Corporate Governance and Climate Change: *Making the Connection*

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Foreword

Companies and investors can no longer afford to ignore global warming.
A preponderance of evidence shows that worldwide temperatures are rising, glaciers are melting and hurricanes are becoming more fierce. This confluence of events is forcing governments worldwide to enact limits on the pollutants that are trapping heat in the atmosphere.

These trends present enormous risks and opportunities for companies and investors. With the launch of the Kyoto Protocol and expanding greenhouse gas limits, power companies and other energy-intensive businesses face growing risks from the energy they use and how efficiently they use it. Companies also face risks from direct physical impacts, including stronger and more frequent storms, droughts, floods and sea level rise. In turn, forward-thinking companies that fine-tune their operations and develop new climate-friendly products can prosper from climate change.

This report is the first comprehensive measurement of how 100 leading global companies are preparing and positioning themselves to face these challenges. It pays particular attention to the job that corporate executives and board members are doing to enact well-functioning governance systems to face the climate challenge.

The report employs a "Climate Change Governance Checklist" to evaluate how 76 U.S. and 24 non-U.S. companies are addressing climate change through board oversight, management performance, public disclosure, emissions accounting and strategic planning.

The results are encouraging. In 2003, Ceres released a report on 20 companies showing that major U.S. businesses were largely ignoring these issues. By contrast, this report shows that corporate leaders in many key industries are now facing the challenge head-on—companies such as DuPont, Cinergy, American Electric Power and General Electric, which earned the highest scores in their respective industries.

Yet for all of the positive momentum in elevating climate as a governance priority, most American companies lag behind their international peers—a trend that is already resulting in competitive advantages for overseas companies developing low-carbon technologies in the auto and power sectors. No less worrisome, dozens of U.S. businesses in various climate-vulnerable sectors—including power, oil and gas, coal, air transportation and food products—are ignoring the issue with 'business as usual' responses that are putting their companies, and their shareholders, at risk.

This report is a valuable tool for company executives, board members, investors and Wall Street analysts. Here's how each group should use it:

- Company executives should evaluate their own company's performance relative to their particular set of circumstances and their industry peers. If their governance scores fall short, they should pursue the four key steps to manage climate risks and opportunities outlined later in this report.
- Board members at low-scoring companies should address the issue with management and begin educating themselves on the business and financial dimensions of this issue.
- Investors should evaluate how companies score relative to their industry peers—especially in high-risk sectors such as electric power, oil/gas and the auto industry—and should engage with poor corporate performers.
- Wall Street analysts should use the information in this report as a basis for rewarding companies that are responding to these challenges, and assigning risk to those that are not.

Tackling these issues is an enormous challenge. It requires that corporate leaders deliver short-term financial returns while also building capacity for the challenges that climate change presents in the long term. Companies such as GE and DuPont have stepped up to the challenge, but many other U.S. companies have not. There's simply too much at stake for that not to change.

Mindy S. Lubber
President, Ceres
Director, Investor Network on Climate Risk

Executive Summary

This report is the first comprehensive examination of how 100 of the world's largest corporations are positioning themselves to compete in a carbon-constrained world. With the launch of the Kyoto Protocol[1] in 2005, managing greenhouse gas emissions is now a routine part of doing business in key global trading markets. As the United States moves to join the international effort to combat global warming, climate governance practices will assume an increasingly central role in corporate and investment planning. Eventually, nothing short of an energy and technology revolution will be needed to stem rising greenhouse gas emissions across the globe.

Faced with record warmth, unprecedented hurricane activity and rapid shrinking of polar ice caps, industry opposition to confronting climate change is diminishing.

Faced with record warmth, unprecedented hurricane activity and rapid shrinking of polar ice caps, industry opposition to confronting climate change is diminishing. Skeptics no longer question whether human activity is warming the globe, but how fast. Companies at the vanguard no longer question how much it will cost to reduce greenhouse gas emissions, but how much money they can make doing it. Financial markets are starting to reward companies that are moving ahead on climate change, while those lagging behind are being assigned more risk.

Ultimately, effective corporate responses to climate change must be built on well-functioning environmental management systems and properly focused governance practices. Shareholders and financial analysts will increasingly assign value to companies that prepare for and capitalize on business opportunities posed by climate change—whether from greenhouse gas (GHG) regulations, direct physical impacts or changes in corporate reputation.

This report is designed to be used as a benchmarking tool by institutional investors and corporations that are ready to seize on these trends. It employs a "Climate Change Governance Checklist" to evaluate how 76 U.S. companies and 24 non-U.S. companies are addressing climate change through board oversight, management execution, public disclosure, emissions accounting and strategic planning. Information was gathered and synthesized over the past nine months from securities filings, company reports, company websites and third-party questionnaires. Each of the 100 companies in this report was given an opportunity to comment on the draft profiles and 84 companies offered comments.

U.S. Companies: Progress Since 2003

The first edition of this report, published in 2003, introduced the Climate Change Governance Checklist. It scored 20 global companies on 14 governance actions that companies should take to proactively address the climate issue. A key finding of that report was that major American companies and industries were largely ignoring or discounting climate change in their governance practices and strategic planning. This is no longer the case. Corporate leaders in many industries have begun to meet the climate challenge. Consider the following:

- In 2003, U.S.-based petroleum companies had virtually a single-minded focus on oil and gas development. ***In 2004, Chevron formally integrated renewable technologies into its energy portfolio, and now invests more than $100 million per year in low-carbon and carbon-free energy alternatives.***

1. The Kyoto Protocol was adopted at the Third Session of the Conference of the Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC) in 1997 in Kyoto, Japan. It contains legally binding commitments, in addition to those included in the UNFCCC. Country signatories to the Protocol agreed to reduce their anthropogenic emissions of greenhouse gases (CO_2, CH4, N_2O, HFCs, PFCs, and SF6) by an average of 5.2% below 1990 levels in the commitment period 2008 to 2012.

- In 2003, U.S. auto companies relied on sales of big sport utility vehicles with low gas mileage as their main source of profits. ***In 2004, Ford introduced the first American-built hybrid SUV, and now plans to increase hybrid vehicle production tenfold, to 250,000 annually, by 2010.***
- In 2003, few U.S. electric power companies acknowledged the risks related to climate change. ***In 2004, American Electric Power announced plans to build the first commercial-scale power plant using coal gasification technology, calling it the "right investment" given foreseeable GHG regulations. Cinergy and many other companies are indicating that GHG regulations are likely and are now advocating for a national climate policy with mandatory controls.***
- In 2003, American equipment manufacturers were largely silent about their plans to develop GHG-saving technologies. ***In 2005, General Electric launched its "ecomagination" campaign, a plan to double investments in climate-friendly technologies and reach $20 billion in annual sales by 2010.***

"The era of easy oil is over... What we all do next will determine how well we meet the energy needs of the entire world in this century and beyond."

David J. O'Reilly, CEO/ Chairman, Chevron

The U.S. companies profiled in this report, covering 10 different industries, provide many positive examples of actions that companies are taking to integrate climate change in their governance practices and strategic planning. This report examines five such topics in detail.

- **Board oversight:** Companies like Anadarko Petroleum, Cinergy and Dow Chemical have created climate change task forces to integrate board oversight with executive-level actions to manage greenhouse gas emissions.
- **Management execution:** The CEOs of companies like Alcoa, Duke Power and United Technologies have become leaders in their industries by articulating the business case for GHG controls and a supportive government regulatory framework.
- **Public disclosure:** Companies like DuPont, Ford and Entergy have disclosed their climate risks and opportunities in their securities filings and other public documents.
- **Emissions accounting:** Companies like General Motors, Southern and Sunoco have provided detailed public accounts of their GHG emissions that include historical baselines, tracking of emissions savings and projections of future trends.
- **Strategic planning:** Companies like Air Products & Chemicals, Edison International and Weyerhaeuser have created business management and product development plans which are poised to seize new opportunities presented by climate change.

How Companies are Scored

This report analyzes 100 companies in the 10 most carbon-intensive sector industries in America—electric power, oil and gas, autos, chemicals, industrial equipment, metals and mining, coal, food products, forest products, and air transport. Profiled companies have major operations in the United States and rank among the largest in their industries, based on market capitalization and revenues.

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

		Points
	BOARD OVERSIGHT	
1	Board committee has explicit oversight responsibility for environmental affairs.	**Up to 12**
2	Board conducts periodic review of climate change and monitors progress in implementing strategies.	
	MANAGEMENT EXECUTION	**Up to 18**
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.	
5	Executive officers' compensation is linked to attainment of environmental goals and GHG targets.	
	PUBLIC DISCLOSURE	**Up to 14**
6	Securities filings identify material risks, opportunities posed by climate change.	
7	Sustainability report offers comprehensive, transparent presentation of company response measures.	
	EMISSIONS ACCOUNTING	**Up to 24**
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.	
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	**Up to 32**
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.	
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.	

100 Company Scores by Sector—*Maximum Score: 100*

TOP SCORING SECTORS

Chemical Industry	51.9
Company	*Score*
DuPont	85
Bayer	71
ICI	60
BASF	59
Dow Chemical	59
Air Products	49
Praxair	43
Rohm & Haas	40
Monsanto	32
PPG	21

Electric Power	48.8
Company	*Score*
AEP	73
Cinergy	73
Entergy	65
Exelon	63
Calpine	55
PG&E	54
Xcel Energy	53
Edison Int'l	51
Southern	51
TXU	51
DTE	50
FirstEnergy	50
FPL Group	50
Duke	47
Progress	36
AES	34
Sempra	24
Dominion	27
Constellation	23

Auto Industry	47.9
Company	*Score*
Toyota	65
Honda	62
Ford	58
GM	52
Daimler	43
Volkswagen	37
BMW	35
Nissan	33

These charts show the 100 company scores, listed by sector. The chemical sector had the highest average governance scores, and the airline sector had the lowest average scores. Average scores for each sector are shown in white, followed by individual company scores.

MID SCORING SECTORS

Industrial Equip.	42.5
Company	*Score*
GE	58
ABB	54
UTC	52
Hitachi	51
Mitsubishi	45
Siemens	40
Caterpillar	27
Deere	14

Metals and Mining	42.2
Company	*Score*
Alcan	77
Alcoa	74
Nippon Steel	67
BHP Billiton	63
Anglo Amer.	56
Newmont	24
Nucor	21
U.S. Steel	20
Mittal Steel	14
Phelps Dodge	6

Forest Products	37.2
Company	*Score*
Int'l Paper	49
Abitibi	45
Weyerhaeuser	35
MeadWestvaco	31
Georgia-Pacific	26

LOW SCORING SECTORS

Oil and Gas	34.8
Company	*Score*
BP	90
Royal Dutch	79
Statoil	72
Total	62
Chevron	57
Anadarko	39
Sunoco	39
Amerada Hess	35
ConocoPhillips	35
ExxonMobil	35
Marathon	26
Occidental	25
Valero	24
Apache	22
Tesoro	15
Burlington	13
Devon Energy	11
El Paso	9
Murphy Oil	6
Williams	3

Coal Industry	21.4
Company	*Score*
Rio Tinto	57
Peabody	23
CONSOL	14
Arch	8
Foundation	5

Food Industry	17.6
Company	*Score*
Unilever	49
Nestle	29
General Mills	22
ADM	12
Altria	11
PepsiCo	9
Bunge	5
ConAgra	4

Airline Industry	16.6
Company	*Score*
UPS	30
British Airways	27
Air France	23
FedEx	18
AMR	9
Southwest	6
UAL	3

Climate Leaders: International Competitors Are Still Pacesetters

For all of the positive steps that American companies are taking to address climate change at the governance level, most are playing catch up with their international competitors—companies such as BP, Toyota, Alcan, Unilever and Rio Tinto. Based on the Climate Change Governance Checklist, foreign companies have the highest scores in five of the nine industries which included both U.S. and non-U.S. companies. (In the electric power sector, foreign companies were not analyzed.)

"If auto makers don't reduce smog-forming emissions, greenhouse gases and the need for petroleum, we won't be in business."

Fujio Cho, Toyota President in 2004

Such international leadership is partly because these non-U.S. companies are based in countries that have ratified the Kyoto Protocol and have begun to implement greenhouse gas emission controls. However, because many U.S. firms also compete in these markets and are subject to the same regulations, geography alone does not account for all of these differences. Other company-specific factors, such as integration of board and management environmental roles, long-term planning cycles and a commitment to sustainability reporting, typically contribute to the industry-leading positions of many non-U.S. companies.

This report also identifies a handful of industry groups—especially coal, food product and airline companies—where climate change continues to be widely ignored as a governance priority, even though it could have a tremendous impact on their business. For example, many coal companies (especially in the U.S.) have done little to mitigate the financial impacts of carbon regulations, despite managing the world's most carbon intensive fuel source. Similarly, food product companies have agricultural-based raw materials and water resources at risk, but few have developed a strategy to manage this exposure. And while airline companies are among the world's fastest growing sources of CO_2 emissions, they have the lowest average governance scores among all 10 sectors examined, in part because they are looking mainly to other industries to find technological solutions and achieve emissions improvements.

Common Themes of Leadership Companies

While climate change should be a governance focus of all companies and major industry groups, the risks and opportunities presented by this issue are not distributed evenly. Some companies and industries—by virtue of the types and amount of energy they use or produce—will be better positioned to respond than others. Likewise, some companies and industries—by virtue of the types and location of their businesses and physical assets—will be more vulnerable to changing climatic conditions.

Among leadership companies, however, three common governance practices should serve as a model for all firms, regardless of the risk-reward ratio that climate change presents to their particular circumstances. At these leading firms:

- **Boards of directors and senior executives work together to address climate change and other sustainability issues.** A key challenge for all firms is ensuring that boards are adequately prepared and empowered to focus on GHG reduction and climate mitigation strategies.
- **CEOs embrace climate change as a near-term priority.** True leaders are speaking out on climate policy, risks and opportunities, rather than leaving the issue to their successors.
- **Management teams pursue practical solutions to climate change.** Rather than waiting for breakthrough technologies, management teams are working to find cost-effective, near-term ways to reduce GHG emissions, starting with energy conservation and more efficient production processes. At the same time, many of these companies are laying the building blocks toward a carbon-neutral economy, with projects focused on carbon sequestration and infrastructure for hydrogen fuels.

Following is a summary of governance actions taken by the top-scoring companies in each of the 10 industries examined in this report:

BP (Oil & Gas): 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. The company has cut its operational GHG emissions 10 percent below 1990 levels, and now aims to hold its emissions steady through 2012. In 2005, BP established an alternative energy business unit that plans to invest $8 billion in solar, wind, hydrogen and combined-cycle power generation technologies over the next decade.

DuPont (Chemicals): DuPont's board of directors has overseen the company's climate change activities since 1994. The company is committed to reducing its GHG emissions 65 percent below 1990 levels by 2010 and plans to increase its usage of renewable energy to 10 percent of its total by 2010. It is actively engaged in GHG emissions trading and is developing next-generation refrigeration systems, fuel cells, biomaterials, lightweight materials and energy-saving insulation.

Alcan (Metals): Alcan created an executive-level steering team in 2001 to embed energy efficiency and GHG emissions reduction goals throughout the company. It achieved 2.9 million tons of GHG reductions between 2001–2004. Through recycling programs and the development of energy efficient products, Alcan believes the aluminum industry can become carbon neutral on a life-cycle basis by 2020.

AEP and Cinergy (Electric Power): In response to shareholder requests, the board of directors at these power companies agreed in 2004 to produce reports on their climate risk mitigation strategies. Both have targets to reduce GHG emissions and are pursuing development of integrated gasification combined cycle (IGCC) power plants. By gasifying coal to generate electricity and disposing of CO_2 emissions underground, these companies believe it is possible to make coal an emissions-free generating source.

"Nothing will happen on climate change without the CEO and board directly involved."

