described earlier, climate change presents a "governance gap" in decision-making, whereby the warming effects of greenhouse gases in the atmosphere far outlast the tenure of corporate executives and the payback periods of their investments. Accordingly, our scoring system rewards companies that project their GHG emissions well into the future and that seek to reduce their carbon emission "footprints" over the life cycle of the products they sell. The scoring system also recognizes that because some products and capital equipment are more durable and carbon-intensive than others, some companies and industry groups have greater opportunities to address climate change in a long-term planning context.

ExxonMobil Corp.

NYSE: ***XOM***
Industry: ***Petroleum***

ExxonMobil believes that new technologies are the key to addressing climate change and meeting world energy demand. It estimates that conventional fuels will continue to supply 99% of energy demand over the next quarter-century and says it has a "responsibility to provide oil and gas supply" to meet this demand. Internally, the company is focused on increasing energy efficiency at its refineries and chemical plants, achieving a 35% reduction in energy and CO_2 intensity rates of production since 1973. It has targeted a further 10% reduction in its intensity rates in 2002-2012. The company published a report in February 2006 on energy and GHG emissions trends that was reviewed by its board of directors. While the report drew a link between fossil energy use and rising GHG emissions, it said scientific evidence of climate change remains inconclusive.

Summary Score: 35

Company Information

ExxonMobil is the world's largest energy and petroleum company, by market capitalization, engaged in all aspects of the oil and natural gas business. Its five upstream businesses are exploration, development, production, gas marketing, and upstream research; its four downstream businesses are refining and supply, fuels marketing, lubricants and petroleum specialties, and technology. The company also is a leading producer and marketer of petrochemicals and has interests in electric power generation. It had sales of $291.3 billion in 2004.

Contact Information

CEO / Chairman	Rex W. Tillerson
Contact	Tel: 972-444-1000 • Web: www.exxonmobil.com
Address	5959 Las Colinas Blvd Irving, TX 75039-2298 USA

Board Oversight

Score: 5

Board Committee	Public Issues Committee
Committee Chair	Michael Boskin, Professor of Economics, Stanford University
Actions Taken	According to the company's 2005 proxy statement, "ExxonMobil's Board is monitoring the Company's approach to managing greenhouse gas emissions." In this context, the company says, the board has addressed the climate change issue and reviews the company's climate change policy at least annually. The board also reviewed the company's two *Energy Trends* reports (which discuss greenhouse gas emissions) in draft form and approved their release after suggesting changes.

Management Execution

Score: 5

CEO Statement	Former ExxonMobil Chairman Lee Raymond (who retired at the end of 2005) commented frequently on issues related to global warming in speeches and statements made to the press and company shareholders. He was an outspoken skeptic of the purported link between fossil energy emissions and rising global temperatures. He called for a "reality check" by countries committing to greenhouse gas control targets under the Kyoto Protocol. Raymond also maintained that development of alternative energy sources, such as wind and solar power, would be "inconsequential" relative to fossil fuels in meeting a projected 50% increase in global energy demand over the next quarter century. Chairman and CEO Rex Tillerson also holds the view that new technologies must be found to provide solutions to the world's energy challenges. For example, new technology will be critical in future oil and gas development to interpret seismic data and to drill in deepwater and arctic regions. Likewise, new technologies must be found to address climate change and provide applicable and affordable energy options in developing as well as developed countries.
Chief Environmental Officer	Sherri Stuewer, Vice President of Safety, Health and Environment, Safety, Health and Environment
Levels to CEO	1
Climate Change Executive	None identified. However, ExxonMobil employs a number of scientists with expertise on such issues who have made contributions to the Intergovernmental Panel on Climate Change (IPCC) and the development of greenhouse gas accounting standards within the petroleum industry.

ExxonMobil Corp.

NYSE: ***XOM***
Industry: ***Petroleum***

Management Execution

(continued)

Executive Committee

None identified.

While ExxonMobil does not have a formal executive committee on climate change, its operating companies formally report their performance to company headquarters at least annually on environmental matters, including greenhouse gas emissions.

Link to Executive Compensation

ExxonMobil says that environmental performance is a factor in the compensation of its top executives, plant managers and employees in environment-related positions.

Public Disclosure

Score: 5

Company Statement

In February 2006, ExxonMobil published a 20-page report titled Tomorrow's Energy, A Perspective on Energy Trends, Greenhouse Gas Emissions and Future Energy Options. It lays out the company's views on future energy trends and investments, management of the environment and renewable energy development. The report devotes one page to a discussion of climate change science. It says, "Human activities have contributed to these increased concentrations, mainly through the combustion of fossil fuels for energy use; land use changes (especially deforestation); and agricultural, animal husbandry and waste-disposal practices… While assessments such as those of the [Intergovernmental Panel on Climate Change] have expressed growing confidence that recent warming can be attributed to increases in [GHGs]… gaps in the scientific basis for theoretical climate models and the interplay of significant natural variability make it very difficult to determine objectively the extent to which recent climate change might be the result of human actions. These gaps also make it difficult to predict objectively the timing, extent and consequences of future climate change." The commentary concludes, "Even with many scientific uncertainties, the risk that [GHG] emissions may have serious impacts justifies taking action."

Securities Filings Statement

None identified.

Company Report

2004 Corporate Citizenship Repor

GRI Report

None identified.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 12

Savings Calculated by Company

Amount: 8,000,000 tonnes of CO_2 annually ***Scope:*** Global

ExxonMobil has established a Global Energy Management System (GEMS) that incorporates efficiency improvements and emissions reductions into its routine business operations. Changes introduced through GEMS are estimated to have reduced the company's energy costs by more than $500 million per year and associated CO_2 emissions by about 7 million tons per year.

Amount: 7,000,000 tonnes of CO_2 equivalent annually ***Scope:*** Nigeria

Since 1990, ExxonMobil and its predecessor companies have substantially reduced leaks, venting and flaring of methanel gas by capturing these emissions to use as fuel or by re-injecting the gas into the ground. In some locations, flaring has been reduced by 50 to 90 percent. In Nigeria, the company has announced plans eliminate flaring at operated facilities, saving more than 7 million metric tonnes of carbon dioxide equivalent emissions per year, equal to 5% of the company's worldwide GHG emissions. The project will be completed by 2008.

GHG Emissions Inventory

2004 Amount: 138,000,000 tonnes of CO_2e ***Region:*** Global
2000 Amount: 128,000,000 tonnes of CO_2e ***Region:*** Global

2004 Amount: 95 tonnes CO_2/megawatt-hour ***Region:*** Global (intensity rate)
2000 Amount: 110 tonnes CO_2/MWH ***Region:*** Global (intensity rate)

ExxonMobil began releasing annual GHG inventory data in 2002, with emissions data dating back to 2000. The company reported a 1% increase in its emissions in 2004 "due to throughput increases and more intense processing to meet clean-fuels demand."