Jim Rogers, CEO/ Chairman, Cinergy

Toyota (Autos): Toyota formed a company-wide Global Warming Prevention Council in 1998 to meet the CO_2 emission targets set by the Kyoto Protocol. That same year, it introduced the Prius, now the best-selling gasoline-electric hybrid vehicle in the world. By 2010, the company plans to offer hybrid options across all of its major model lines. Additionally, Toyota has set a goal to reduce facility emissions by 20 percent on a sales-weighted basis in the period 2001–2010.

General Electric (Industrial Equipment): As part of the "ecoimagination" initiative announced in 2005, GE has pledged to achieve a 1 percent reduction in its GHG emissions from 2004 levels by 2012. GE plans to double its investments to $1.5 billion a year by 2010 in clean technologies, such as wind turbines, high efficiency gas turbines, IGCC power plants, and hybrid diesel-electric locomotives.

Rio Tinto (Coal and Minerals): Rio Tinto has a Climate Change Leadership Panel and a climate change executive to help coordinate GHG reduction efforts among its business groups. The company is developing "low emissions pathways" for its products to reduce the GHG emissions intensity in coal combustion, metals smelting and electricity use.

International Paper (Forest Products): International Paper has an internal committee comprised of senior executives that reviews its climate change policies. This work is overseen by the board's Public Policy and Environment Committee. The company plans to reduce absolute GHG emissions by 15 percent between 2000–2010. It was the first forest products company to join the Chicago Climate Exchange.

Unilever (Food Products): Unilever's Corporate Responsibility Council oversees the company's environmental and sustainability policies and performance. The company sets targets for energy efficiency improvements and GHG emission reductions. Unilever places particular emphasis on the use of refrigeration equipment that reduces or eliminates coolants that contribute to global warming. Additionally, the company makes life cycle assessments of the GHG emissions from its products.

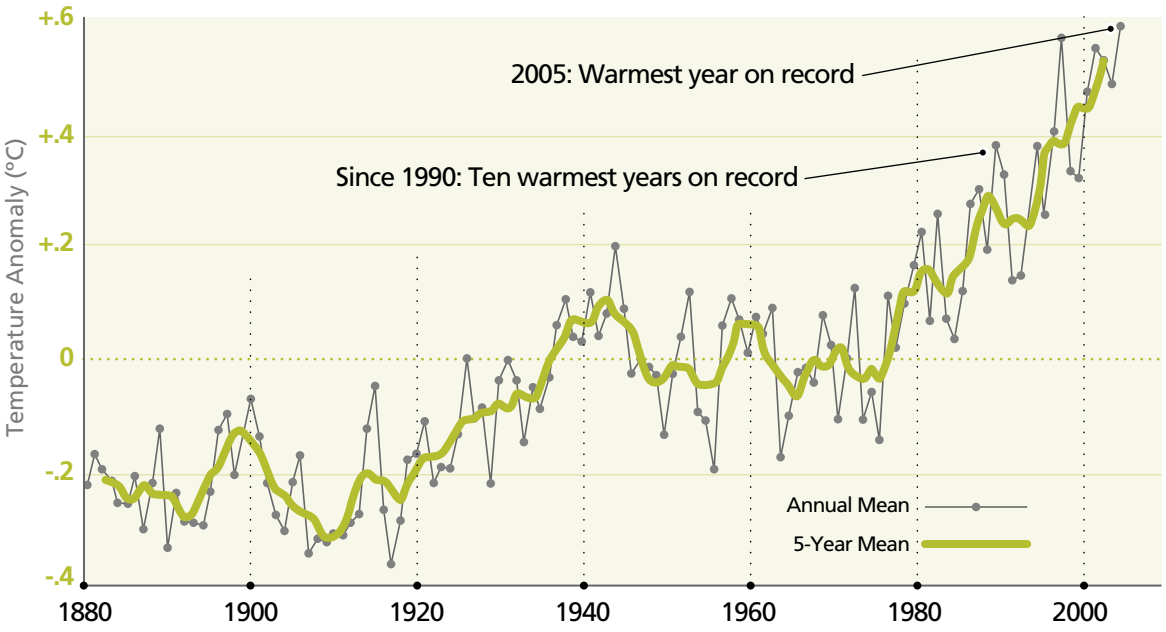
United Parcel Service (Air Transport): UPS's Corporate Environmental Affairs Group coordinates the company's GHG emission reduction strategies. These include increasing the fuel efficiency of aircraft and vehicles, and testing new technologies for use in facilities. UPS maintains a large fleet of alternative fuel vehicles and is deploying hybrid technologies.

Climate Change: A Growing Sense of Urgency

During the last several years, climate change has emerged as a top-tier concern for companies, investors and governments. The validity of the science supporting climate change is no longer debated. The atmosphere is warming, and human activity—principally the burning of fossil fuels—is a primary cause.

This section provides a basic overview of the science, how the problem may affect people and societies, and the rapidly-changing regulatory environment.

- **Global temperatures:** 2005 was the warmest year on record, according to NASA's Goddard Institute. As shown below, nine of the last 10 years have been the warmest since modern records began in 1861. Warming has accelerated in recent decades and has boosted Earth's average temperature by nearly 1 degree Fahrenheit since 1976. The warming trend is especially severe in the Arctic, where the rate of warming has been twice as fast and 20 percent of the summer polar ice cap has been lost since the 1970s. If these trends continue, global average temperatures could increase by 3 to 10 degrees F by the end of the century, and the summer polar ice cap could disappear entirely. The melting of glacial ice could raise sea levels by three feet or more, inundating low-lying regions.



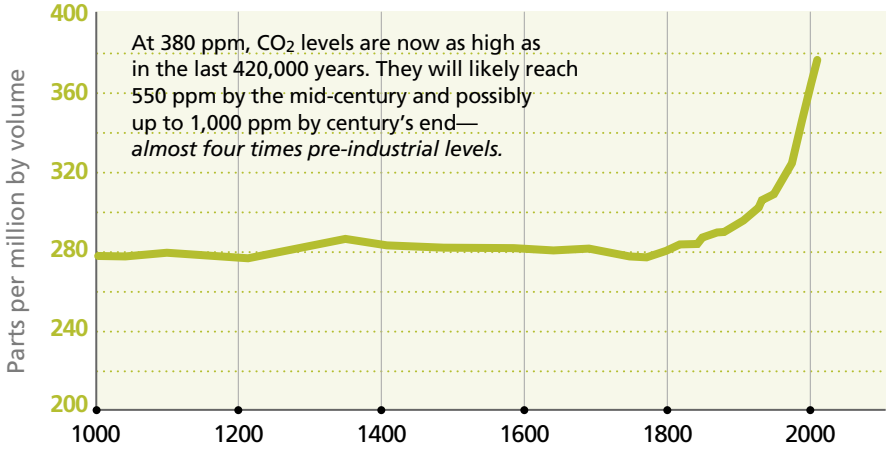
Global Temperature: Land-Ocean Index

Source: NASA's Goddard Institute

- **Cause of the Warming:** As shown on the next page, carbon dioxide in the atmosphere has risen from 280 parts per million since the start of the Industrial Revolution in 1750 to nearly 380 ppm today— its highest level in at least 420,000 years. If fossil fuels continue as the dominant energy source, and their carbon emissions are not contained, atmospheric CO_2 is expected to surpass 550 ppm by the middle of the century and possibly reach 1,000 ppm by the end of the century—almost four times pre-industrial levels.

Because carbon dioxide and other greenhouse gases linger in the atmosphere long after they've been produced, and because the ocean has already absorbed heat that will gradually transfer into the air, the Earth, even if all emissions stop now, will see additional warming in the decades ahead. One additional degree F of warming is expected just from today's levels of carbon dioxide. That would raise the Earth's

temperature to its highest level since the end of the last Ice Age some 9,000 years ago. However, because the current rate of warming equals 3 degrees F per century and is accelerating, present generations are almost assured of experiencing higher global temperatures than at any time in human history. If temperatures were to climb another 5 degrees F, an outcome squarely in the middle of the projected temperature range for the 21st century, then future generations could inherit an Earth as warm as it has been since the end of the dinosaur era some 65 million years ago.

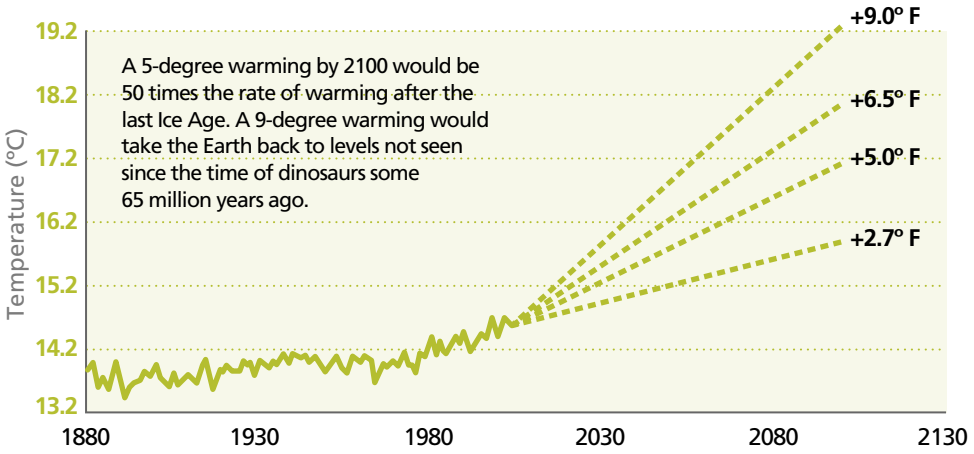


Atmospheric Concentrations of Carbon Dioxide, 1000–2003

Source: Scripps, ORNL, and IPCC

- **Rate of Warming:** More alarming than the temperature rise itself is the rate at which it may occur—leaving little time for adaptation to a hotter climate. Even a 2.5-degree F rise by 2100, which is at the lower end of the projected range for the next century, would represent more than a doubling of the rate of warming in the 20th century. A 10-degree warming, at the upper end of the range, would represent an eight-fold increase in the rate of warming. While humans have considerable ability to adapt to a rapidly changing climate, many natural ecosystems are not nearly as flexible and could be irreparably damaged.
- Agricultural regions and water resources could also be severely stressed. In this scenario, coastal areas, low-lying wetlands and estuaries could be inundated because of sea level rise. New studies point to rapid increases in the rate of snowmelt in Greenland and Antarctica. The Greenland and West Antarctic Ice Sheets contain enough ice to raise the sea level by nearly 40 feet if they all melted. Though climate models project no more than three feet of sea level rise in the 21st century, recent studies suggest much greater increases are possible. A 20-foot increase would place Miami and the Gold Coast of Florida underwater, and cause severe flooding in other port cities around the world.[2]
- Adding together all of the projected impacts of global warming from human casualties and dislocations, coastal losses and added costs for water management, agriculture and forestry, the annual toll could reach $300 billion worldwide by 2050, equal to 1.5 percent of projected gross domestic product, according to calculations by Munich Re, the German reinsurance company. Given that the costs of weather-related catastrophes topped $200 billion in 2005, this figure may prove to be conservative.

2. Institutional Investor Summit on Climate Risk at the United Nations, Presentation by Dr. John Holdren, professor at Harvard University, May 10, 2005

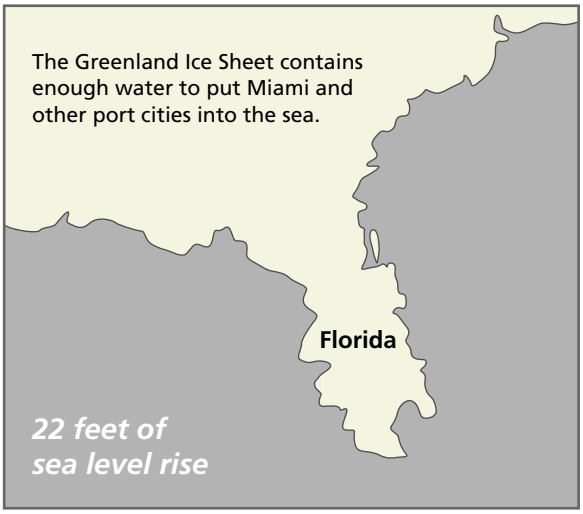


Average Global Temperature, 1880–2004, with Projection to 2100

Source: NASA Goddard Institute for Space Studies and the Intergovernmental Panel on Climate Change

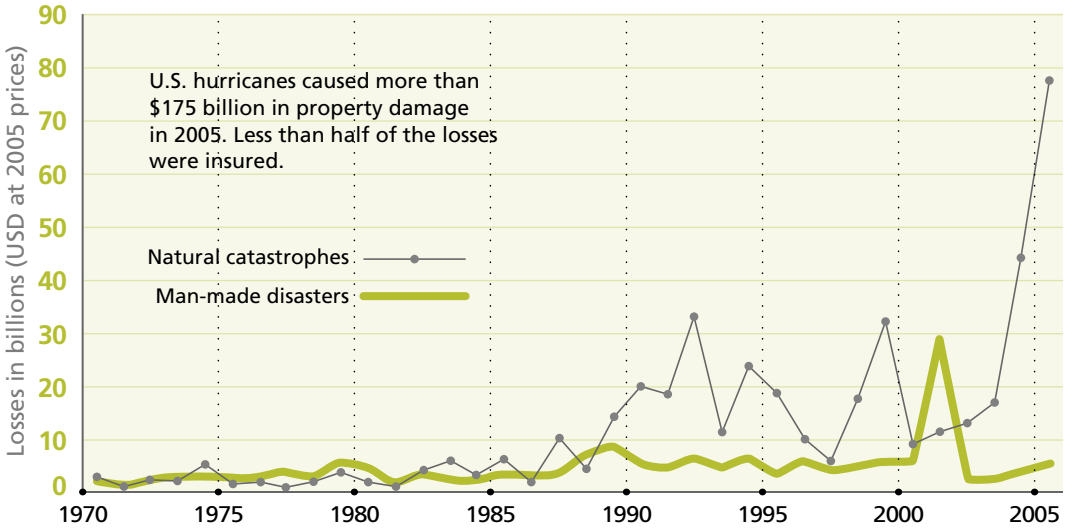
- **Climate change impacts in the United States:** Temperatures in the continental United States have risen about 1.2 degrees F in the last 30 years. In Alaska and western Canada, average winter temperatures have risen as much as 7 degrees F since 1950. Pine beetles have spread with the warmer weather, devastating millions of acres of forest. Rising temperatures are also associated with more intense wildfires throughout western North America, proliferation of West Nile Virus across the U.S., the spread of soybean and other crop pests in the Midwest, mold outbreaks in Texas, and shellfish disease in the Chesapeake Bay and parts of the East Coast. Torrential rainfall has become more common across the country, increasing the incidence of flash floods.

- **Extreme weather events:** A record 26 tropical storms and hurricanes formed in the Atlantic Ocean in 2005, including three Category 5 storms that made U.S. landfall. Hurricane Katrina caused a record $135 billion in property damage along the Gulf Coast. Seven of the nine costliest Atlantic hurricanes have struck since 2004. Disasters in 2005 also included the highest rainfalls ever recorded in India and record-high temperatures in drought-stricken southern Africa and Australia. A forthcoming report from the Intergovernmental Panel on Climate Change attributes such weather anomalies to rising concentrations of greenhouse gases in the atmosphere. It also warns that the Earth's temperature could rise well above previously forecast levels.



Seawater Rise Effect on Florida Coast

Source: Richard B. Alley, University of Pennsylvania



Insured Losses 1970–2005

Source: Swiss Re

- **Rising costs of natural disasters:** The cost of natural disasters exceeded $225 billion in 2005, up from the previous record of $118 billion in 2004, according to reinsurance giant Swiss Re. A 2005 Ceres report reveals a 15-fold increase in insured losses globally from catastrophic weather events in the past three decades—losses that have far out-stripped increases in premiums, inflation and population growth. Swiss Re's chief claims strategist now says that, "Global warming has accelerated from a problem that might affect our grandchildren, to one that could significantly disturb the social and economic conditions of our lifetime."
- **Climate change regulations take hold:** Assuming "business as usual" economic growth and population increases, and energy efficiency increases continuing at the historical rate of 1 percent a year, the world would need a six-fold increase in carbon-free energy by 2050 and a 15-fold increase by 2100 to maintain CO_2 levels below 550 ppm. In 2005, the world took its first official collective steps to combat global warming. In Europe, a cap-and-trade program went into effect that requires more than 11,000 industrial facilities to achieve greenhouse gas (GHG) emission reductions. More than 230 million tons of carbon dioxide was traded in the first year, with a value of over $5 billion. The year also was marked by the implementation of the Kyoto Protocol, which commits Europe, Canada, Japan, Russia and many other industrialized nations to cut their GHG emissions below 1990 levels by 2012. More than 150 countries have ratified the Kyoto treaty.
- **U.S. states fill federal policy vacuum:** At climate treaty negotiations in Montreal in December 2005, the Bush Administration re-affirmed its opposition to mandatory GHG emission controls and its support of voluntary reduction measures. A growing number of American CEOs say that a more aggressive approach is needed and that U.S. companies are hampered competitively by the lack of a clear national strategy. Since 1990, the nation's GHG emissions have risen more than 16 percent. Meanwhile, a growing number of municipalities and states are enacting their own regulations and laws to reduce GHG emissions. In December 2005, seven Northeast state governors approved a market-based accord to reduce GHG emissions from regional power plants, beginning in 2009. Twenty states have adopted renewable portfolio standards to diversify energy supplies. Eleven states have adopted or are in the process of adopting mandatory regulations to reduce greenhouse gas emissions from automobiles.

"Global warming has accelarated from a problem that might affect our grandchildren to one that could significantly disturb the social and economic conditions of our lifetime."

Richard Murray, Chief Claims Strategist, Swiss Re

Climate Change and Corporate Governance: Making the Connection

For corporations, climate change is a financial problem that presents significant economic and competitive risks and opportunities. Corporate boards, executives, and shareholders simply cannot afford to ignore it.

This section of the report covers four broad topics that outline how companies can address the climate issue and why they should be doing it:

- ***Why Companies Must Act Now***
- ***What CEOs Are Saying***
- ***What Companies Should Do***
- ***Investor Actions***

◆ Why Companies Must Act Now

Given the sweeping global nature of climate change, climate risk has become embedded, to a greater or lesser extent, in every business and investment portfolio. Companies with significant GHG emissions or energy-intensive operations face risks from new regulations. Climate change also poses direct physical risks to a wide array of firms and industries. Climate change deserves discussion in securities filings in the many instances in which direct financial risks or opportunities can be identified.

	Electric Power	Manu-facture	Auto & Trans.	Oil & Gas	For-estry	Agricul-ture	Fisher-ies	Health-care	Real Estate	Tourism	Water
Regulatory Risk	◆	◆	◆	◆	◆	◆					
Physical Risk (dependent on location)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Competitive, Reputational Risk	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Regulatory Opportunity	◆	◆	◆	◆	◆						◆
Technological Opportunity	◆	◆	◆	◆	◆	◆					◆
Competitive, Reputational Opportunity	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

Climate Risk & Opportunities in Selected Industries

Source: Ceres report – Managing the Risks and Opportunities of Climate Change: A Toolkit for Corporate Leaders

- **Physical Risks:** Businesses are at risk from the physical impacts of climate change, including the increased intensity and frequency of weather events, droughts, floods, storms and sea level rise. Changes in consumer habits that accompany changing weather patterns will also affect profitability in a number of sectors.
  - ✦ Six months after Hurricane Katrina, one of the strongest hurricanes on record, New Orleans remains a city in disrepair. Businesses along the Gulf Coast suffered billions of dollars of infrastructure damage, with particularly costly effects to oil and gas rigs and refineries. Forecasters are predicting another very active hurricane season in the months ahead.
  - ✦ Long-term capital investment plans may not properly account for climatic alterations. For example, a proposed $7 billion pipeline in Canada's Mackenzie Valley is dependent on permafrost, or frozen ground, as a supportive structure. When permafrost thaws, a process that has already begun, long-term investments in the pipeline will be at risk.

- All told, trillions of dollars of property on or near coastlines now stand in harm's way. Away from the coasts, drought and more frequent heat waves could lead to the collapse of local food systems. According to the World Meteorological Organization, the percentage of the Earth's land area stricken by severe drought has already more than doubled over the last quarter century.

- **Regulatory Risk:** State, national, and international regulations are putting increasing pressure on companies with emissions from operations or products to invest in emissions controls, purchase carbon credits, or face clean-up costs.
  - In the United Kingdom and throughout Europe, as well as in Canada and Japan, the Kyoto Protocol has come into effect. Developing countries like China also have emission reduction laws in place. Compliance with global emission reduction requirements is likely to be significantly more costly for companies with the poorest climate governance.
  - Nationally, it is only a matter of time before Congress enacts federal carbon constraints. A growing number of Wall Street firms, industry CEOs and evangelical leaders are questioning the U.S. government's voluntary approach to climate change and are calling for greater measures to reduce regulatory uncertainty.
  - In the face of federal inaction, regulatory activity is picking up at the state and regional level. California and ten other states[3] are moving to limit CO_2 emissions from automobiles. This would impact at least 33 percent of all new cars and light trucks sold in the U.S. Likewise, four states[4] are already regulating CO_2 from electric utilities, and others are considering it. Seven northeastern states[5] have agreed to a cap-and-trade emissions reduction program for the electric power sector, and California, Oregon, and Washington are working on a similar region-wide approach to limit greenhouse gases.

"For Alcan, addressing the economic, social, and environmental dimensions of climate change is directly related to the company's global competitiveness."

Alcan 2005 Sustainability Report

- **Competitive Risk:** Tightly linked to regulatory risk in the global and domestic marketplaces, climate risk preparedness will be a key driver in a company's ability to compete.
  - At present, Ford and General Motors are engaged in a high-stakes struggle to remain competitive as customers turn away from gas-guzzling SUVs in favor of hybrids and other vehicles from Japanese competitors. In China, auto sales are surging well beyond growth rates that the U.S. market has seen in recent decades. However, only 19 percent of current U.S. passenger cars and 14 percent of light-duty trucks can meet China's 2008 emission standards[6]. Both Toyota and Honda have decided to introduce their highly fuel-efficient hybrid models in the burgeoning Chinese market.
  - By some estimates, companies in the electric power sector that have not prepared for the inevitable future costs of carbon emissions could see losses in EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) of 24 percent to 83 percent[7]. Some public utility commissions now require utilities to include a cost for their carbon emissions, which will accelerate demand for cost-effective energy from providers of "clean" power such as wind, solar, hydro and possibly nuclear power.

3. Maine, Massachusetts, New York, Vermont, Connecticut, New Jersey, Rhode Island, Oregon, Washington State, and Pennsylvania

4. Massachusetts, New Hampshire, Oregon, Washington

5. Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont

6. According to an analysis by the U.S. Public Interest Research Group.

7. According to a February, 2006 analysis by Sanford C. Bernstein & Company.)

- **Technological and Competitive Risks and Opportunities:** Companies in many sectors can increase profitability by implementing energy efficiency strategies and developing emission-reducing technologies or new products that meet changing corporate and consumer demands.
  - ✦ Fossil fuels have been the driver of economic growth for more than two centuries, but change is clearly afoot. Global investments in renewable energy hit a record $30 billion in 2004, providing 1.7 million jobs worldwide. Far larger investments are expected in the years ahead, as Europe, the U.S., China and Japan aggressively embrace solar, wind and other climate-friendly options over increasingly costly fuels like oil and natural gas[8].

"We believe climate change is one of the most significant environmental challenges of the 21st century... Voluntary action alone cannot solve the problem."

Henry Paulson, Chairman, Goldman Sachs

  - ✦ Two remaining wildcards in this energy transition are coal and nuclear power, both of which face huge questions regarding waste disposal. In the case of coal, it is carbon dioxide disposal in the atmosphere that is the problem. If means are not found to capture and store CO_2 economically underground, coal, as the most carbon-intensive fossil fuel, will have to relinquish its role as the leading provider of electricity in a carbon-constrained world. Nuclear power could serve as a carbon-free alternative to coal. However, permanent disposal of high-level radioactive waste remains a vexing challenge, as do concerns over the safety of nuclear plants and proliferation of uranium fuel at a time of heightened global security risks.
  - ✦ To halve the projected rate of CO_2 emissions from energy by 2050, and stabilize atmospheric concentrations at twice pre-industrial levels, 25 billion tons of carbon dioxide emissions savings must be found. BP and Ford have supported research at Princeton University to explore ways in which energy demand could double over the next five decades (as is now projected) without increasing carbon dioxide emission rates above current levels. Princeton has identified seven strategies that could achieve this goal, each of which would supplant 3.5 billion tons of CO_2 emissions from other sources by 2050. For each of the strategies, U.S. businesses have an opportunity to capitalize on technological innovation:

1. Use existing energy efficiency methods to cut carbon emissions from buildings by 25 percent
2. Increase fuel economy in cars so that 2 billion vehicles run at an average of 60 miles per gallon
3. Use natural gas in place of coal at 1,400 one gigawatt (1,000 megawatt) generating plants
4. Capture and store the carbon dioxide generated at 1,600 gas-fired generating plants
5. Achieve a 50-fold increase in wind power
6. Achieve a 700-fold increase in the use of solar photovoltaics
7. Produce 34 million barrels of bio-fuels a day, using roughly 250 million hectares of arable land (approximately 16.5 percent of the world's available resources).

In short, the stakes could not be higher for U.S. companies and investors. The greatest investment opportunities as this new era takes hold will lie with companies that capitalize on this emerging shift in global energy use and production methods. The greatest risks will be with those that choose to ignore these trends and try to carry on with business as usual.

8. Renewable Energy Policy Network for the 21st Century, "Renewables 2005: Global Status Report," November 6, 2005

◆ What CEOs Are Saying

At the January 2005 World Economic Forum, British Prime Minister Tony Blair exhorted corporate and political leaders to acknowledge the serious threat posed by global warming and hasten their support for clean energy solutions. "Businesses and the global economy need to know this isn't an issue that is going away," said Blair, who has set an ambitious policy to reduce the United Kingdom's carbon dioxide emissions by 60 percent in the next half-century.

General Electric CEO Jeffrey Immelt echoed Blair's thoughts a few months later, saying "the time is now" to confront climate change and that it should be viewed as an opportunity, not a liability. Duke Energy CEO Paul Anderson came out in favor of a federal tax on carbon emissions in 2005, even though his company is merging with Cinergy to become one of the nation's largest carbon-emitting companies. According to Anderson, a carbon tax "would provide conservation incentives for everyone" and "foster the development of new technologies."

"We don't have a lot more time to deal with climate change," warned Goldman Sachs Chairman Henry Paulson, in announcing the adoption of a new climate change policy and support for federal GHG regulations in November 2005. Echoing what so many other business and government leaders recognized, Goldman's policy statement declared: "We believe climate change is one of the most significant environmental challenges of the 21st century" and "Voluntary action alone cannot solve the climate change problem."

Ford Motor's CEO Bill Ford said in 2005: "We see climate change as a business issue … and we're accelerating our efforts to find solutions." In Ford's recent climate risk disclosure report, the company made clear that "it is in the interest of society and business to reduce the uncertainty and increase the predictability of policy frameworks and market conditions around the issue of climate change."

"We see climate change as a business issue... and we're accelerating our efforts to find solutions."

Bill Ford, CEO/Chairman, Ford Motor

◆ What Companies Should Do

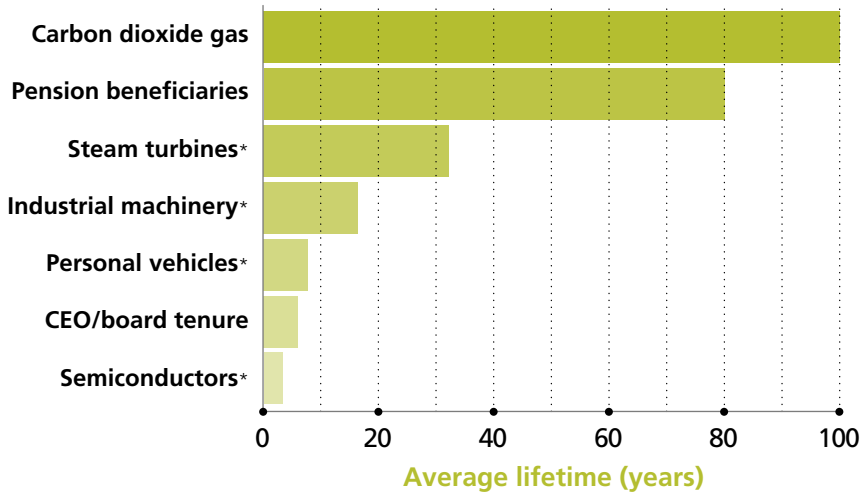
Companies that are successful in facing this challenge must have comprehensive climate change strategies, with the following four key elements[9]:

1. **Companies must assess the deepening financial connections between climate change and their businesses.** Companies with significant greenhouse gas emissions or high-energy use need to assess their exposure from new regulations and develop strategies for mitigating those risks. Companies vulnerable to the direct physical risks also need to take stock of their assets and supply chains. All of these assessments must be evaluated and managed at the highest corporate levels, including by CEOs and boards of directors.
2. **Companies must develop and implement action plans to manage climate risks and seize new market opportunities.** These plans should include new corporate policies and procedures for reducing and mitigating risk, setting absolute GHG reduction targets and energy efficiency goals, and developing or purchasing new clean energy technologies. Companies should also participate in climate policy dialogues that will reduce financial risks and enhance competitiveness opportunities.

9. Ceres and the Investor Network on Climate Risk, "Managing the Risks and Opportunities of Climate Change: A Toolkit for Corporate Leaders," January 2006

3. **Companies must share and discuss their climate strategies with investors, analysts and other stakeholders.** Companies should disclose their assessments and implementation plans in annual financial reports and corporate responsibility reports. Further, they should engage with shareholders, Wall Street analysts and public interest groups to obtain feedback in developing effective, proactive responses to climate change.
4. **Most important, corporate leaders must overcome a tendency toward short-term thinking to implement these climate strategies successfully—emphasizing long-term financial results and building long-term shareholder value.** In essence, the gap between corporate decision-makers and the lasting effects of their decisions must be narrowed.

This constitutes an enormous challenge. In almost every instance, chief decision makers leave their companies long before the capital they deploy does. A typical corporate CEO may look three to five years ahead when making a capital investment. By comparison, the average term of service for a long-lived asset like a fossil fuel energy plant is eight times longer and carbon dioxide emissions from such a plant last an average of 100 years.



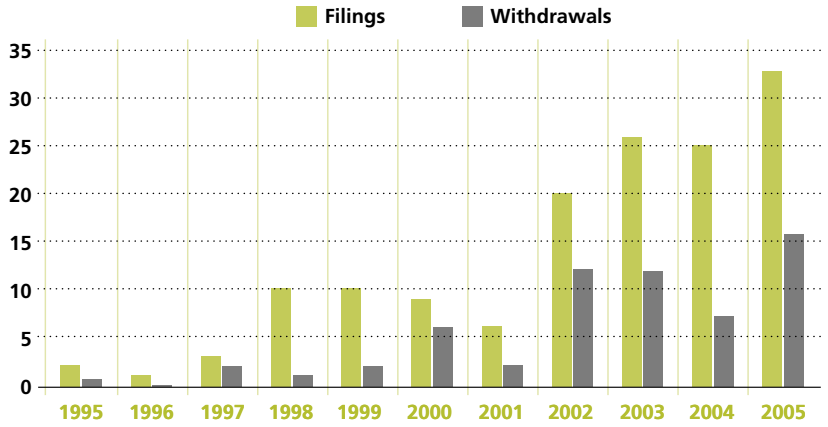
Capital Life Cycles vs. Natural Life Cycles

**Source for capital cycles: U.S. Department of Commerce, Bureau of Economic Analysis*

◆ Investor Actions

A growing number of institutional investors, many of them part of the $3 trillion Investor Network on Climate Risk (INCR), are banding together to place climate change squarely on the corporate governance agenda. At a climate risk summit in May 2005 at the United Nations, 28 INCR members endorsed a 10-point action plan seeking deeper analysis, disclosure and action from companies, Wall Street firms and regulators on the business risks and opportunities from climate change.