Third Party Vertification

Yes. ExxonMobil told IRRC it has "retained a consultant to provide common external verification" for all of its "covered facilities in the European Union."

Reporting Protocol

American Petroleum Institute *Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Gas Industry* and IPIECA *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions*.

ExxonMobil Corp.

NYSE: ***XOM***
Industry: ***Petroleum***

Strategic Planning	***Score: 8***
Emissions Targets	ExxonMobil has endorsed the American Petroleum Institute's voluntary target to improve aggregate refinery energy efficiency by 10% in 2002-2012, reducing GHG intensity by a comparable amount.
GHG Emissions Trading	***Voluntary programs***—None identified. ***Government programs***—ExxonMobil operates about 40 facilities covered under the E.U. Emissions Trading Scheme. It says in its 2006 Energy Trends report that as a result of "internal actions," it expects to meet its obligations for controlling GHG emissions for 2005–2007 "without acquiring allowances through emissions trading."
Green Power	None identified. In the July 2005 issue of The Lamp, ExxonMobil's in-house magazine, then-Chairman Lee Raymond remarked that alternative energy sources "are not consequential on the scale that will be needed and they may never have a significant impact on the energy balance." He argued that even if alternative energy had double-digit growth rates, they would only supply 1% of the world's energy needs in 25 years' time. "I am more interested in staying focused on the 99 percent," he said.
Energy Efficiency	Since 1973, ExxonMobil has been installing cogeneration power plants that are nearly twice as efficient as traditional methods of producing power and steam separately to improve its energy efficiency and reduce GHG emissions. It now has interests in more than 80 cogeneration facilities in more than 30 locations worldwide with a capacity to provide about 3,300 megawatts of power. These facilities now supply more than 90% of ExxonMobil's power generating capacity at its refineries and chemical plants worldwide, reducing CO_2 emissions by more than 8 million tonnes annually. Cumulatively since 1973, ExxonMobil says that these plants have helped it achieve a 35% gain in energy efficiency at its refineries and chemical plants, saving about 205 million tons of CO_2 in aggregate.
Commercial Business	ExxonMobil is conducting research on advanced engines, such as the Homogeneous Charge Compression Ignition (HCCI), which would combine the efficiency of a high compression diesel engine with the lower emissions of a gasoline engine. The HCCI design could lead to a 30% improvement in fuel efficiency over today's diesel engines. ExxonMobil also is conducting research on hybrid systems that combine gasoline engines with electric motors, and fuel cells that combine hydrogen and oxygen in a chemical reaction to make electricity.
Global Climate and Energy Project	ExxonMobil is providing $100 million over 10 years to Stanford University's Global Climate and Energy Project, a long-term research program that is designed to accelerate the development of commercially viable energy technologies that can dramatically lower greenhouse gas emissions. ExxonMobil is joined by other major sponsors including General Electric, Schlumberger and Toyota. GCEP projects underway include an integrated assessment of technology options, studies of hydrogen production and utilization, advanced combustion system research, studies of geologic sequestration of carbon dioxide, assessments of hydrogen, wind and solar power, carbon dioxide capture and storage, and studies on hydrogen as an energy carrier.
Other funding	ExxonMobil has funded basic research on climate-related issues since 1980. ExxonMobil staff have published more than 40 papers in peer-reviewed journals. ExxonMobil has also supported the work of some of the nation's leading skeptics on climate change, some of whom claim that fears of global warming are overblown and that global warming may be beneficial to the planet and its inhabitants.

BP PLC

NYSE: ***BP***

Industry: ***Petroleum***

BP was the first major oil company to state publicly, in 1997, that the risks of climate change are serious and that precautionary action is justified. Since then, its business planning and long-term strategy has been focused on the need to stabilize atmospheric GHG concentrations, even as global energy use continues to grow. Group Chief Executive John Browne set initial targets to reduce BP's operational GHG emissions 10% below 1990 levels by 2010. It achieved that goal by 2001, and BP now aims to hold its emissions steady through 2012. It is focused mainly on additional energy efficiency gains and increased customer use of less carbon-intensive products, such as natural gas and renewables. Because use of BP products emits eight times more CO_2 than the processes that produce them, BP is focused on reducing its carbon emissions footprint. In 2005, BP established a new Alternative Energy business unit that plans to invest $8 billion in solar, wind, hydrogen and combined-cycle power generation technologies over the next decade. BP is one of the world's leading producers of solar panels.

Summary Score: 90

Company Information

BP is one of the world's largest integrated oil companies. It is the largest oil and gas producer in the U.S. and also a top refiner. It operates about 27,000 gas stations worldwide. BP also manufactures and markets petrochemicals, and has a growing presence in gas and power generation. Its operations span 100 countries. It had sales of $285.1 billion in 2004.

Contact Information

CEO / Chairman	Lord John Browne / Peter Sutherland
Contact	Tel: 44-20-7496-4000 • Web: www.bp.com
Address	1 St. James's Square London SW1Y 4PD United Kingdom

Board Oversight

Score: 9

Board Committee	Ethics and Environment Assurance Committee
Committee Chair	Dr. Walter Massey, President, Morehouse College
Actions Taken	This committee monitors management's handling of environmental issues, among other things. During 2004, the committee reviewed BP's greenhouse gas and other emissions and assessed management's performance in this area based on BP's external auditor's reports. BP's executive management is accountable to the board for its actions in managing climate change issues.