Investors' growing concern about climate change is also sparking a rising wave of shareholder proxy activity in the United States. Over two dozen global warming shareholder resolutions were filed with companies in 2004 and 2005—more than triple the number of filings in 2000 and 2001. And some of the resolutions received the highest voting support levels ever—a direct result of pension funds, labor funds and other institutional investors boosting their involvement in the climate issue. Three of the nation's five largest public pension funds, as well as the largest private pension fund TIAA-CREF, now routinely support climate change resolutions.



U.S. Climate Change Shareholder Resolutions, 1995–2005

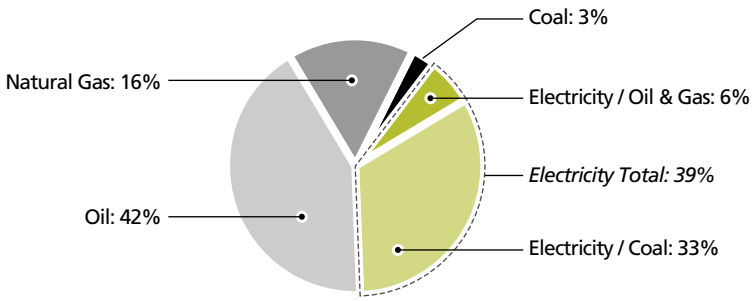
More than 200 institutions are participating in the Carbon Disclosure Project (CDP), which has been conducting annual surveys on climate practices at the world's leading companies. In February 2006, the project expanded its outreach to include more than 1,900 of the world's largest companies, including a new collaboration with INCR aimed at improving climate risk disclosure at S&P 500 companies in the United States. While substantially more companies are responding to the CDP's annual surveys, participation rates and levels of disclosure among U.S. companies remains relatively low compared to their foreign counterparts.

American and European investment banks are also boosting their attention to the climate issue, with several announcing new programs last year to include climate change in their lending, research and investment operations. In Europe, ABN AMRO Asset Management launched new climate-risk management services, including mutual funds focused on sustainability investments and trading of greenhouse gas emission allowances. Meanwhile, JPMorgan Chase announced it would track and control greenhouse emissions from its own operations and evaluate the effects of its lending operations on carbon-intensive industries. And in December 2005, Goldman Sachs became the first global investment bank to adopt a comprehensive environmental policy that acknowledges the value of "ecosystem services" and carbon savings.

As the profiles that follow in this report show, many businesses are embracing this new era of climate risk analysis and planning. But serious governance gaps remain, especially among U.S. companies, and the work of all businesses to achieve sustainable wealth in a carbon-constrained world is only just beginning.

How Companies were Selected for this Report

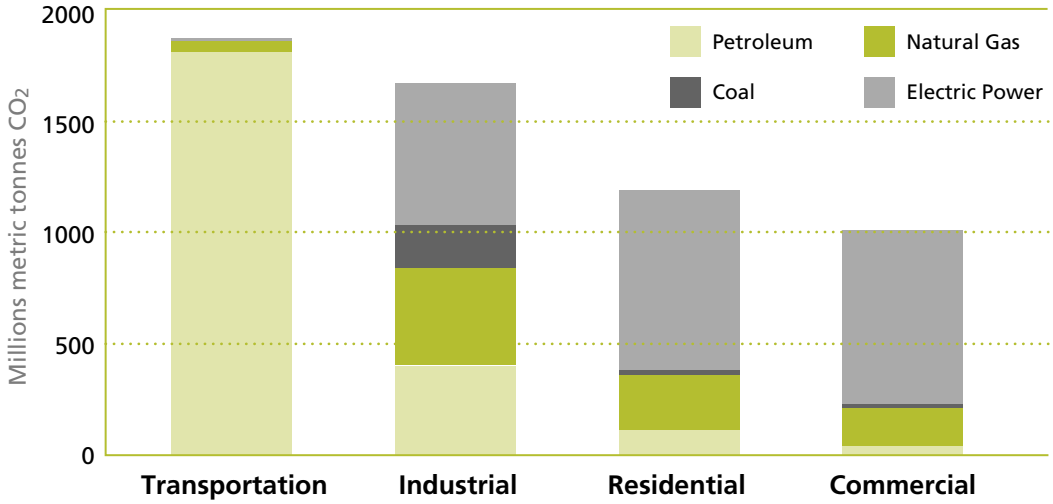
The 100 companies analyzed in this report come from the 10 most carbon-intensive industries in America, according to the U.S. Energy Information Agency. These industries are oil and gas, electric power, coal, autos, chemicals, metals/mining, forest products, industrial equipment, food products and air transport. Companies profiled have major operations in the United States and rank among the largest in their industries, based on market capitalization or revenues.



CO_2 Emissions by Fuel Source

Source: Energy Information Administration, data for 2002

Oil, natural gas and coal are the fuels responsible for virtually all of the nation's carbon dioxide emissions. These fossil fuels are either burned directly or are converted into electric power. This report covers the industries responsible for producing these energy sources—oil and gas, electric power and coal—as well as the largest energy-consuming industries in the transportation and manufacturing sectors.



CO_2 Emissions by Sector

Source: Energy Information Administration, data for 2002

Petroleum is responsible for virtually all CO_2 emissions in the transportation sector. Emissions in the industrial sector are more evenly divided among the four energy types listed above. In the residential and commercial sectors, electric power accounts for about three-quarters of all CO_2 emissions.

Coverage of companies: The 10 industry sectors analyzed in this report are:

Energy sector

- Oil & gas (20 companies)
- Electric power (19 companies)
- Coal (5 companies)

Industrial sector

- Metals & mining (10 companies)
- Chemicals (10 companies)
- Forest products (5 companies)
- Food products (8 companies)
- Industrial equipment (8 companies)

Transportation sector

- Autos (8 companies)
- Air transport (7 companies)

Statistics from the Energy Information Administration Annual Energy Review 2003

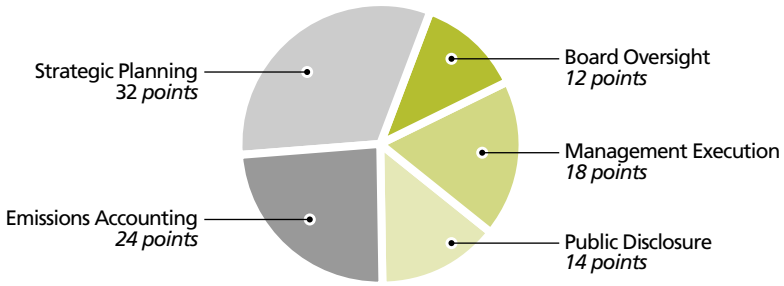
Industry	Total CO_2 Emissions[1]	Industry CO_2 Emissions[2]	Transportation CO_2 Emissions[3]	CO_2/$ shipment[4]
Oil & gas	3,285 (57.4%)			2,337
Electric power	2,165 (39.0%)			No data
Coal[5]	189 (3.3%)			No data
% of Total CO_2 Emissions	**5,639 (99.7%)**			
Metals & mining[6]		390 (25.8%)		1,546[7]
Chemicals		322 (21.6%)		786
Paper & wood products		239 (9.2%)		770[8]
Food		87 (5.7%)		202
Industrial equipment		15 (1.0%)		128
% of Industry CO_2 Emissions		**1,053 (69.6%)**		
Motor vehicles			1,153 (62.3%)	88
Airlines			234 (12.6%)	No data
% of Transportation CO_2 Emissions			**1,387 (74.9%)**	

1. Total CO_2 emissions were 5,720 million metric tons (MMT) in 2002.
2. Industry CO_2 emissions were 1,513 MMT in 1998, or 27.2% of total CO_2 emissions, based on fossil fuel and electricity use in manufacturing.
3. Transportation CO_2 emissions were 1,846 MMT in 2002, or 32.3% of the total, based on petroleum consumption by motor vehicles and jet aircraft. (This figure does not include fuel consumption by ships and locomotives.)
4. Figures reflect 1998 data.
5. Excludes coal for electricity generation, which accounted for 33% of total CO_2 emissions in 2002.
6. Includes primary metals, nonmetallic mineral products and fabricated metal products.
7. Figure is for primary metals. CO_2/$ shipment is 914.5 for nonmetallic minerals and 191.8 for fabricated metals.
8. Figure is for paper production. CO_2/$ shipment is 213.3 for wood products.

How Companies Are Scored

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.

Average Industry Scores

Industry	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
Chemicals	5.9	9.0	7.7	13.8	15.5	**51.9**
Electricity	5.5	8.8	8.7	13.7	11.9	**48.5**
Autos	6.5	9.0	7.9	12.9	11.6	**47.9**
Equipment	3.0	7.5	5.1	11.2	15.5	**42.3**
Mining	4.7	8.1	6.2	10.5	12.7	**42.2**
Forests	4.0	7.8	5.4	9.4	11.0	**37.6**
Oil & gas	4.1	6.1	4.9	10.3	9.5	**34.8**
Coal	1.6	3.6	5.4	5.2	5.6	**21.4**
Food	1.6	3.2	2.5	5.4	4.9	**17.6**
Airlines	0.9	3.0	3.7	4.6	4.4	**16.6**
Average	**5.5**	**8.9**	**8.7**	**13.7**	**11.7**	**48.5**

High Scoring Industries

Chemical Industry *(Average score: 51.9 points)*

Among the 10 industries evaluated, the chemical sector had the highest overall scores and tied with two other industries for the highest Management and Strategies scores. Chemical companies also scored strongly on Board Oversight.

- **Top Strategies scores:** Chemical companies are focused on new products that promote energy efficiency and growing demand for climate-friendly technologies. For example, DuPont is developing next generation refrigerants with low or no global warming potential and is leading an effort to build the world's first pilot-scale "bio-refinery," using the entire corn plant to produce ethanol. Air Products and Praxair are both involved in developing hydrogen and carbon sequestration technologies.
- **High Board and Management scores:** Most chemical companies have good management and/or board governance systems in place for addressing climate change. These high scores are partly the result of the industry's experience with the 1987 Montreal Protocol, which required a phase-out of chemicals that deplete the Earth's ozone layer. DuPont's board has been overseeing climate change activities since 1994.

- **High Emissions Accounting scores:** As a leading industrial energy consumer, many chemical companies have invested in more efficient energy systems and other changes in manufacturing processes that have reduced GHG emissions considerably. While a half-dozen companies have set GHG "intensity" reduction targets, DuPont and Bayer have set targets for 2010 to reduce overall emissions by 65 percent and 50 percent, respectively, relative to 1990 levels. Several companies conduct life-cycle assessments that measure product end-use GHG emissions.

Electric Utility Industry *(Average score: 48.5 points)*

The electric utility sector had the highest average Disclosure score of the 10 industries examined, as well as the second-highest Emissions Accounting score and the second highest average score.

- **Top Disclosure scores:** Accounting for nearly two-fifths of the nation's CO_2 emissions, electric utilities face considerable risks from climate change regulations. Six of the 19 companies profiled have published climate risk reports. Nine have expressed varying degrees of support for mandatory curbs on CO_2 emissions.
- **High Emissions Accounting scores:** Power companies have been required since 1990 to monitor and report CO_2 emissions. Many companies have also taken advantage of the 1992 Energy Policy Act to register CO_2 emissions savings under the Section 1605(b) program.
- **Above-average Strategies scores:** High-scoring companies are pursuing low- and no-carbon energy options—renewables, natural gas and clean coal—to generate electricity. Noteworthy examples include the FPL Group, the nation's largest wind power generator, AEP and Cinergy, which are moving forward with plans to build commercial-scale integrated gasification combined cycle (IGCC) power plants, and Edison International which is partnering with BP to build the nation's first hydrogen fueled power plant, with most of the CO_2 being captured and stored underground. Lower scoring utilities remain committed to traditional forms of coal-fired generation and are less focused on demand-side management programs.

Auto Industry *(Average score: 47.9 points)*

Auto companies had the highest average Board score, and tied with the chemical industry for the highest average Management score. They also had the third highest Disclosure score.

- **Top Board and Management scores:** Automakers recognize that policies to address climate change pose risks to the industry, which remains dependent on petroleum and is one of the fastest growing sources of CO_2 emissions. Many companies have task forces to coordinate board and executive level actions, and include climate change in strategic planning. Ford recently issued the industry's first stand-alone report examining the business impacts of the climate issue.
- **High Emissions Accounting scores:** Auto companies have developed reliable and consistent systems to measure emissions from their operations. GM has been tracking its GHG emissions since 1990 and has been a leader in setting targets and recording savings from its global facilities. However, GM, Ford and other auto companies have backed away from estimating carbon emission footprints resulting from the operation of their products, which is a far greater source of emissions.
- **Above-average Strategies scores:** Japanese automakers have long held the lead in developing fuel-saving technologies. Honda's product line has the highest fleet fuel economy average, while Toyota has established itself as the leader in gasoline-electric hybrids. Ford is developing multiple advanced fuel technologies and has two hybrid models on the market. GM has spent more than $1 billion on fuel cell research and recently expanded its offerings of flexible fuel vehicles that run on E85 ethanol. European automakers lead in diesel engine technology, which offers fuel economy advantages over gasoline-powered engines.

Middle Scoring Industries

Industrial Equipment Industry *(Average score: 42.3 points)*

Industrial equipment companies tied with chemical companies for the highest average Strategies score, but had weak Board scores.

- **Top Strategies scores:** Industrial equipment manufacturers are in a strong position to reduce GHG emissions with technologies that are energy efficient and use alternative energy sources. The highest scores were posted by General Electric, ABB and United Technologies, which are major providers of efficient power plants and distributed energy systems.
- **Above-average Management scores:** Environmental and sustainable development issues are becoming a higher management priority at these companies, since most of the products they produce are very energy intensive and a major source of emissions. Below-average Board scores occurred because equipment manufacturers serve many "smokestack industries" that until recently have placed little emphasis on reducing GHG emissions. Limited board action may reflect the involvement of these other industries as board members and primary customers.

Metals and Mining Industry *(Average score: 42.2 points)*

This industry had above-average overall scores, led by aluminum producers Alcan and Alcoa. U.S. steel companies had among the lowest average industry scores.

- **Above-average board and Management scores:** Metals and mining companies face a constant sustainable development challenge of producing affordably priced products as natural resources are depleted. Alcan created an executive-level team in 2001 to incorporate energy efficiency and GHG reduction goals throughout the company.
- **Above-average Emissions Accounting and Strategies scores:** Changes in manufacturing processes, more efficient energy use and expanded resource recovery programs have enabled many companies to reduce GHG emissions considerably, including a 25 percent reduction at Alcoa facilities since 1990.
- **High scores for Aluminum producers:** Aluminum producers believe that aluminum use in transportation and recycling of primary aluminum can have substantial positive impacts in reducing GHG emissions. Alcoa has set a goal to make 50 percent of its products from recycled aluminum by 2020. Alcan and Alcoa believe the aluminum industry can become carbon neutral by 2020.

Forest Products Industry *(Average score: 37.6 points)*

Forest product companies had relatively strong Board, Management and Strategies scores, but weak Disclosure scores.

- **Above-average Strategies scores:** Forest product companies manage vast terrestrial carbon 'sinks' through the forests they grow, putting them in an advantageous position if they can manage their resources sustainably. Biomass energy, which is carbon neutral, is the primary power source for most of these forest products companies. International Paper was the first company in this industry to join the Chicago Climate Exchange, a voluntary GHG trading market.
- **Average Board and Management scores:** Company leadership has focused on energy efficiency and fuel-switching to reduce GHG emissions, but less attention has been devoted to climate-related product opportunities and physical risks.
- **Below-average Disclosure scores:** Forest product companies face comparatively high risks from the physical effects of climate change, such as increases in wildfires, windstorms and pest infiltrations, as well as migration of tree species away from forests they own or manage. Company disclosure on these potential risks is very weak.

Oil and Gas Industry *(Average score: 34.8 points)*

Oil and gas companies had the widest disparity of responses, with European companies showing strong leadership and many U.S. companies lagging behind, especially U.S. oil refiners and natural gas distributors.

- **Wide variations on Board, Management and Emissions Accounting scores:** The three highest scoring companies—BP, Royal Dutch Shell and Statoil—distinguish themselves with strong Board and Management involvement on climate issues. BP and Royal Dutch Shell are the only two companies that have set long-term GHG reduction goals and measure emissions from customer use of products. Statoil stands out for emitting only 40 kilograms of CO_2 per unit of production, compared to the industry average of 130 kilograms, and for its efforts (along with BP and Shell) to demonstrate carbon sequestration to enhance oil recovery.
- **Wide variations on Strategies scores:** BP and Royal Dutch Shell have made major financial commitments to alternative energy sources, such as solar, wind and hydrogen. Among U.S. firms, Chevron is investing over $100 million a year in low-carbon technologies, while ExxonMobil has dismissed wind and solar power as being "inconsequential."
- **Low scores for U.S. natural gas producers:** Natural gas-focused firms such as Burlington Resources, El Paso and Williams have done little to examine the climate issue. Such companies stand to benefit from CO_2 regulations that favor clean-burning, lower-carbon domestic energy sources.

Low Scoring Industries

Coal Industry *(Average score: 21.4 points)*

- **Well-below average scores in four of five governance areas:** Coal is the most carbon-intensive fuel source, accounting for 36% of the nation's CO_2 emissions (including coal burned to generate electricity). The coal industry arguably has more at stake in addressing climate change than any other industry. Yet many companies' governance responses have been limited or nonexistent.
- **Near-average Disclosure score:** As with domestic natural gas suppliers, domestic coal producers have a narrow geographic focus and one main delivery option. Unlike gas producers, however, coal companies stand to lose much more as a result of carbon emission constraints. Most companies acknowledge that GHG regulations could adversely affect power-sector demand for coal, but otherwise choose to downplay or ignore the issue.
- **Well-below Strategies score:** The primary strategy being pursued (especially by larger coal companies) is support of research on technologies to gasify coal and store carbon dioxide emissions underground. Companies pursue this research in conjunction with government energy agencies and electric utilities. However, carbon sequestration technologies have yet to be proven technologically and commercially. Coal-bed methane recovery is another important, but more limited, commercial option.

Food Products Industry *(Average score: 17.6 points)*

- **Lowest Disclosure score:** Although several leading food products companies acknowledge the threat posed by climate change to food-based raw materials and water resources, few have articulated a strategy to address this threat. Leading companies like Unilever are at least focused on the issue.
- **Low Emissions Accounting score:** While food products are not GHG-intensive, food processing is relatively energy intensive. Many food products companies have taken steps to make their operations more energy efficient. Leading companies like Unilever and Nestle have also focused on GHG emissions from product packaging and refrigeration systems.
- **Low Strategies score:** Some food products companies like ADM and Bunge develop feedstocks for ethanol-based transportation fuels. Biomass fuels could be a boon to the agricultural industry, However, CO_2 benefits will come mainly from cellulosic sources (like grasses) that are nearly carbon neutral, rather than corn-based ethanol, which provides about a 20 percent savings in GHG emissions relative to gasoline.

Air Transport *(Average score: 16.6 points)*

- **Lowest average score in four of five governance areas:** Aircraft are among the world's fastest growing sources of CO_2 emissions, expected to reach 5 percent of global CO_2 emissions by 2020. Emissions improvements are largely outside of the companies' control, however, and depend on advances in engine and airframe design, and improvements in airport and air traffic management systems.
- **Low Management scores:** Airline profitability is largely dependent on managing fuel costs, giving these companies a built-in incentive to improve the fuel efficiency of their operations. This suggests that many companies have an indirect focus on reducing GHG emissions that may not be reflected in these scores.
- **Higher scores for freight carriers:** Freight carriers have large ground delivery fleets, with GHG management options available through logistics and fuel alternatives. Passenger carriers are more dependent on GHG reductions available through logistical changes in government-controlled air traffic management systems.

Company Scores (by Industry)

Energy sector

Oil and gas: Petroleum fuels and natural gas are the largest sources of carbon dioxide (CO_2) emissions in America, accounting for 58 percent of the nation's total CO_2 emissions. (Petroleum's share is 42 percent; natural gas is 16 percent). Petroleum and natural gas account for the following percentages of CO_2 emissions by sector:

Transportation—100 percent
Industrial—51 percent
Residential—31 percent
Commercial—22 percent

These figures exclude petroleum and natural gas used for electric power generation. (Including power generation, petroleum and natural gas account for 64 percent of the nation's CO_2 emissions.)

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
BP	9	16	13	23	29	**90**
Royal Dutch	7	15	7	23	27	**79**
Statoil	10	13	12	15	22	**72**
Total	6	15	12	13	16	**62**
Chevron	7	10	5	17	18	**57**
Anadarko	5	8	9	11	6	**39**
Sunoco	2	5	7	17	8	**39**
Amerada Hess	4	6	5	12	8	**35**
ConocoPhillips	3	5	7	9	11	**35**
ExxonMobil	5	5	5	12	8	**35**
Marathon	3	4	3	10	6	**26**
Occidental	5	2	4	11	3	**25**
Valero	1	3	3	9	8	**24**
Apache	3	6	2	6	5	**22**
Tesoro	6	4	0	3	2	**15**
Burlington	1	2	1	4	5	**13**
Devon Energy	0	1	1	6	3	**11**
El Paso	3	1	1	3	1	**9**
Murphy Oil	3	1	0	1	1	**6**
Williams	0	0	0	1	2	**3**
Average	**4.15**	**6.1**	**4.85**	**10.3**	**9.5**	**34.8**

Electric power: Electricity is the nation's second largest source of CO_2 emissions, accounting for 39 percent of total CO_2 emissions. Fossil fuel inputs for electricity are coal (51 percent of the fuel mix), natural gas (13 percent) and oil (3 percent). Nuclear power and renewable energy sources make up the balance of the electricity supply. Electricity generation accounts for the following percentages of CO_2 emissions by sector:

Transportation—0 percent
Industrial—38 percent
Residential—69 percent
Commercial—77 percent

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
AEP	10	11	12	19	21	**73**
Cinergy	9	16	13	19	16	**73**
Entergy	4	11	12	21	17	**65**
Exelon	8	14	11	15	15	**63**
Calpine	4	9	11	11	20	**55**
PG&E	6	12	9	17	10	**54**
Xcel Energy	7	11	10	13	12	**53**
Edison Int'l	4	10	8	14	15	**51**
TXU	7	6	10	18	10	**51**
DTE	8	8	9	11	14	**50**
FirstEnergy	7	8	9	17	9	**50**
FPL Group	3	11	9	17	9	**50**
Southern	7	7	8	17	10	**49**
Duke	5	10	8	13	11	**47**
Progress	7	9	6	8	6	**36**
AES	3	9	5	7	10	**34**
Sempra	1	3	2	9	9	**24**
Dominion	1	2	8	11	5	**27**
Constellation	3	1	6	5	8	**23**
Average	**5.5**	**8.9**	**8.7**	**13.7**	**11.7**	**48.5**

Coal: Coal is the nation's third largest source of CO_2 emissions (excluding coal for electricity). Direct use of coal accounts for 11 percent of industrial CO_2 emissions and 3 percent of the nation's total CO_2 emissions. Coal for electricity accounts for another 33 percent of the nation's CO_2 emissions. When including coal for electricity, coal accounts for 36 percent of nation's CO_2 emissions, second only to petroleum.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
Rio Tinto	7	11	10	16	13	**57**
Peabody	1	2	5	7	8	**23**
CONSOL	0	3	5	3	3	**14**
Arch	0	2	4	0	2	**8**
Foundation	0	0	3	0	2	**5**
Average	**1.6**	**3.6**	**5.4**	**5.2**	**5.6**	**21.4**

Manufacturing sector

Metals and mining: This industry sector includes primary metals (such as steel, aluminum and copper), nonmetallic mineral products (such as concrete, lime and gypsum) and fabricated metal products (such as steel and iron foundries). This industry is among the nation's most energy- and carbon-intensive in terms of CO_2 emissions per dollar of shipment. The aluminum industry is a major emitter of greenhouse gases, particularly perfluorocarbons (PFCs), gases that have a global warming intensity over 6,000-times that of CO_2.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
Alcan	9	15	11	20	22	**77**
Alcoa	6	16	6	22	24	**74**
Nippon Steel	7	12	7	18	23	**67**
BHP Billiton	6	12	12	16	17	**63**
Anglo Amer.	5	12	7	15	17	**56**
Newmont	3	2	6	8	5	**24**
Nucor	3	2	3	3	10	**21**
U.S. Steel	3	7	4	1	5	**20**
Mittal Steel	2	2	4	2	4	**14**
Phelps Dodge	3	1	2	0	0	**6**
Average	**4.7**	**8.1**	**6.2**	**10.5**	**12.7**	**42.2**

Chemicals: This industry sector includes basic chemicals (such as acids, salts and organic chemicals), chemical products (such as synthetic fibers, plastics materials and pigments) and finished chemical products (such as paints, fertilizers and explosives). Overall, the chemical industry is the second largest industrial user of energy, after petroleum refining.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
DuPont	8	16	12	21	28	**85**
Bayer	8	11	8	21	23	**71**
ICI	9	10	10	16	15	**60**
BASF	9	11	7	15	17	**59**
Dow Chemical	4	10	12	16	17	**59**
Air Products	4	11	6	11	17	**49**
Praxair	5	8	5	13	12	**43**
Rohm & Haas	7	6	10	10	7	**40**
Monsanto	4	2	5	12	9	**32**
PPG	1	5	2	3	10	**21**
Average	**5.9**	**9.0**	**7.7**	**18.8**	**15.5**	**51.9**

Paper and wood products: This industry sector includes pulp and paper mills, paperboard containers and products, logging, sawmills and structured wood products. Overall, the forest products industry is the third largest industrial consumer of energy. It is especially vulnerable to the physical effects of climate change.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
Int'l Paper	6	9	6	12	16	**49**
Abitibi	6	7	5	11	16	**45**
Weyerhaeuser	2	7	7	10	9	**35**
MeadWestvaco	4	7	4	8	8	**31**
Georgia-Pacific	2	7	5	6	6	**26**
Average	**4.0**	**7.4**	**5.4**	**9.4**	**11.0**	**37.2**

Food Products: This industry sector includes meat and dairy products, grain and sugar products, and fats and oils. Overall, the food industry consumes as much energy as the nonmetallic minerals industry and twice as much energy as the wood products and transportation equipment industries. It is also especially vulnerable to physical effects of climate change.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
Unilever	6	8	8	15	12	**49**
Nestle	2	6	3	10	8	**29**
General Mills	3	3	4	8	4	**22**
ADM	0	0	0	2	10	**12**
Altria	2	2	1	5	1	**11**
PepsiCo	0	3	3	2	1	**9**
Bunge	0	1	1	1	2	**5**
ConAgra	0	3	0	0	1	**4**
Average	**1.6**	**3.6**	**5.4**	**5.2**	**5.6**	**21.4**

Industrial equipment: This industry sector includes power generation, motors and generators, appliances and lighting. Although the industry is not a large consumer of energy in manufacturing, its products are large users of petroleum and electricity.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
GE	5	12	9	12	20	**58**
ABB	4	10	7	13	20	**54**
UTC	6	13	5	12	16	**52**
Hitachi	2	7	6	18	18	**51**
Mitsubishi	1	5	5	15	19	**45**
Siemens	4	8	4	9	15	**40**
Caterpillar	3	3	2	7	12	**27**
Deere	1	2	3	4	4	**14**
Average	**3.2**	**7.5**	**5.1**	**11.2**	**15.5**	**42.5**

Transportation Sector

Motor vehicles: This industry sector includes passenger cars and trucks. Although this industry is not a large consumer of energy in manufacturing, its products are the largest consumers of petroleum, accounting for 20 percent of the nation's total CO_2 emissions.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
Toyota	9	14	10	14	18	**65**
Honda	9	13	7	13	20	**62**
Ford	9	13	12	12	12	**58**
GM	6	8	8	17	13	**52**
Daimler	5	8	8	14	8	**43**
Volkswagen	4	9	7	9	8	**37**
BMW	5	3	7	14	6	**35**
Nissan	6	5	4	10	8	**33**
Average	**6.5**	**9.0**	**7.9**	**12.9**	**11.6**	**47.9**

Air Transport: This industry sector includes freight and passenger airlines. The airline industry accounts for 13 percent of transportation emissions and more than 4 percent of the nation's total CO_2 emissions. Along with motor vehicles, aircraft are among the nation's fastest growing sources of emissions. In 1999, transportation emissions surpassed industrial emissions as the nation's largest source of CO_2 emissions.

Company	Board	Mgmt.	Disclosure	Emissions	Strategies	Total
Maximum	*12*	*18*	*14*	*24*	*32*	*100*
UPS	3	4	6	10	7	**30**
British Airways	0	9	7	5	6	**27**
Air France	1	2	6	11	3	**23**
FedEx	0	3	3	6	6	**18**
AMR	0	2	2	0	5	**9**
Southwest	0	1	2	0	3	**6**
UAL	2	0	0	0	1	**3**
Average	**0.9**	**3.0**	**3.7**	**4.6**	**4.4**	**16.6**

Corporate Governance Profiles

Chemicals

Air Products & Chemicals Inc.

NYSE: ***APD***
Industry: ***Chemicals***

Air Products & Chemicals says the potential risks posed by climate change will depend on the degree to which government policies, mandates and taxes affect energy prices, the world economy and the company's diverse customer base. The company has a Greenhouse Gas Strategy team and a business portfolio with certain defensive characteristics that it says should help minimize these risks. It tries to contractually limit its exposure to swings in energy and raw material prices. Moreover, the company believes it has the competencies and skills that will allow it to participate beneficially in technologies related to abating climate change. These include enabling technologies for hydrogen, gas-to-liquids and liquefied natural gas, carbon capture and storage, and high-efficiency light-emitting diodes (LEDs), as well as technologies that improve the operating efficiency of fossil energy combustion systems.

Summary Score: 49

Company Information

Air Products & Chemicals serves customers in healthcare, technology, energy and industrial markets worldwide, providing atmospheric gases, process and specialty gases, performance materials and chemical intermediates. The company operates in more than 30 countries and has built leading positions in markets such as semiconductor materials, refinery hydrogen, home healthcare services, natural gas liquefaction and advanced coatings and adhesives. It had sales of $8.1 billion in fiscal 2005.