Management Execution

Score: 16

CEO Statement	In 1997 in a speech at Stanford University, Calif., BP Chief Executive Lord Browne broke ranks with other oil industry executives and said that BP accepted that the risks from climate change were potentially serious and that precautionary action was justified. "When BP started to put such measures into place about eight years ago," Browne recalled in a 2005 interview with the *Economist*, "other companies in our industry were incredulous. They regarded us as heretics for embracing an environmentally sound viewpoint." However, he observed, "today, almost all the leading oil companies have begun attempts to reduce their environmental impact," with many seeing the advantages of taking such steps and "striving to be seen as more environmentally sound than their competitors." Still, Browne conceded, "much more remains to be done," noting that "emissions of greenhouse gases are rising."
Chief Environmental Officer	Iain Conn, Group Executive Officer, Strategic Resources
Levels to CEO	0
Climate Change Executive	Iain Conn Five company representatives serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Lord Browne has management control over BP's strategy for climate change, articulating the company's position and meeting climate change leaders. Iain Conn has operational responsibility; he is an executive director on BP's board who reports to Browne. Greg Coleman, BP's group vice president for health, safety, security and the environment, reports to Conn and has line management accountability for BP's climate change policy he monitors performance across the BP Group. Others who report to Coleman who have responsibility at the corporate level for specific aspects of managing environmental and climate change issues, including: John Wells, vice president, environment; Chris Mottershead, distinguished advisor, energy and the environment;

(continues)

BP PLC

NYSE: ***BP***
Industry: ***Petroleum***

Management Execution	*(continued)*
Executive Committee (continued)	Mike McMahon, senior advisor, climate change; Kevin Ball, director, energy efficiency; Mark Akhurst, manager, product emissions; Mark Proegler, director, emissions markets group; and Gardiner Hill, manager group environmental technology. Each BP business segment also has specialists with specific climate change responsibilities.
Link to Executive Compensation	BP says that annual bonuses for executives in 2005 were based in part on "strategic metrics and milestones," including environmental performance.

Public Disclosure	***Score: 13***
Company Statement	*From the company website:* On top of its home page, BP has a link for viewers on how lifestyle choices affect carbon emissions, saying "It's time to start a low-carbon diet." BP also has a nine-part statement on climate change on its website. In the Overview, it says, "There is an emerging consensus that climate change is, at least in part, linked to the production and consumption of carbon based fuels. As a major supplier of these fuels, it's only right that we play a part in finding and implementing solutions to one of the greatest challenges of this century."
Securities Filings Statement	*Excerpt from Form 20-F:* "The impact of the Kyoto agreements on global energy (and oil and gas) demand is expected to be small." In assessing performance on these issues, it looks at both its operational and product emissions. Among other moves, it is considering "market mechanisms to allow optimum utilization of resources to meet the national Kyoto targets" implemented by individual countries and by the European Union. "The relative success of these systems will determine the extent to which alternative fiscal or regulatory measures may be applied." For example, "some E.U. member states have indicated that they require energy product taxes to enable them to meet their Kyoto commitments within the [E.U.] burden sharing agreement."
Company Report	*BP Sustainability Report 2004*
GRI Report	See above (in accordance).
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 23***
Savings Calculated by Company	***Amount:*** 10% reduction in annual CO_2e emissions ***Scope:*** Global ***Time frame:*** 1990–2001 BP set a target in 1998 to reduce its operational GHG emissions 10% below 1990 levels by 2010; it achieved this goal by the end of 2001. Most of the reductions were achieved through energy efficiency improvements and reductions in venting and flaring of natural gas. An additional 4 million tonnes of savings was achieved mainly through further energy efficiency improvements in 2001-2004.
GHG Emissions Inventory	***2004 Amount:*** 81,700,000 tonnes of CO_2e ***Region:*** Global ***1990 Amount:*** 90,100,000 tonnes of CO_2e ***Region:*** Global Figures reflect BP's direct equity share from owned and operated facilities, including flaring and venting of natural gas, and purchased electricity. BP tracks emissions intensity rates from exploration and production (24 tonnes of CO_2e/million barrels of oil equivalent in 2004), petroleum refining (940 tonnes/per thousand barrels per day) and petrochemicals (480 tonnes/thousand tonnes of petrochemicals produced). In 2001–2004, intensity rates improved 5% for exploration and production, and 8% for each of the other categories.
Carbon Footprint	BP has calculated emissions derived from customer use of its products since 2002. It estimates that emissions from hydrocarbon products sold by BP totaled 1.376 billion tonnes of CO_2e in 2004, equal to about 5.5% of global emissions of CO_2 from the combustion of fossil fuels worldwide. Because of the high level of BP traded sales included in this estimate, BP has also estimated its product emissions based on hydrocarbons produced or processed by BP's operations, which amount to close to 600 million tonnes for 2004 (which provides a better measure for comparability against other producers). BP is trying to reduce its carbon footprint through its Product-Enabled Emissions Reductions program (PEERs), which encourages customers to use its energy products more efficiently.
Third Party Vertification	Yes. After baseline audits of 1990 and 1998 emissions, BP received an unqualified audit opinion from KPMG and DNV on its equity share direct GHG emissions in 2000–2004.

BP PLC

NYSE: ***BP***
Industry: ***Petroleum***

Emissions Accounting	*(continued)*
Reporting Protocol	BP was active in the development of the GHG Protocol and played a leading role in the development of the IPIECA *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions*.

Strategic Planning	***Score: 29***
Emissions Targets	***Baseline year:*** 1990 and 2002 ***Target year:*** 2008 and 2012 ***Region:*** Global ***Amount:*** Not to exceed 80,500,000 tonnes of annual CO_2e emissions In 1998, BP set a target to reduce its GHG emissions 10% below 1990 levels by 2008, a target it reached in 2001. In 2002, BP set a new target to hold its net emissions stable (allowing for yearly fluctuations) through 2012. BP expects half of its emissions savings to come from continued work on energy efficiency and flaring reductions; the other half will come from actions and credits through the products it sells.
GHG Emissions Trading	***Voluntary programs***—BP worked with Environmental Defense to establish an internal GHG trading program that operated from 1999-2001. BP helped develop the U.K. Emissions Trading Scheme, launched in 2002. It has exceeded initial targets to reduce emissions through 2006. In exchange, BP has received incentive payments from the U.K. government and a reduction in its U.K. Climate Change Levy. ***Government programs***—About 25% of BP's global emissions are subject to the E.U. Emissions Trading Scheme. It is using a regional, integrated approach to optimize compliance and value for the BP sites subject to controls. BP believes that emissions trading under the Kyoto Protocol should be extended as part of a wider global drive to reduce emissions. BP has an emissions markets group to manage all of its trading activities, and has set up a trading desk in its integrated supply and trading group, bringing together environmental, technical and business professionals with experience in the oil, gas and power markets.
Green Power	In 2005, BP announced plans to invest $8 billion over 10 years in BP Alternative Energy. BP is one of the world's largest producers of solar power. (See Commercial Business.)
Energy Efficiency	BP says that further energy efficiency improvements are key to meeting its GHG control targets. It has 4,100 MW of installed cogeneration capacity, which saves BP around 6 million tonnes of CO2 a year compared to sourcing electricity from less efficient local or national grids. In 2004, BP launched a new, five-year $350 million energy efficiency program.
Commercial Business: ***Green power***	BP Solar had sales of more than $400 million in 2004 and turned a profit for the first time, after 30 years in the market. In 2004, BP announced that it would more than double its solar power production from 90 megawatts annually to around 200 MW by 2006. BP has a 69% interest in a 22.5 MW Dutch wind farm, along with Chevron (31%), at the companies' jointly-owned Nerefco oil refinery near Rotterdam. BP says it is focused on developing wind farms at other BP refineries and petrochemical sites.
Natural gas	In its move to sell more products with less carbon, BP expanded energy sales of natural gas by 47%, compared to just 5% growth in oil-based products, in 2001–2004. (Solar energy sales grew 78% over the period.) In 2004, natural gas accounted for 61% of the energy BP sold, up from 52% in 2001.
Hydrogen	BP is in partnership with ConocoPhillips and Royal Dutch/Shell to develop the world's first industrial scale project to generate electricity using hydrogen manufactured from natural gas to create "decarbonized fuels," reducing CO_2 emissions by around 90%. A project in the Aberdeen area of Scotland would take natural gas from North Sea fields and convert it to hydrogen and CO_2. The hydrogen then would be used as fuel in a power station, while the CO_2 would be transported by pipeline and injected in an offshore field to enhance oil recovery and long-term geological storage. Startup is planned for 2009. BP and Edison International announced plans in 2006 to build a $1 billion hydrogen-fueled power plant in southern California that would generate 500 MW of electricity. The plant would be the first in the U.S. to produce hydrogen from petroleum coke. About 90% of the CO_2 would be captured, stored and used to enhance oil recovery. Pending a final investment decision by 2008, startup is planned for 2011.
Carbon capture and storage	In 2000, BP established the Carbon Mitigation Initiative at Princeton University (along with Ford Motor) to conduct basic research on carbon capture, storage and conversion to a hydrogen-based economy. BP is participating in a project with Sonatrach, Algeria's national energy company, and Statoil, to capture and store 1 million tonnes of CO_2 annually in a depleted underground natural gas reservoir in the Salah desert of Algeria.

Royal Dutch Shell plc

NYSE: ***RDS.A / RDS.B***
Industry: ***Petroleum***

Royal Dutch Shell has set a long-term target to hold its GHG emissions from its facilities at least 5% below 1990 levels through 2010 (on an equity basis), even while its business grows. Shell has a climate change advisor at the group level and personnel assigned within each of its business groups to address climate-related issues and manage the company's carbon exposure. It has extensive experience with GHG emissions trading, first internally and now through several government-run programs. Since 1998, Shell has invested more than $1 billion to develop alternative energy technologies, and has established Shell Renewables and Shell Hydrogen as formal business units. It reports extensively on its climate change and GHG control programs through a sustainability report. In 2004, it made an estimate of its carbon footprint.

Summary Score: 79

Company Information

Royal Dutch Shell explores, produces and sells oil and gas, generates electricity and provides energy efficiency advice. It also produces and sells petrochemicals. The company operates in more than 140 countries and territories. It had sales of $337.5 billion in 2004.

Contact Information

CEO	Jeroen van der Veer
Chairman (non executive)	Aad Jacobs
Contact	Tel: 44-(0)20-79341234 • Web: www.shell.com
Address	Carel van Bylandtlaan 30 2596 HR The Hague The Netherlands

Board Oversight

Score: 7

Board Committee	Social Responsibility Committee
Committee Chair	Wim Kok, former Dutch Prime Minister
Actions Taken	The Social Responsibility Committee assists the board in reviewing the policies and conduct of the company, including its Health, Safety and Environment Policy and major issues of public concern, including climate change. The committee also makes policy recommendations to the board, advises on the design of internal control procedures and production of external reports.

Management Execution

Score: 15

CEO Statement	*At a 2001 oil summit:* "The oil and gas industry cannot ignore climate change… climate change is both an important challenge and a major business opportunity… Shell welcomes the commitment made at Kyoto to promote the research, development and increased use of new and renewable forms of energy and to promote policies that limit or reduce emissions of [GHGs]… Events in the U.S. make it even more imperative that, as an industry, we remain resolute in our pledge to deliver on actions to control [GHG] emissions. Even if Kyoto would be 'so-called dead', our Shell reduction policy and targets will stay alive."
Chief Environmental Officer	Lex Holst, Vice President, Health, Safety & Environment
Levels to CEO	1
Climate Change Executives	Graeme Sweeney, CEO of Shell Renewables and President of Shell Hydrogen, and David Hone, Group Climate Change Advisor. Shell announced in 2005 that Sweeney would take executive responsibility for all CO_2-related technology development and implementation. Hone, as climate change adviser, follows development of the issue externally; advises on a response strategy for the group; acts as a catalyst internally such that group businesses develop the necessary capacity to deal with the issue; and works with government and other external organizations to ensure that the group perspective on the issue is considered and understood. Hone also takes strategy advice to the CEO and Executive Committee. He reports through Holst, the chief environmental officer, to the head of corporate affairs (who in turn reports directly to the CEO). Hone and five other company representatives serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.

Royal Dutch Shell plc

NYSE: ***RDS.A / RDS.B***
Industry: ***Petroleum***

Management Execution

(continued)

Executive Committee

Within each of its business groups, Shell has various people involved in climate change related matters, depending on the nature of the business and its exposure to carbon pricing over the near and long term. It says typical roles include: compliance officers for emissions trading systems, trading team members, research and development leaders; and environmental advisers. Each business also has a senior health, safety and environmental manager, who incorporates the issue of climate change for the business as a whole. On major new projects, particularly those with a potential high future carbon exposure, Shell appoints a climate advisor from the early stages of the project.

Link to Executive Compensation

Shell's executive directors and its CEO have 20% of their annual bonus awards based on measures of sustainable development. Shell told IRRC in 2003 that attainment of GHG targets is a factor in compensation of top executives and plant managers.

Public Disclosure

Score: 7

Company Statement

From company website:

"Shell shares the widespread concern that 'the emission of [GHGs] from human activities is leading to changes in the global climate… Action is required now to lay the foundation for eventually stabilizing [GHG] concentrations in the atmosphere in an equitable and an economically responsible way… It is time to pursue stable, market-based policies that help energy users and suppliers pursue innovative energy solutions.' Shell's measures to manage future emissions include:

- Measuring its GHG emissions worldwide, subject to independent assurance.
- Implementing aggressive new energy conservation programs.
- Ending continuous operational flaring by 2008.
- Developing new technologies to capture and store carbon dioxide.
- Taking account of future GHG emission costs in all new investments.
- Being a leader in trading GHG allowances in emerging international markets.

"Shell also aims to help its customers reduce their emissions by:

- Promoting natural gas as a cleaner alternative for electricity, heating and transport.
- Offering alternative energy options such as solar, hydrogen and wind power.
- Providing lower emission fuels and the fuels needed by lower emission engines.
- Using innovative technology to create lower carbon products and services."