Contact Information

CEO / Chairman	John P. Jones III
Contact	Tel: 610-481-4911 • Web: www.airproducts.com
Address	7201 Hamilton Blvd Allentown, PA 18195-1501 USA

Board Oversight

Score: 4

Board Committee	Environmental, Safety and Public Policy Committee
Committee Chair	Ursula Fairbairn, CEO of the Fairbairn Group (specializing in human resources and executive management consulting)
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 11

Chairman Statement	*From 2004 annual report:* "With our expertise in developing technologies that produce cleaner energy and improve energy efficiency, we will continue to help our customers address climate change concerns."
Chief Environmental Officer	Larry W. Allen, Vice President, Environment, Health, Safety & Quality
Levels to CEO	1
Climate Change Executive	Larry Allen Allen and two other company representatives also participate in the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Greenhouse Gas Strategy Team Air Products' Energy and Process Industries Strategic Business Unit (SBU), led by Vice President and General Manager Scott Sherman, coordinates the company's response to climate change issues through its GHG Strategy Team. This cross-functional team acts as a focal point for the company to develop and facilitate implementation of GHG strategies on both a corporate and organizational level. The team identifies and monitors external forces/drivers (political, commercial and environmental), assesses the potential impacts to the company and its customers, and works with appropriate parties to develop optimal strategies. Targeted benefits of the GHG Strategy Team include integrated corporate strategies, clear positioning with customers, shareholders and employees, more sustainable and advantaged SBU's and new business opportunities.
Link to Executive Compensation	The company told IRRC in 2003: "EH&S performance is one of the criteria reviewed annually in every employees performance assessment," including executive staff.

Air Products & Chemicals Inc.

NYSE: ***APD***
Industry: ***Chemicals***

Public Disclosure

Score: 6

Company Statement

From 2005 response to Carbon Disclosure Project:

"We continue to believe it is very important to understand the Greenhouse Gas (GHG) footprint of our key business areas as well as how climate change issues will impact us and our customers. This understanding is critical to managing commercial risks and seizing upon new business opportunities that arise from responses to external climate change policy drivers. The climate change issue will increase demand for technologies that produce cleaner fuels, facilitate alternate fuel source development, and improve energy efficiency. Air Products has built a reputation as a worldwide leader in the development and supply of innovative energy technologies and as a leader in the efficient use of power and natural gas. Climate change concerns are already providing Air Products with numerous business opportunities."

Securities Filings Statement: None identified.

Company Report: *"Passionate About…" 2004 Corporate Responsibility Annual Report*

GRI Report: None.

Carbon Disclosure Project: Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 11

Savings Calculated by Company

Amount: 480,000 tonnes of CO_2e annually ***Scope:*** Project level
Time frame: 2002–2004

The company's efficiency engineers constantly monitor the performance of their major energy-intensive operations. It has completed numerous global energy efficiency projects resulting in an estimated 26 MW of power savings in 2002, 29 MW in 2003 and 25 MW in 2004. This is equivalent to the power consumed by 80,000 average homes, equivalent to avoiding 480,000 tons of CO2 emissions annually.

GHG Emissions Inventory

2004 Amount: 18,000,000 tonnes of CO_2e ***Region:*** Global

Air Products' direct emissions total 10 million tons of CO_2e; CO_2 emissions account for about 93% of total direct GHG emissions. The remaining 7% is CO_2e of certain specialty gases. The majority of the company's CO_2 emissions result from the use of natural gas at hydrogen/carbon monoxide (HyCO) production facilities and fossil fuel combustion at combined heat and power (CHP) facilities. Air Products' 8 million tons of indirect GHG emissions come mainly from the purchase of electricity for its manufacturing, research and office operations. The only secondary emissions reported are those associated with consumption of aviation fuel for its corporate aircraft; it does not include other secondary activities such as employee business travel

Third Party Verification: No.

Reporting Protocol: GHG Protocol (as of 2006).

Strategic Planning

Score: 17

Emissions Targets: None identified.

GHG Emissions Trading

Voluntary programs—Air Products has made a purchase of emission credits through the U.K. Emissions Trading Scheme.

Government programs—Air Products has established a cross functional team that has assessed the implications of the E.U. Emissions Trading Scheme. The company has a small number of on-site energy generation facilities that fall directly under this scheme. These are high efficiency plants (integrated boilers and cogeneration facilities) for which the impact of the emissions trading scheme has been minimal; their emissions total 0.5 million tons per year. Air Products has been involved in all aspects of E.U. regulations, country-based voluntary GHG reduction schemes within the E.U., and energy tax incentive regulations such as the Dutch 'covenant' system and U.K. Climate Change levy.

Green Power: None identified.

Air Products & Chemicals Inc.

NYSE: ***APD***
Industry: ***Chemicals***

Strategic Planning	*(continued)*
Energy Efficiency	Over the last two decades, Air Products has seen its energy use per unit of oxygen and nitrogen production decrease by more than 35%. Air Products has reduced its global power consumption by 80 megawatts in 2002–2004—equal to 480,000 tons of annual CO_2 emissions. Facilities use new technology to reduce energy usage at times when suppliers are at peak demand by loading up production at other times, creating more energy efficiency. Air Products' larger hydrogen plants function as cogeneration facilities. In addition to producing hydrogen, steam is often produced and exported to a nearby user. The energy efficiency of these hydrogen plants is more than 85% of what is theoretically achievable, exceeding the 60% efficiency level typical of modern natural gas-fired combined cycle turbine power plants.
Commercial Business: ***Hydrogen***	Air Products believes the world is moving toward a hydrogen-based economy. The company says it is the global leader in the development of hydrogen infrastructures, including hydrogen fueling stations, hydrogen pipelines, localized hydrogen production from natural gas, ship and tanker distribution networks, and specialized renewable sourced hydrogen generation. It operates more than 60 HyCO (hydrogen and hydrogen/carbon monoxide synthesis gas) plants and 650 miles of HyCO pipeline systems worldwide.
Gas-to-liquids	Air Products is involved in gas-to-liquids (GTL) and liquefied natural gas (LNG) technologies that enable economic recovery and use of natural gas reserves located in remote areas not accessible to pipelines. The vast majority of the world's LNG capacity is made using its technology and exchangers. This is an expected growth area because natural gas is viewed as a bridge fuel, playing a significant role in the 21st century transition to a post-fossil fuel economy. To make future GTL technology more economical and energy efficient, Air Products leads a joint industry and university team, with co-funding from the U.S. Department of Energy, to develop ceramic ion transport membrane technology, known as the ITM Syngas process, for the production of synthesis gas. Synthesis gas, a mixture of hydrogen and carbon monoxide, is a key chemical building block used in the production of clean liquid transportation fuels and of hydrogen that can be used as a carbon-free fuel for fuel cells and power generation. In 2004, Air Products saw a breakthrough in liquefaction technology with the introduction of the AP-X™ process, which is capable of producing 50% more LNG product in a single train process.
Carbon capture and storage	Air Products is a technology developer and provider for the CO_2 Capture Project (CCP), which is an international effort by seven of the world's leading energy companies. This project seeks to develop new technologies to reduce the cost of capturing CO_2 from combustion sources and safely storing it underground. Such technology could spur development of clean coal technologies, such as integrated gasification combined cycle
PFC substitution	Air Products manufactures nitrogen trifluoride (NF3) that replaces the use of perfluorocarbons (PFC) in the semiconductor industry and results in a significant reduction in GHG emissions, ranging up to 85% in chamber-cleaning processes. The U.S. EPA named Air Products one of 20 winners of its Climate Protection Awards for helping transition away from PFCs by expanding its NFC production capacity by 50% to meet continued market demand.
LED lighting	Air Products is a leading supplier of high-volume, ultra-high purity White Ammonia to serve growing end-use market applications such as Light Emitting Diodes (LEDs), which are long lived and lower power consumption solutions for many existing lighting applications. LEDs are rapidly replacing incandescent lighting in traffic signals, holiday lighting and other applications because they consume 80–90% less electricity. In addition, Air Products is developing oxygen combustion technology that will cleaner and more efficient power generation, steel, glass and aluminum production, and municipal waste generation

BASF AG

NYSE: ***BF***

Industry: ***Chemicals***

BASF's vice chairman serves as the company's chief environmental officer and heads a Sustainability Council comprised of presidents of eight operating divisions. BASF is an advocate of climate protection and adoption of the Kyoto Protocol. It is active in greenhouse gas trading mechanisms through its a GHG trading unit. BASF has set a goal to reduce its GHG emissions by 10% per tonne of product sales in 2002–2012, largely through investments in more energy efficient production processes. It also makes heat insulation materials, fuel additives, plastics for automotive engineering and other products that contribute to substantial reductions in CO_2 emissions. BASF publishes an annual sustainability report that addresses these issues.

Summary Score: 59

Company Information	
	BASF is the world's largest chemical company, with more than 100 manufactuing facilities around the world. BASF is involved in five major business segments: plastics, performance products, basic chemicals, oil and gas exploration and production, and agricultural products and nutrition. It had sales of $51.6 billion in 2004.
Contact Information	
CEO / Chairman	Dr. Jurgen Humbrecht
Contact	Tel: 49-621-60-482 • Web: www.basf.com
Address	Carl Bosch Strasse 38 Ludwigshafen, Germany 67056 Germany
Board Oversight	***Score: 9***
Board Committee	Board of Executive Directors
Committee Chair	Eggert Voscherau, Vice Chairman, Board of Executive Directors
Actions Taken	The Sustainability Council, chaired by Voscherau, oversees the development of company policies on climate change and related GHG controls. Board member Klaus Peter Löbbe is a member of Columbia University Global Roundtable on Climate Change, which brings together more than 150 stakeholders from across the world, to reach consensus on global climate change issues.
Management Execution	***Score: 11***
CEO Statement	*From 2004 annual report:* "Immense research efforts are needed to solve the major challenges of the future, which include nutrition, energy, raw materials and climate change. Investment in such research is no guarantee of future profits, but our future depends on it, and these expenses are largely borne by research-intensive companies—companies like BASF." Chairmain Humbrecht also said in February 2005, "Global climate protection needs global efforts. We will be able to reach the Kyoto goals only if the global community joins forces and spreads the load fairly." He said that BASF supports the aims of the Kyoto Protocol and that it has already "considerably reduced GHG emissions through voluntary commitments." He also said its products and technologies allow GHG emissions reductions from vehicles and households.
Chief Environmental Officer	Eggert Voscherau, Vice Chairman, Board of Executive Directors
Levels to CEO	0
Climate Change Executive	Eggert Voscherau
Executive Committee	Sustainability Council This council is comprised of eight "presidents" from different operating divisions of the company and reports directly to Voscherau.
Link to Executive Compensation	None identified.

BASF AG

NYSE: ***BF***
Industry: ***Chemicals***

Public Disclosure

Score: 7

Company Statement

From company website:

"The BASF Group supports the Kyoto target of reducing all [GHG] in industrialized countries by 5.2%… BASF is an advocate of active climate protection. Here, the successful voluntary agreements of industry are the priorities of choice. The voluntary agreements guarantee companies flexibility. This is a basic condition for sustainability, in other words a balanced relationship between the economy, the environment and society. In the interests of the industrialized countries and those employed in them, it is necessary to refocus on the Kyoto Agreement.

"BASF is in favor of emissions trading at the state level as is provided for in Kyoto. This trading must include project-related measures for reducing [GHGs] in industrialized and developing countries, i.e. Joint Implementation and Clean Development Mechanisms. This will give European industry the flexibility that it needs to be able to assert itself internationally and safeguard jobs in Europe in the long term; climate protection can continue to be successfully practiced by voluntary agreements, and a real reduction in [GHGs] can be achieved. The European Commission completely fails to take account of economic and employment problems that would arise if there was company-related emissions trading."

Securities Filings Statement: None identified

Company Report: *Shaping the Future: Corporate Report 2004*

GRI Report: See above (in accordance).

Carbon Disclosure Project: Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 15

Savings Calculated by Company

Amount: 500,000 tonnes of CO_2e ***Scope:*** Project level (Cogeneration plants)
Time frame: By 2006 (baseline undefined)

Amount: 230,000 tonnes of CO_2e ***Scope:*** Project level (Acrylic acid production)
Time frame: Not defined

See Energy Efficiency and Commercial Business for more information on these savings.

GHG Emissions Inventory

2004 Amount: 27,577,000 tonnes of CO_2e ***Region:*** Global
2002 Amount: 24,714,000 tonnes of CO_2e ***Region:*** Global

BASF's attributes the growth in emissions in 2002–2004 to increased production and inclusion of additional CO2 emissions from chemical processes.

2004 Amount: 0.8849 tonnes of CO_2e per sales product ***Region:*** Global (intensity rate)
2001 Amount: 0.9476 tonnes of CO_2e per sales product ***Region:*** Global (intensity rate)

Product footprint: BASF's eco-efficiency analysis compares economic and ecological advantages and disadvantages across several product or process solutions, which can fulfill the same end-use function for customers. This analysis includes a total cost determination and the calculation of ecological impact over the entire lifecycle, including GHG emissions. Under BASF's eco-analysis, a product is described in five categories: consumption of raw materials, consumption of energy, emissions into air, water and soil (wastes), toxic potential of the substances used and released, and potential for misuse and hazard.

Third Party Vertification: Yes. BASF's monitoring and reporting system under the E.U. Emissions Trading Scheme is verified by the German TUV and approved by national authorities. In addition, BASF's Corporate Report was third-party audited by Deloitte Environmental & Sustainability Assurance, which analyzed the company's gathering of data and reporting procedures.

Reporting Protocol: GHG Protocol.

BASF AG

NYSE: ***BF***
Industry: ***Chemicals***

Strategic Planning		***Score: 17***
Emissions Targets	***Baseline year:*** 2002 ***Target year:*** 2012 ***Region:*** Global (intensity rate) ***Amount:*** 10% decrease in CO_2e emissions per sale of product by facility	
GHG Emissions Trading	***Voluntary programs***—BASF participates in the World Bank's Community Development Carbon Fund, through which companies can record CO_2 reductions by implementing projects that reduce GHG emissions in developing countries. ***Government programs***—BASF has a Greenhouse Gas Trading unit that is globally responsible for coordinating GHG trading activities. The unit develops strategic recommendations for and with the support of the worldwide active business units, sites and subsidiaries. This includes Carbon Finance as well as other activities related to the Kyoto Protocol, the E.U. Emissions Trading Scheme and national implementation of these conventions and regulations.	
Green Power	A solar installation at a BASF site in Thane, India, heats 20,000 liters of water a day for production processes, saving around 44 tonnes of fossil fuels annually. BASF is also studying the feasibility of geothermal energy.	
Energy Efficiency	BASF's strategy for energy efficiency is based the five pillars: generating energy from the Verbund method, generating energy from cogeneration plants, using specific energy-efficient processes in production, producing energy-efficient products and using renewable energy. The Verbund approach links production and energy requirements with primary energy sources to produce electricity and steam as efficiently as possible while minimizing consumption of raw materials. In 2004, waste heat from production processes was used to generate 48% of BASF's global steam requirements, cutting its primary energy demand nearly in half. In 2001–2004, BASF reduced its specific primary energy demand for the steam and power supply of its process plants by 17%, from 6.1 gigajoules/ ton of sales product to 5.3 GJ/ ton of sales product. The company currently operates 11 gas turbine or combined heat and power plants across the globe, with a few more under construction. The turbines will generate 3.5 times more electricity per tonne of steam than a conventional cogeneration power plant, and will lower CO_2 emissions by more than 500,000 tonnes annually from 2006 onward.	
Commercial Business: ***Sustainable products***	BASF says it provides "innovative ideas and sustainable products, which— considered over the whole life span—help to protect the climate and solve the CO_2 problem in relation to private households." Examples include heat insulation materials, fuel additives and plastics for automotive engineering. BASF estimates that its heat insulation products reduced CO_2 emissions by 138 million tonnes in 2003 and that its fuel additives reduced CO_2 emissions by 22 million tonnes in 2003.	
Catalysts	BASF is improving catalysts for stationary fuel cells to make conversion of natural gas to hydrogen more efficient, cost effective and reliable over longer periods. Other catalysts are improving the efficiency of production of acrylic acid, a precursor for superabsorbents used in diapers. BASF estimates that its methods for producing acrylic acid are cutting CO_2 emissions by 230,000 tonnes a year.	
Phase-change materials	BASF is also developing phase change materials (PCMs) made out of microscopic wax particles that absorb heat and can be incorporated into building materials such as plasters, panels, fillers or wood-based materials. The thermal capacity of two centimeters of its patented Micronal plaster has the same insulating value as a 20-centimeter-thick hollow brick wall.	