Securities Filings Statement

None identified.

Company Report

The Shell Report 2004: Our Progress In Contributing to Sustainable Development

GRI Report

See above (in accordance).

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 23

Savings Calculated by Company

Amount: 20,000,000 tonne reduction in annual CO_2e emissions ***Scope:*** Entity level
Time frame: 1990–2002

Shell made a commitment in 1998 to reduce its GHG emissions by 10% from the same set of facilities, operated from 1990–2002. Shell exceeded that goal by achieving a 17.5% reduction, cutting 20 million tonnes of annual CO_2 equivalent emissions. Shell eliminated continuous venting of methane gas during oil production, reduced continuous flaring of gas during oil production, and raised the energy efficiency of its refineries, chemical plants and production. Without these measures, Shell estimates that other business changes would have caused annual emissions to rise by 23%, reaching 140 million tonnes a year by 2002.

GHG Emissions Inventory

2004 Amount: 112,000,000 tonnes of CO_2e ***Region:*** Global
1990 Amount: 123,000,000 tonnes of CO_2e ***Region:*** Global

These inventory figures include company-operated as well as company-owned facilities.

Royal Dutch Shell plc

NYSE: ***RDS.A / RDS.B***
Industry: ***Petroleum***

Emissions Accounting	*(continued)*
Carbon Footprint	In 2004, Shell calculated emissions derived from customer use of its products in addition to emissions from its own manufacturing operations. (In this case, emissions were measured on an equity ownership basis.) Shell estimated that customer use of its products in 2002 resulted in an estimated 763 million tonnes of CO_2 emissions. When combined with manufacturing emissions in 2002, this was equivalent to 3.6% of the CO_2 emitted from the combustion of fossil fuels worldwide, according to Shell.
Third Party Vertification	Yes, by KPMG and PricewaterhouseCoopers.
Reporting Protocol	GHG Protocol, as adapted by Shell.

Strategic Planning	***Score: 27***
Emissions Targets	***Baseline year:*** 1990 ***Target year:*** 2010 ***Region:*** Global ***Amount:*** Not to exceed 117,000,000 tonnes of CO_2e (on an equity basis) Emissions from the same set of facilities are to be held 5% below 1990 levels, despite operating growth.
GHG Emissions Trading	***Voluntary programs***—Shell has been active in the development of market mechanisms, such as the Clean Development Mechanism (CDM) to trade GHG emissions and support their use: • In 1999, Shell developed a pilot CDM screening process and used it to identify potential projects. • In 2000, Shell designed and implemented a pilot internal emissions trading system, which has since been replaced by involvement in external systems, such as those in Denmark, the United Kingdom (beginning in 2002) and throughout Europe (beginning in 2005). • In 2001, Shell created an environmental products trading team led by an experienced emissions trader, which has global responsibility for Shell's use of the Kyoto mechanisms. • In 2003, Shell Trading and Nuon executed the first trade of EU carbon dioxide allowances. ***Government programs***—In 2005, 28 of Shell's facilities, covering about a fifth of its worldwide operational emissions, began participating in the E.U. Emissions Trading Scheme.
Green Power	Shell Renewables is active in wind energy and solar photovoltaics. Other divisions are involved in development of biofuels, geothermal energy and hydrogen. (See Commercial Business.)
Energy Efficiency	Shell continues to reduce continuous flaring of gas during oil production, and its efforts to raise energy efficiency at its refineries, chemical plants and production facilities have resulted in steady improvements in energy efficiency as measured by energy used per unit of output. Its exploration and production facilities continue to require more energy to produce the same amount of output, however, reflecting the more difficult nature in finding and exploiting oil and natural gas resources.
Commercial Business: ***Wind power***	Shell WindEnergy was formed in 2001 and focuses on development, ownership and operation of large-scale wind farms. It has more than 350 megawatts of installed capacity and is expected to reach 500 MW in 2007. Shell also has announced plans to explore wind energy developments in China in partnership with Guohua Energy Investment Corp. of China Shenhua Group, a national energy supplier.
Solar power	Shell decided to divest its crystalline silicon solar business activities to SolarWorld AG in 2006; it had an annual production of about 80MW. Shell believes that non-silicon based, "thin-film" technologies such Copper Indium Diselenide (CIS) are more likely to become competitive with retail electricity in coming years. It has an agreement with glass and building materials manufacturer Saint-Gobain to explore CIS technology and consider joint development.
Biofuels	In partnership with Iogen of Canada, Shell is producing cellulose-based ethanol fuels from plant waste. The Iogen process produces fuel that can be used in today's cars and cut CO_2 lifecycle emissions by 90% when compared with conventional fuels. Shell Canada has been working with Iogen to develop a viable commercial framework for a facility in Canada. Shell recently announced an agreement with Volkswagen and Iogen to explore the economic feasibility of producing cellulose ethanol in Germany. These projects complement Shell's existing partnership with CHOREN Industries of Germany. CHOREN has a patented gasification process that converts biomass—such as woodchips—into ultra-clean synthetic gas that can then be converted for use in diesel cars through Shell's gas- to-liquids technology. CHOREN is preparing construction for the world's first commercial biomass-to-liquids facility in Freiberg, Germany.
Hydrogen	Shell Hydrogen was set up in 1999 to pursue and develop business opportunities related to hydrogen and fuel cells.

Total SA

NYSE: ***TOT***
Industry: ***Petroleum***

Total's chairman and executive committee lead the company's oversight of climate change. Total has set and exceeded goals to reduce the intensity rate of its GHG emissions from exploration and production activities relative to 1990 levels. New targets are under development for 2010. The company's R&D investments in new technologies evaluate the potential costs of GHG emissions. The company created a centralized organization to trade GHG emissions in 2004. Nearly half of Total's GHG emissions come from facilities subject to the E.U. Emissions Trading Scheme. Total is involved in solar, wind, gas-to-liquids and carbon sequestration technologies as emerging commercial businesses. It produces an annual sustainability report to report on its progress.

Summary Score: 62

Company Information

Total is the world's fourth-largest oil and gas company, and is a chemicals manufacturer, operating in more than 130 countries. In addition to finding, producing, refining, distributing and marketing oil and natural gas, Total manufactures petrochemicals, fertilizers, vinyl products and other specialty chemicals. It had sales of $166.2 billion in 2004.