Bayer AG

NYSE: ***BAY***
Industry: ***Chemicals***

Bayer's vice chairman of the Group Management Board oversees the company's environmental affairs and has endorsed greenhouse gas emission reduction targets that commit Bayer to reducing its GHG emissions by 50% in 1990–2010. The company has an executive climate change task force, is actively engaged in GHG emissions trading and has a working group on "renewable raw materials." As of 2004, Bayer had reduced its GHG level by 63% through investments in energy efficient technologies, changes in manufacturing processes and divestments of certain businesses. The company's "Eco-Check" program includes a life-cycle evaluation of its products, including GHG emissions. Progress toward the company's environmental goals is included in a sustainability report.

Summary Score: 71

Company Information

Bayer is an international company whose primary business includes health care products, diagnostic equipment and pharmaceuticals), agricultural products (crop protection and animal health), and specialty materials (plastics, synthetic rubber). It had sales of $40.3 billion in 2004.

Contact Information

CEO / Chairman	Werner Wenning
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Board Oversight

Score: 8

Board Committee	Corporate Sustainability Board
Committee Chair	Udo Oels, Bayer Vice Chairman, Innovation, Technology & Environment
Actions Taken	The Corporate Sustainability Board is responsible for making decisions on objectives, strategy and major initiatives and communicating about sustainable development and corporate responsibility. The board's work is is supported by the Sustainable Development Planning Group, an interdisciplinary team comprising the heads of relevant functions at the subgroups and staff from various Corporate Center departments. Oels, who chairs this board, endorsed the company's GHG reduction targets in 2002.

Management Execution

Score: 11

CEO Statement	None identified.
Chief Environmental Officer	Udo Oels
Levels to CEO	0
Climate Change Executive	The ecology units of the subgroups and service companies of the Bayer Group have their own specialist competences in climate protection.
Executive Committee	Exchange Forum on Climate Policy/Climate Strategy. This group-wide executive forum addresses all matters related to climate change. It is led by the Governmental and Product Affairs Department, which is responsible for developing objectives, positions and strategies related to climate protection for the company as a whole. All major affected subdivisions and service units are represented in this forum. The work of this forum is under the direction of the Group Management Board responsible for Technology, Innovation and Environment.
Link to Executive Compensation	None identified.

Bayer AG

NYSE: ***BAY***
Industry: ***Chemicals***

Public Disclosure

Score: 8

Company Statement

From 2004 annual report:

"We… support the European climate policy, advocate an emissions trading system that does justice both to the interests of industry and to the need to protect the Earth's climate. Our own contribution to climate protection is exemplary: since 1990 Bayer has reduced direct [GHG] emissions from its facilities by more than 60 percent. We have achieved this by modifying processes, employing the latest technologies, closing down older facilities and using new power plants that burn gas instead of coal and are therefore more efficient and emit smaller amounts of pollutants. By cutting back [GHG] emissions by almost two thirds over the past 15 years, we have complied with the Kyoto Protocol and have already exceeded the 50% reduction that the Enquête Commission of the German parliament set as the target for 2020."

Securities Filings Statement: None identified.

Company Report: *Sustainable Development Report 2004*

GRI Report: See above (in accordance).

Carbon Disclosure Project: Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 21

Savings Calculated by Company

Amount: 4,000,000 tonnes of CO_2e (cumulative)
Scope: Project level (Adipic acid production) ***Time frame:*** 1993–2004

Production of adipic acid, an intermediate for fibers, plastics, coatings raw materials and coatings, produces large amounts of nitrous oxide (N_2O), a potent greenhouse gas. Since 1993, Bayer has invested in a two-stage process to break down N_2O and feed the available energy back into the production process, obviating the need for fossil fuels. In total, 14,000 tonnes of N_2O emissions have been avoided, equivalent to more than 4 million tonnes of CO_2.

Amount: 400,000 tonnes of CO_2e (cumulative)
Scope: Project level (Chlorine production) ***Time frame:*** 1993–2004

Production of chlorine has been converted from an energy-intensive electrolysis process to membrane technology process that requires 25% less electricity, reducing CO_2 emissions by 400,000 tonnes. The new process also eliminates production of mercury. Together with its partners, Bayer has also developed a hydrochloric acid electrolysis procedure for the production of chlorine that uses 30% less electrical energy. At the Brunsbüttel site, Bayer has successfully commissioned the first plants to operate using the new process.

GHG Emissions Inventory

2004 Amount: 4,200,000 tonnes of CO_2e (without Lanxess) ***Region:*** Global
1990 Amount: 15,000,000 tonnes of CO_2e

2004 Amount: 0.47 tonnes of CO_2e/tonnes of product ***Region:*** Global (intensity rate)
1990 Amount: 1.49 tonnes of CO_2e/tonnes of product ***Region:*** Global (intensity rate)

Product footprint: Bayer's Eco-Check program evaluates products, from production to incineration, in six categories: economy, health, environment, life cycle, technology and public value. An analysis of GHG emissions is included in the "life cycle" review of Eco-Check.

Third Party Vertification: Yes. The Bayer reporting system has been audited and certified by the management consultant Dr. Arnd Hardtke, in cooperation with Arthur D. Little.

Reporting Protocol: GHG Protocol, as adapted by Bayer.

Bayer AG

NYSE: ***BAY***
Industry: ***Chemicals***

Strategic Planning	***Score: 23***
Emissions Targets	***Baseline year:*** 1990 ***Target year:*** 2010 ***Region:*** Global ***Amount:*** 50% decrease in total CO_2e emissions ***Baseline year:*** 2000 ***Target year:*** 2005 ***Region:*** North America ***Amount:*** 10% decrease in CO_2 manufacturing emissions from facilities Bayer reduced its direct GHG emissions 63% in 1990–2004, exceeding this goal set for 2010. The company achieved these reductions through investments in energy efficient technologies and divestments of certain businesses that were producing significant amounts of GHGs. Bayer declared this target in 2000 as part of a report on Bayer's Perspective on Ecology, and it was publicly endorsed by a member of the Group Management Board responsible for Innovation, Technology and the Environment at the World Summit in Johannesburg, South Africa, in 2002. Bayer estimates that its investments in new technologies totals €700 million.
GHG Emissions Trading	***Voluntary programs***—In the U.S., Bayer is taking part in the Chicago Climate Exchange (CCX). During the pilot phase, participating companies pledge to reduce direct emissions of GHGs by 1% each year in 2003–2006, compared with the average value of emissions between 1998–2001. Bayer will also take part in the second phase of emissions trading of the CCX. ***Government programs***—For the E.U. Emissions Trading Scheme, Bayer has been granted almost a full quota of emissions allowances throughout Europe for the first trading period in 2005–2007. In Germany, Bayer has 10 plants that emit just under 3 million tonnes of CO_2. Six plants (which are responsible for around 90% of these emissions) are combined heat and power plants (CHP) that supply steam and electricity to the chemical divisions. The other four plants are heating stations, steam generation plants and plants belonging to Bayer subsidiaries. Bayer also has a facility in Spain and one in Belgium that is part of the benchmark covenant.
Green Power	Bayer has not made any commitments to purchase power from renewable energy sources. However, it is exploring ways to substitute biomass for crude oil in its production processes. A working group for "renewable raw materials" is investigating opportunities to increase the use of biomass in technical applications and is pooling its expertise with subgroups and service companies. This working group reports directly to the Technology, Innovation & Environment Coordination Board.
Energy Efficiency	Bayer has instituted more energy efficient manufacturing processes for production of adipic acid and chlorine. It also owns and operates combined heat and power stations to provide energy for its manufacturing processes, which burn natural gas in place of coal. The combination of fuel switching and more efficient energy production has enabled Bayer to cuts its energy demand by about 20% since 1998 and corresponding CO_2 emissions by nearly 50%.
Commercial Business	Bayer produces polyurethane to insulate buildings and refrigeration equipment. It estimates that it takes just one year for the heat energy saved by use of its insulating systems to compensate for the resources used in making polyurethane (including GHG emissions).

Dow Chemical Co.

NYSE: ***DOW***
Industry: ***Chemicals***

Dow Chemical has formed a Climate Change and Energy Policy Strategy Board to integrate climate change and energy efforts among the various Dow businesses, teams and functions. Dow has reduced its total GHG emissions by more than 25% since 1994, and it has improved its energy efficiency per unit of production by more than 20%. It is now working on a revised set of energy intensity goals for 2015, but has not set explicit GHG reduction targets. Dow has several teams of experts focused on emissions management, GHG emissions trading and offsets, and renewable energy development. Dow sells products that help others reduce GHG emissions, such as hydrogen fuel cells for industrial power systems, lightweight plastics for automobiles and insulation for energy efficient homes and appliances. Dow produces an annual sustainability report that includes GHG emission metrics.

Summary Score: 59

Company Information

Dow Chemical is a diversified, worldwide manufacturer of more than 3,500 basic and performance chemicals and plastics, and agricultural products that are primarily used by customers as raw materials to manufacture a diverse range of products, which serve numerous consumer markets. The company conducts its worldwide operations through global businesses, which are reported in six operating segments: Performance Plastics, Performance Chemicals, Agricultural Sciences, Plastics, Chemicals, and Hydrocarbons and Energy. It had sales of more than $40 billion in 2004.

Contact Information

CEO/Chairman	Andrew N. Liveris / William S. Stavropoulos
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Address	2030 Dow Ctr Midland, MI 48674-0001 USA

Board Oversight

Score: 4

Board Committee	Environment, Health and Safety Committee
Committee Chair	Jacqueline Barton, Professor of Chemistry, California Institute of Technology
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 10

CEO Statement

Remarks by Chairman Stavropolos in 1999 Dow corporate responsibility report:

"The world has seen huge economic growth over the last 50 years—nearly tripling global per capita income—yet, many developing economies are still struggling with meeting basic needs. At the same time, the global environment is facing new risks ranging from global climate change to depletion of natural habitats. Dow needs to provide solutions and it is our corporate responsibility to do just that. This Report is a reflection of our commitment to achieve greater balance and integration across the spectrum of economic, environmental and social needs, and to help raise the bar on public transparency."

Chief Environmental Officer	Larry Washington, Vice President, Sustainability, Environment, Health & Safety
Levels to CEO	0
Climate Change Executive	See team listings in Executive Committee.
Executive Committee	Global Climate Change Team and Emissions Policy Strategy Board. The Climate Change and Energy Policy Strategy Board aligns the activities of nine teams of experts, each of which focuses on a specific element of climate change and energy, including: regional strategy, site emissions management, emissions trading, GHG offsets, renewable energy, energy conservation & efficiency, business opportunities & new technology, climate change metrics and communications & advocacy. The Dow Global Climate Change Team coordinates its efforts with the Global Emissions Strategy Board. The Climate Change Team is sponsored by the Business President for Hydrocarbons and Energy, a member of Dow's senior management team. It was recently integrated with the Energy and Feedstocks Team to afford greater strategy integration, since energy policy and climate change policy are closely related at Dow. This newly combined team is led by a Business Director. Dow also has an EH&S Management Board and Corporate Environmental Advisory Council.
Link to Executive Compensation	None identified.

Dow Chemical Co.

NYSE: ***DOW***
Industry: ***Chemicals***

Public Disclosure

Score: 12

Company Statement — *From company website:*

"Dow believes that increasing atmospheric concentrations of [GHGs] is a cause for concern and warrants diligent efforts from all members of society, and all sectors, to reduce these emissions. Dow supports a balanced approach to reducing GHG emissions while sustaining economic growth and competitiveness.

" Dow is committed to contributing to the solution of climate change by developing and commercializing sustainable, climate friendly products and technologies, and by reducing our GHG emissions per unit of product.

"Dow has taken a leadership role globally to reduce GHG emissions and improve energy efficiency:

- Dow has realized a 20% improvement (reduction) in energy intensity from 1990–1994 and an additional 22% improvement from 1994 to mid-year 2004.
- Since 1994, Dow has reduced its GHG emission intensity—CO_2 equivalents per pound of production—by 45%.
- We make products that enable lighter vehicles, improved insulation for buildings, more efficient wind power turbines and many other solutions critical to efforts to minimize GHG emissions.
- Dow has established a Climate Change and Energy Policy Strategy Board…."

Securities Filings Statement — *From Management Discussion & Analysis:*

"Dow takes global climate change very seriously and is not waiting for the resolution of the debate. Dow is committed to reducing its GHG intensity (pounds of GHG per pound of product), developing climate-friendly products and processes and, over the longer term, implementing technology solutions to achieve even greater climate change improvements. Since 1995, Dow has reduced GHG intensity by over 40%. Total direct emissions of GHG have also been significantly reduced. This trend could reverse, however, depending on business growth, capacity utilization and the pace of new technology development.

"Given the uncertainties regarding implementation of the Kyoto Protocol and related climate change policies, it is speculative to engage in an assessment of either the potential liability or benefit associated with climate change issues. Since 1994, the Company has achieved a 21% improvement in energy intensity… In doing so, it has avoided consuming more than 290 trillion Btus, a savings equivalent to all of the electricity used by the residential users in the State of California in one year. These efficiency improvements also result in the reduction of GHG emissions.

"Dow also contributes to the climate change solution by producing products that help others reduce GHG emissions, such as lightweight plastics for automobiles and insulation for energy efficient homes and appliances. In 2004, Dow demonstrated its commitment to technological innovation and conservation though its exploration of renewable energy sources…."

Company Report — *2004 Corporate Report*

GRI Report — *The Dow Chemical Company 2004 Global Reporting Initiative Report* (in accordance)

Carbon Disclosure Project — Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 16

Savings Calculated by Company

Amount: 722,110 tonnes of CO_2 equivalent in 2002 ***Scope:*** Entity-level

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program. The Dow website and *Corporate Report* include many examples of company projects to optimize production, reduce emissions and save energy.

Dow Chemical Co.

NYSE: ***DOW***
Industry: ***Chemicals***

Emissions Accounting	*(continued)*
GHG Emissions Inventory	***2004 Amount:*** 33,700,000 tonnes of CO_2e ***Region:*** Global ***1994 Amount:*** 47,000,000 tonnes of CO_2e ***Region:*** Global Dow reduced its CO_2e emissions by 28% in 1994–2004, while its production volume increased 37%. The reductions were achieved through long-term efficiency improvements and conversion to more climate-friendly technologies. ***2004 Amount:*** 0.557 lbs. of CO_2e/lb. of production ***Region:*** Global (intensity rate) ***1994 Amount:*** 1.068 lbs. of CO_2e/lb. of production ***Region:*** Global (intensity rate) Dow reduced its GHG emissions intensity rate by 45% in 1994–2004 through use of more climate friendly power production and chemical processing technologies.
Third Party Vertification	No.
Reporting Protocol	None identified.