Contact Information

CEO / Chairman	Thierry Desmarest
Contact	Tel: 33.1.47.44.45 • Web: www.total.com
Address	Two place de la Coupole Courbevoie La Defense 6, France 92400 France

Board Oversight

Score: 6

Board Committee	Chairman Thierry Desmarest oversees Total's response to climate change and monitors the issue closely.
Actions Taken	The board of directors reviews policies developed by the executive-level Risk Committee and Environmental Working Group on Greenhouse Gases, which are responsible for monitoring and controlling GHG emissions within Total's business units.

Management Execution

Score: 15

CEO Statement

From company website:

Chairman Desmarest has made several public statements in recent years, including these on its website:

- "Climate change is a global issue that can only be resolved if the biggest emitting countries cooperate. The Kyoto Protocol is a first step, but only covers one-third of emissions. Now we have to develop a new framework acceptable not only to the United States, but also to the biggest economies in transition, especially India and China, who don't want to sacrifice their growth."
- "Energy efficiency—consuming less energy for the same result—could be a critical improvement driver. The potential savings are considerable and higher energy prices are a strong incentive."
- "Another auspicious area for strengthened international cooperation is research and innovation. There's still a lot to do to develop technologies that generate fewer emissions, especially in the transportation segment, and to capture carbon dioxide emitted by large industrial facilities and sequester it in geological reservoirs. We're closely involved in joint programs in these areas."

Chief Environmental Officer	Jean-Michel Gires, Vice President, Sustainable Development and Environment
Levels to CEO	2
Climate Change Executives	Bruno Weymuller, President, Strategy and Risk Assessment. Weymuller is a member of Total's Executive Committee who reports to Chairman Demerest. Jean-Michel Gires reports to Weymuller. Brigitte Poot and Luc De Marliave work full-time on issues related to climate change, and report to Gires.

Total SA

NYSE: ***TOT***
Industry: ***Petroleum***

Management Execution	*(continued)*
Executive Committee	Environmental Working Group on Greenhouse Gases. Bridget Poot and Luc De Marliave steer a network of managers who are responsible for monitoring and controlling GHG emissions within Total's business units. In addition, Total has a Risk Committee comprised of representatives from Total's strategy, finance, insurance, legal, environment, safety and transport departments, which assesses all investment projects for climate change risk. This committee reports its findings to Total's Executive Committee.
Link to Executive Compensation	Poot and De Marliave, above, have their compensation tied directly to Total's performance on climate change.

Public Disclosure	***Score: 12***
Company Statement	*From 2004 Corporate Social Responsibility Report:* Total says, "helping to combat climate change is one of the five main challenges in responding to Total oil and gas company responsibilities." The statement goes on to explain how Total is managing and reducing its GHG emissions, developing CO_2 capture and sequestration solutions, enhancing the energy efficiency of its processes and encouraging its customers to use energy more efficiently.
Securities Filings Statement	*Except from Form 20-Fs:* Total provides extensive summary information in its securities filings on its commitments to reduce GHG emissions, compliance plans under the Kyoto Protocol and the E.U. Emissions Trading Scheme, and development plans for renewable energy. It also says it evaluates the costs of GHG emissions in making R&D investments in new technologies.
Company Report	*Sharing Our Energies - Corporate Social Responsibility Report 2004*
GRI Report	See above.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 13***
Savings Calculated by Company	***Amount:*** 23% decrease in CO_2e emissions intensity rate ***Scope:*** Entity-level (E&P) ***Time frame:*** 1990–2004 These savings in exploration and production emissions were achieved mainly through reductions in natural gas venting and flaring. ***Amount:*** 39% decrease in CO_2e emissions intensity rate ***Scope:*** Entity-level (refining) ***Time frame:*** 1990–2004 These savings in refining were achieved mainly through energy efficiency improvements. ***Amount:*** 54% decrease in CO_2e emissions intensity rate ***Scope:*** Entity-level (chemical) ***Time frame:*** 1990–2004 These savings in chemical operations were achieved mainly through energy efficiency improvements. Total also sells fuels and lubricants that help consumers burn gasoline more efficiently and with fewer emissions. It is also participating in several carbon capture and sequestration research programs.
GHG Emissions Inventory	***2004 Amount:*** 69,400,000 tonnes of CO_2e ***Region:*** Global ***2002 Amount:*** 66,700,000 tonnes of CO_2e ***Region:*** Global Total developed new group-wide reporting guidelines in 2004 to cover more than 80% of its owned and operated sites, including all exploration & production and gas & power sites, all refineries and most marketing sites. The expanded inventory resulted in an increase in reported emissions in 2004.
Third Party Vertification	Total's reporting is in line with the recommendations of Ernst & Young and Salustro-Reydel (KPMG Group). Reporting began on a pilot basis in 2004 and verification started annually in 2005.
Reporting Protocol	IPIECA *Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions*.

Total SA

NYSE: ***TOT***
Industry: ***Petroleum***

Strategic Planning		***Score: 16***
Emissions Targets	***Baseline year:*** 1990 ***Target year:*** 2005 ***Region:*** Global (intensity rate) ***Amount:*** 30% decrease in CO_2e emissions intensity from exploration and production ***Baseline year:*** 1990 ***Target year:*** 2005 ***Region:*** Global (intensity rate) ***Amount:*** 20% decrease in CO_2e emissions intensity from refining operations Total set these targets in 2001 and reached or exceeded them in 2004, a year ahead of schedule. Total will identify and quantify further opportunities to reduce GHG emissions in 2006–2010. In its upstream activities, Total says that it will focus on continuing to reduce gas flaring and developing CO_2 re-injection technologies. Downstream, it says it will work on improving energy efficiency by installing more cogeneration facilities. In chemicals manufacturing, it will work on reducing emissions of nitrous oxides and improving energy efficiency.	
GHG Emissions Trading	***Voluntary programs***—Total created a centralized organization to trade GHG emissions in 2004. ***Government programs***—Total says that 50 of its European facilities are covered by the E.U. Emissions Trading Scheme. These facilities account for nearly 50% of Total's global GHG emissions. Total has begun trading under the scheme.	
Green Power: ***Solar***	Since 1983, Total has partnered with Électricité de France in Total Énergie, a photovoltaic systems company that is taking part in major decentralized rural electrification programs, equipping 52,000 homes in Morocco and South Africa with solar power. In 2004, the joint venture began building a photovoltaic solar panel production plant in Toulouse, France. Total also is a partner in Photovoltech, created in 2001 to produce multicrystalline silicon-based photovoltaic cells and modules, with 80 megawatts of production capacity projected in 2006.	
Wind	Total's Mardyck wind farm, near Dunkirk, France, was inaugurated in November 2003 with 12 MW of capacity. Its purpose is to test different types of wind turbines to later develop larger facilities, both on shore and offshore. Total also has received approval for a 13.5 MW project in Spain and has other wind projects pending.	
Energy Efficiency	Total regards energy efficiency as a key component of its GHG reduction strategy. This includes implementation of cogeneration technologies in refining and chemical manufacturing operations, and new transportation fuels.	
Commercial Business: ***Natural gas***	Total has a stake in nine liquefied natural gas projects. It is also a partner with Battelle subsidiary Velocys and others to develop a new technology that uses microchannel reactors and more active catalysts to produce the synthesis gas used in the Fischer-Tropsch process to promote enhanced development of natural resources and a significant reduction in GHG emissions. Total and a Japanese consortium are developing a new low-emissions fuel derived from natural gas that proponents say could replace diesel and liquefied natural gas. Gas dimethylether, or DME, can be made from renewable resources or fossil fuels, produces few GHG emissions and may be used for diverse purposes, including automobile fuel, cooking gas and powering small- to medium-sized power plants. DME was discovered by Japanese research.	
Biodiesel	Vegetable Oil Methyl Esters (VOME), also known as biodiesel, is blended in low concentrations into diesel fuel at six Total refineries in France. Total purchases nearly 75% of annual French VOME output, which stood at 317,000 tonnes in 2004. Total also blends biodiesel at two refineries in Germany, and has biofuel production plants in Africa and South America under discussion.	

Chevron Corp.

NYSE: ***CVX***
Industry: ***Petroleum***

Chevron incorporates GHG assessments into its strategic planning process. The board's Public Policy Committee reviewed the company's climate change policy in 2002, and the chairman regularly reviews its implementation. Chevron set a target in 2004 to hold its GHG emissions flat, mainly through improvements in energy efficiency and reductions in flaring and venting of natural gas. Chevron has established a Carbon Markets Team to review its trading opportunities in emerging carbon markets. In 2004, Chevron launched an expanded strategy to integrate renewable energy applications into its portfolio of energy products. With the acquisition of Unocal, it is the world's largest geothermal energy provider. It is also involved in gas-to-liquids production and carbon sequestration programs. Through Chevron Technology Ventures, it invests more than $100 million a year in low-carbon and carbon-free technologies.

Summary Score: 57

Company Information

Chevron is the second-largest U.S. integrated oil company. It acquired Texaco in 2001 and Unocal in 2005. It owns interests in chemicals manufacturing and power production, and has 19,000 gas stations under the Chevron, Texaco and Caltex brands. It had sales of $142.9 billion in 2004.

Contact Information

CEO / Chairman	David J. O'Reilly
Contact	Tel: 925-842-1000 • Web: www.chevron.com
Address	6001 Bollinger Canyon Rd. San Ramon, CA 94583 USA

Board Oversight

Score: 7

Board Committee	Public Policy Committee
Committee Chair	Sam Nunn, Senior Partner, King & Spalding, and former U.S. Senator (1972–1996)
Actions Taken	The Public Policy Committee reviewed Chevron's climate change policy in April 2002. It began to factor GHG gas assessments into all major projects and strategic business planning in 2005.

Management Execution

Score: 10

CEO Statement

From 2003 Corporate Responsibility Report:

"One of the greatest challenges our industry faces is the widespread view that energy development is at odds with a healthy environment." Of particular concern, O'Reilly said, is climate change. He noted that Chevron is "working to improve [its] efficiency and reduce emissions of greenhouse gases." He added that in 2003, Chevron initiated its first third-party verification of its GHG emissions, "which has enabled us to set an emissions goal for 2004 with the assurance that the goal is based on sound and robust baseline data."

O'Reilly also issued an "open letter" in July 2005, as part of a new advertising campaign, to "launch a debate" on important issues facing the industry, including energy supply, the environment and the roles of alternative energy and technology. (The letter does not mention climate change specifically.) "The era of easy oil is over," O'Reilly said. "What we all do next will determine how well we meet the energy needs of the entire world in this century and beyond." An accompanying website calls upon "scientists and educators, politicians and policy-makers, environmentalists and leaders of industry... to be part of reshaping the next era of energy" and to engage in a dialogue on issues facing the energy industry.

Chief Environmental Officer	Rhonda Zygocki, Vice President, Health, Environment and Safety
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	Carbon Markets Team Chevron established this team to review trading opportunities in the E.U. Emissions Trading Scheme and other emerging carbon markets to maximize its earnings of credits. Chevron has also incorporated a greenhouse gas review into its company-wide "Operational Excellence Management System."
Link to Executive Compensation	Chevron says that each executive's performance is linked to "targets related to business operations (e.g., refinery throughput, production volumes, product quality, safety, environmental performance, etc.)."

Chevron Corp.

NYSE: ***CVX***
Industry: ***Petroleum***

Public Disclosure

Score: 5

Company Statement

From 2004 Corporate Responsibility Report:

Chevron reviews its strategy to deal with global climate change, which aims at:

- "reducing emissions of greenhouse gases and increasing energy efficiency;
- investing in research, development and improved technology;
- pursuing business opportunities in promising, innovative energy technologies;
- supporting flexible and economically sound policies and mechanisms that protect the environment."

The statement goes on to discuss Chevron's targets for reducing GHG emissions, investigating carbon capture and storage technologies, and investing in renewables and gas-to-liquids technologies. The statement also addresses Chevron's view of GHG regulations and prospects for emissions trading. It says that about 10% of its GHG emissions are in countries subject to GHG emissions targets under the Kyoto Protocol. It says it respects those countries' decisions to ratify the treaty and "continues to develop ways to reduce our own emissions and help our customers and business partners reduce theirs."

Securities Filings Statement: None identified.

Company Report: *2004 Corporate Responsibility Report*

GRI Report: See above.

Carbon Disclosure Project: Answered questionnaire, provided disclosure.

Emissions Accounting

Score: 17

Savings Calculated by Company

Amount: 1,000,000 tonne reduction in CO_2e emissions ***Scope:*** Entity level
Time frame: 2004

Chevron achieved these savings through energy efficiency upgrades and reductions in flaring and venting of natural gas. Though refinery emissions rose slightly because of increased refinery throughput, Chevron more than offset this increase through company-wide energy efficiency improvements and a decrease in production emissions, primarily due to divestitures.

Amount: : 2,000,000 tonne reduction in CO_2e emissions (estimated) ***Scope:*** Project level
Time frame: Annual

Chevron has switched to natural gas to generate electricity and steam at the Wafra oil field in Kuwait, Kern River oil field in California and Duri oil field in Indonesia. For the Duri project, Chevron is a joint venture partner in Caltex Pacific Indonesia, which operates the Duri field, and Amoseas Indonesia, which installed a $190 million, 300-megawatt cogeneration plant in 2001 to enhance oil recovery at the Duri field. Chevron also is a partner in a new 700-megawatt power plant in Thailand that will use natural gas instead of high-sulfur coal to generate power, thereby reducing GHG emissions. In the U.S, Chevron reports project GHG savings with the U.S. Energy Information Administration under the Section 1605(b) program.

GHG Emissions Inventory

2004 Amount: 62,500,000 tonnes of CO_2e ***Region:*** Global
2002 Amount: 63,400,000 tonnes of CO_2e ***Region:*** Global

These inventory figures exclude Chevron's interests in Chevron Phillips Chemical Company, Dynegy Inc. and Caltex Australia Limited. Chevron does not have full operational control over these entities, nor do they follow Chevron's inventory protocol or a compatible protocol. Of the 2004 emissions, 61% were attributable to combustion, 24% were due to flaring and the remaining 15% came from other sources.

Third Party Vertification: Yes. KPMG/URS has audited the quality of Chevron's GHG emissions data since 2002. The 2004 audit pointed out some weaknesses in Chevron's data collection and management systems, but validated the strengths of its inventory system overall. Since then, Chevron says it has been improving its processes for collecting and managing data, as well as conducting additional training of staff.

Reporting Protocol: In 2002, Chevron launched a new software inventory program called SANGEA™ Energy and Emissions Estimating System. The software is an automated, electronic data management system for gathering GHG emissions and energy usage data from energy company operations. Chevron used the software in 2002 to compile the first, comprehensive GHG inventory after its merger with Texaco. Chevron donated the software to the American Petroleum Institute, which now shares it with other members of the energy industry free of charge.

Chevron Corp.

NYSE: ***CVX***
Industry: ***Petroleum***

Strategic Planning

Score: 18

Emissions Targets	***Baseline year:*** 2004 ***Target year:*** 2005 ***Region:*** Global ***Amount:*** Not to exceed 60,300,000 tonnes of CO_2e annually A target set for 2006 will include emissioins from legacy assets related to the purchase of Unocal. Chevron is trying to hold its overall GHG emissions flat and reduce its GHG emissions per barrel of oil produced by continually improving the energy efficiency of its operations. It says this presents a challenge as its oil fields age, because more energy is needed to produce the same amount of oil, resulting in more CO_2.
GHG Emissions Trading	***Voluntary programs***—Chevron says several of its projects "have the potential" to generate credits through the Clean Development Mechanism of the Kyoto Protocol. In particular, it points to its geothermal power project in Indonesia as a candidate. It says that its subsidiary is "seeking approvals by appropriate Indonesian and international authorities for tradable credits related to the planned expansion" of the project. ***Government programs***—Chevron has established a Carbon Markets Team to review trading in the E.U. Emissions Trading Scheme and other emerging carbon markets.
Green Power	Through its venture arm, Chevron Technology Ventures, Chevron invests more than $100 million per year in low-carbon and carbon-free technologies. Chevron expanded its strategy to integrate renewable energy applications into its portfolio of products in 2004. Its strategy is focused mainly on wind and geothermal energy projects. It is also evaluating opportunities in solar energy. With the acquisition of Unocal, Chevron has become the largest producer of geothermal energy in the world, with facilities generating more than 800 MW in Indonesia and the Philippines. It also has a 31% interest in a 22.5 MW Dutch wind farm, along with BP (which has a 69% interest), at the companies' jointly-owned Nerefco oil refinery near Rotterdam. Chevron has installed 500 kilowatts of photovoltaic power at its oil field operations in California's San Joaquin Valley, making it one of the largest U.S. photovoltaic installations.
Energy Efficiency	Chevron continues to work to improve its energy efficiency and to reduce flaring and venting. (See Emissions Accounting for more information.) In addition, Chevron Energy Solutions provides government, education, and other institutions and businesses with projects that conserve energy and reduce GHG emissions. The division has 300 employees and had $200 million in revenues in 2004.
Commercial Business: ***Gas-to-liquids***	Chevron is developing gas-to-liquids fuel from natural gas that is of significantly higher quality and much cleaner burning than diesel derived from crude oil. In 2000, Chevron established Sasol Chevron, a 50-50 joint venture with South African energy firm Sasol, which combines technologies from both companies to produce clean premium grade fuels. Sasol Chevron is providing management and technical support for plants in Qatar and Nigeria, and may establish production plant in Australia.
Carbon capture and storage	Chevron is participating in the CO_2 Capture Project, a coalition of eight major energy companies, co-funded by the U.S. DOE, the European Union and the Norwegian government. Chevron also takes part in the Carbon Sequestration Leadership Forum, consisting of 21 national governments and intergovernmental bodies formed to develop and deploy carbon sequestration technology.
Battery technologies	Chevron and Ovonic Battery Company, a subsidiary of Energy Conversion Devices, formed a partnership called Cobasys to bring Nickel metal hydride technology systems into widespread commercial production. These advanced battery systems are used in electric and hybrid-electric vehicles. See also Green Power and Energy Efficiency.

About The Authors

Andrew Logan coordinates Ceres' work with the oil and insurance sectors. Before joining Ceres, Andrew worked with Bain & Company, a leading management consultancy, where he developed strategy for companies in the finance, e-commerce, manufacturing, retail and media sectors, and presented his results to senior management and corporate boards. Andrew graduated summa cum laude from Amherst College.

David Grossman is an attorney and consultant. His professional experience includes serving as a law clerk for the Chief Justice of the Alaska Supreme Court. Mr. Grossman's publications include "Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation," Columbia Journal of Environmental Law, Vol. 28, p.1, 2003. He graduated summa cum laude from Princeton University and received his law degree from Yale Law School

About Ceres

Ceres is a national coalition of investors, environmental groups, and other public interest organizations working with companies to address sustainability challenges such as climate change. Ceres also directs the **Investor Network on Climate Risk**, a group of 50 institutional investors from the U.S. and Europe managing nearly $3 trillion of assets. INCR was launched at the Institutional Investor Summit on Climate Risk at United Nations Headquarters in 2003. The purpose of INCR is to promote better understanding of the risks of climate change among institutional investors. For more information, visit www.ceres.org and www.incr.com.

For more information, contact:

Andrew Logan
Program Manager
Ceres, Inc.
99 Chauncy Street, 6th Floor
Boston, MA 02111
logan@ceres.org
www.ceres.org
www.incr.com

Ceres
99 Chauncy Street
Boston, MA 02111
617-247-0700
www.ceres.org

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