Strategic Planning	***Score: 17***
Emissions Targets	***Baseline year:*** 1994 ***Target year:*** 2005 ***Region:*** Global (intensity rate) ***Amount:*** 20% decrease in energy use per pound of product Dow reports that it has achieved a 22% improvement in energy efficiency in 1994–2004 and now is working on a new goals for 2015. Dow has not set a target to reduce absolute GHG emissions.
GHG Emissions Trading	***Voluntary programs***—Dow's Emissions Trading team is responsible for developing, managing and implementing emission trading strategies for CO_2, as well as for NOx at certain Dow sites. The GHG Offset Team is responsible for developing offsets available to Dow, whether through internal projects, Clean Development Mechanism projects or carbon funds. The goals of both teams are to enable Dow to comply with the E.U. Emissions Trading Scheme in the lowest cost way, as well as look for opportunities for value added trading utilizing Dow technology or know-how. ***Government programs***—Dow is actively monitoring the E.U. Emissions Trading Scheme and is implementing the internal systems necessary to comply with future emissions controls from that scheme.
Green Power	In 2003, Dow Chemical joined the Green Power Market Development Group, a collaboration of 13 leading corporations and the World Resources Institute dedicated to building corporate markets for green power. The group's goal is to develop corporate markets for 1,000 MW of new, cost competitive green power by 2010. Dow also makes some products made from renewable resources. It sells polylactic acid (PLA) under the NatureWorks brand name. This line of high-performance plastics is made from corn rather than petroleum-based products. Dow's Woodstalk engineered fiberboard is made primarily from wheat straw fiber that otherwise would be burned in fields, thus reducing local air pollution and CO_2 emissions. Net sequestration of carbon is around 250–300 kilograms per ton of harvested straw. By 2008, the market for this fiberboard in Canada may be enough to offset about 1% of all Canadian GHG emissions from agriculture.
Energy Efficiency	Dow realized a 22% improvement in energy efficiency in 1994–2004 and now working on a revised set of goals for 2015. Combined heat and power plants provide 75% of Dow's electricity needs.
Commercial Business: ***Fuel cells***	Dow is in partnership with General Motors to work on a fuel cell project for power generation. The project is based at Dow's Freeport, Texas, site, where hydrogen is created as a co-product. If the project proceeds as planned, GM's fuel cells will convert hydrogen into 35 MW of electricity for the Freeport plant, making this the world's largest fuel cell project for power generation. Dow also produces a number of products that help others reduce GHG emissions, such as lightweight plastics for automobiles and insulation for energy efficient homes and appliances.

DuPont (EI) de Nemours

NYSE: ***DD***
Industry: ***Chemicals***

DuPont's board of directors has overseen the company's climate change activities since 1994. The company is committed to reducing its greenhouse gas emissions by 65% in 1990–2010. As of 2004, it had reduced its GHG level by 72%, mainly through process-change investments to reduce nitrous oxide (N_2O) emissions and through reduction of hydrofluorocarbons. DuPont has set a goal to hold its total energy consumption flat in 1990–2010 (achieving a 7% reduction as of 2004) and to increase energy use from renewables to 10% by 2010 (with 5% supplied by renewables as of 2003). It is also actively engaged in GHG emissions trading markets. DuPont sees global climate change as an opportunity for new business and is involved in a number of commercial projects that are designed to reduce global GHG output. The company issues an annual sustainability report updating its progress.

Summary Score: 85

Company Information

DuPont is one of the world's largest chemical companies, operating in 75 countries. It makes a wide range of products and is involved in biotechnology, electronics, materials science, safety and security, and synthetic fibers. The company has five product platforms: agriculture and nutrition, coatings and color technologies, electronic and communication technologies, performance materials, and safety and protection. It had more than $27 billion in total sales in 2004.

Contact Information

CEO / Chairman	Charles O. Holliday Jr.
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Address	1007 Market St Wilmington, DE 19898-0001 USA

Board Oversight

Score: 8

Board Committee	Environmental Policy Committee
Committee Chair	William Reilly, CEO, Aqua International Partners and former head of the U.S. Environmental Protection Agency (1989–1993).
Actions Taken	DuPont issued its first climate change policy statement in 1994. The Environmental Policy Committee is regularly apprised of significant developments regarding climate change and GHG emissions, energy efficiency and renewable energy, and biotechnology. It also periodically reviews the company's policies and overall progress in environmental performance. DuPont also has a Sustainable Growth Council that is chaired by Chairman Holliday.

Management Execution

Score: 16

CEO Statement — *From 2004 Sustainable Growth Progress Report:*

"DuPont's mission is Sustainable Growth. We must grow to be a successful enterprise. We have the choice to view major societal concerns like climate change, fossil fuel energy use, the impacts of chemicals to human health and the environment, and the introduction of new technologies such as nanotechnology as things that we must defend. Or we can see them as opportunities to create solutions that not only improve our bottom line but also create tremendous benefit for society. We have chosen to see these as opportunities and to use these to drive our business growth."

Chief Environmental Officer	Linda Fisher, Vice President & Chief Sustainability Officer
Levels to CEO	0
Climate Change Executive	Donald Johnson, Global Vice President of Operations Fisher and five other company representatives also serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	DuPont Climate Change Steering Team This steering team, co-chaired by Fisher and Johnson, is responsible for managing GHG emissions reduction programs, energy conservation programs and emissions trading opportunities. The heads of each business platform are responsible and accountable for ensuring their businesses contribute to the successful attainment of corporate goals for GHG emission reductions and energy efficiency improvements.
Link to Executive Compensation	DuPont's Variable Compensation Plan includes environmental stewardship as one of six core values that are included in an annual performance assessment. This plan affects approximately 6,600 employees, including executive officers.

DuPont (EI) de Nemours

NYSE: ***DD***
Industry: ***Chemicals***

Public Disclosure

Score: 12

Company Statement

From company website:

"DuPont has participated in international scientific study of climate change and believes there is need for prudent action. We began taking action to reduce [GHG] emissions in the early 1990s, have accomplished major global reductions and set ambitious goals for the current decade. We intend to meet those goals.

"Governments must stimulate action to moderate [GHG] emissions, to enable gradual transition to the [GHG] constraints required for long-term stabilization. The international community is responding to that challenge through the long-term 1992 Framework Convention and the short-term 1997 Kyoto Protocol. DuPont views the Protocol as an expression by governments of the seriousness with which they view climate change and a declaration of intent to intervene—a signal that government policy will play an instrumental role. It is, however, still a work in progress. Its basic structure has both strengths (net-emissions focus, country flexibility and market-responsive emissions trading mechanisms) and weaknesses (aggressive short-term timetable, lack of long-term strategy, and a focus only on developed nations). The long-term challenge demands that governments fashion a coordinated global program that builds on these strengths and responds constructively to these weaknesses, in a manner embraced by all of the parties to the Framework Convention on Climate Change—the United States and its negotiating partners, the European Union, countries with economies in transition and the developing world. DuPont will continue to work with the international climate change processes to further environmental sustainability…."

Securities Filings Statement

Excerpt from Management Discussion & Analysis:

"Du Pont has a stake in a number of [the regulated GHG] gases—CO_2, N_2O, HFCs and PFCs—and has been reducing its emissions of these gases since 1991. Du Pont remains well ahead of the target and timetable of the Protocol. However, the company faces the possibility of country-specific restrictions where major reductions have not yet been achieved and has faced high energy prices in Europe and the United States in recent years due, at least in part, to expectations of emission reduction mandates. Du Pont is participating in emissions trading in the E.U. and elsewhere that could aid in satisfying such country-specific requirements. Emission reduction mandates within the United States are not expected in the near future, although Congressional proposals for such mandates have been introduced."

Company Report

Sustainable Growth 2004 Progress Report

GRI Report

DuPont Economic, Environmental and Social Performance Data in the GRI Format (2005)

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 21

Savings Calculated by Company

Amount: 64,590,000 tonne reduction in annual CO_2e emissions ***Scope:*** Entity-level
Time frame: 1990–2004

GHG Emissions Inventory

2004 Amount: 24,900,000 tonnes of CO_2 equivalent ***Region:*** Global

1990 Amount: 89,490,000 tonnes of CO_2 equivalent ***Region:*** Global

The 2004 emissions include 15.3 million tonnes of CO_2; 5.2 million tonnes of CH4, HFCs and CFCs expressed as CO_2e, and 4.5 million tonnes of N2O as CO_2e.

Third Party Vertification

Yes. DuPont has commissioned an independent verification of several key project-based emissions reductions programs to support its trading activities around the world. Its U.S. entity-wide baseline inventory and current emissions are subject to audit and verification through its participation in the Chicago Climate Exchange.

Reporting Protocol

GHG Protocol. DuPont participated in early road testing of the GHG Protocol.

DuPont (EI) de Nemours

NYSE: ***DD***
Industry: ***Chemicals***

Strategic Planning		***Score: 28***
Emissions Targets	***Baseline year:*** 1990 ***Target year:*** 2010 ***Region:*** Global ***Amount:*** 65% decrease in emissions of CO_2e DuPont reduced its GHG emissions by 72% in 1990–2004, exceeding the goal set for 2010. The reduction was achieved mainly through major process-change investments to reduce nitrous oxide (N_2O) emissions from adipic acid (an ingredient for manufacturing nylon) and through source reduction, capture and destruction of HFC-23 (a byproduct of fluorocarbon manufacture). DuPont has also set goals to hold energy use flat in 1990–2010, and increase its use of renewable energy to 10% of total energy by 2010.
GHG Emissions Trading	***Voluntary programs***—DuPont is a charter member of the Chicago Climate Exchange and has participated in voluntary trading of GHG emissions reduction credits through this exchange. DuPont also participated in the U.K. Emissions Trading Scheme in 2002 and 2003 through its Invista subsidiary (Invista was divested in 2004). DuPont has participated in Clean Development Mechanism of the Kyoto Protocol to reduce emissions in its value chain, for which it has received Certified Emission Reductions credits. ***Government programs***—DuPont is actively monitoring the E.U. Emissions Trading Scheme and is is evaluating its potential to participate in that scheme. implementing the internal systems necessary to comply with future emissions controls from that scheme.
Green Power	As of 2004, DuPont derived 5% of its energy use from renewables. It is seeking to increase this amount to 10% by 2010. In 2002, DuPont joined as a charter member of the Green Power Market Development Group, a collaboration of 13 leading corporations and the World Resources Institute that is dedicated to building corporate markets for green power. The group's goal is to develop corporate markets for 1,000 MW of new, cost competitive green power by 2010. DuPont also leads the Integrated Corn-Based BioRefinery project—a U.S. Department of Energy-funded research program—to develop the world's first integrated pilot-scale "biorefinery" that will make use of the entire corn plant—including the stalks, husks, and leaves—to make electricity, biofuels, and an array of biomaterials.
Energy Efficiency	In 1990-2003, DuPont reduced its energy consumption by 7%, despite a 33% rise in production. About half the reduction was achieved through process and powerhouse efficiency improvements; the other half was from product and process mix changes.
Commercial Business: ***Refrigeration***	DuPont is developing and implementing next generation cooling solutions that include refrigerants with low or no global warming potential, refrigeration units designed for improved energy efficiency and reduced coolant emissions through leak detection, improved seals and capture of refrigerants at the end-of-life for reuse, recycle or destruction.
Insulation	DuPont's Tyvek homewrap provides insulation and a moisture barrier that increases a home's energy efficiency. A newly developed application of Tyvek in sealed roofing systems can reduce 25% of whole house thermal loss over the life of the dwelling. DuPont also produces laminated glass interlayers with reflective and UV barrier properties for high efficiency windows in commercial buildings.
Lightweight materials	DuPont is producing lightweight thermoplastic parts to replace metal parts in automobiles for improved energy efficiency. Another business is producing advanced components and encapsulants for more efficient, lower cost photovoltaics.
Bio-materials	DuPont's Bio-Based Materials business is developing and producing plastics and fibers from renewable corn-based raw materials with properties similar to or superior to plastics produced from petroleum feedstocks. End-uses include apparel, carpets, automotive parts and upholstery.
Fuel cells	DuPont has developed membrane electrode assemblies technology for fuel cells that require much less catalyst loading compared with previous designs, while delivering 20% higher power density and over two times improvement in durability and reliability, leading to more cost-effective fuel cell systems.

Imperial Chemical Industries PLC (ICI)

NYSE : ***ICI***
Industry: ***Chemicals***

ICI created a cross-business Sustainability Board in 2004 to oversee strategies and objectives on sustainability matters. In 2001, ICI identified climate change as one of its key environmental challenges, and set a target to reduce GHG emissions and energy use by 5% per tonne of production through 2005. ICI has been monitoring its energy usage and GHG figures since 1990, and has set five-year improvement targets. It achieved an 18% reduction in GHG emissions in 1990–1995, and a further 73% reduction in 1996–2000. Much of this improvement is due to fundamental changes in ICI's portfolio, as the company has moved from a bulk producer of chemicals on large industrial sites to a producer of specialty products and paints operating from many smaller sites. ICI is engaged in life-cycle assessments of its products to make them more sustainable, including developing renewable resources for its materials, improving eco-efficiency in manufacture and making changes in design and formulation to reduce product impacts during use and disposal. It reports annually on its progress in a sustainability report.

Summary Score: 60

Company Information	
	Imperial Chemical Industries, or the ICI Group, is an international company that produces paints, fragrances, foods and personal care items. It had sales of $10.7 billion in 2004.

Contact Information	
CEO / Chairman	John McAdam / Peter Ellwood
Contact	Tel: 440.20.7009.50 • Web: www.ici.com
Address	20 Manchester Sq London, United Kingdom W1U 3AN UK

Board Oversight	***Score: 9***
Board Committee	The entire ICI board ovesees sustainability issues.
Committee Chair	William Powell, Chairman of National Starch and Chemical Co. (an ICI subsidiary). Powell is the board member with direct oversight responsibility for safety, health and environmental issues.
Actions Taken	The board approves sustainability policy and targets. It receives a monthly summary report about these targets and discusses them at each board meeting, as well as receiving an annual report.

Management Execution	***Score: 10***
CEO Statement	None identified.
Chief Environmental Officer	Dr. Frank Rose, Group Vice President, Sustainability
Levels to CEO	1
Climate Change Executive	None identified. Board member Powell is the executive director for sustainability. Dr. Rose reports to Powell.
Executive Committee	SHE Leadership Team and Sustainability Board. This leadership team is comprised of safety, health and environmental directors from each ICI business and led by Dr. Rose. It identified climate change in 2001 as one of its key challenges in a five-year plan targeting continuous improvement in environmental performance. In addition, the Global Sustainability Board, set up in 2004, is leading a detailed evaluation of current and future priorities and stakeholder expectations to develop ICI's sustainability strategy and objectives for 2010. The Global Sustainability Board is an executive management team that reports to board member Powell. Its members represent each ICI international business and most group functions, including some younger business representatives to gain knowledge and expertise in these areas.
Link to Executive Compensation	ICI considers environmental performance as one of the compensation criteria of Board members, SHE managers and other senior managers.

Imperial Chemical Industries PLC (ICI)

NYSE : ***ICI***
Industry: ***Chemicals***

Public Disclosure

Score: 10

Company Statement

From 2004 Safety, Health & Environment report:

"Our contribution to climate change as a manufacturing company has reduced drastically through the transformation of our product portfolio and technology improvements. All indicators are ahead of target due to continuous improvements in production processes and efficiencies and some investment in new technology. We also measure the emissions of ozone depletors, although we have no target: the current level is 99% below the 2000 level."

Securities Filings Statement

Excerpt from Form 20-F:

"ICI's policy is to improve its SHE performance continuously and to have in place quantitative measures to monitor progress. For these reasons, since 1991 ICI has published 5-year improvement targets for SHE. The current set, 'Challenge 2005', was published in 2001 to be achieved by the end of the year 2005. 'Challenge 2005' focuses on the effects of the Group's activities on climate change, air, land, water, and other potential impacts. Targets include… a commitment to improve energy efficiency per tonne of production by a further 5% of the 2000 base level… ICI developed the measurement of environmental burden in 1995 in order to take account not just of the quantity of an emission but its potential impact on the environment. It uses the environmental burden methodology to help prioritise actions for further performance improvement."

Company Report

ICI Sustainability Review 2004

GRI Report

See above.

Carbon Disclosure Project

Not queried.

Emissions Accounting

Score: 16

Savings Calculated by Company

Amount: 18% reduction in annual CO_2e emissions ***Region:*** Global
Time frame: 1990–1995

Amount: 73% reduction in annual CO_2e emissions ***Region:*** Global
Time frame: 1996–2000

ICI does not provide absolute baseline figures to correlate with this percentage reduction in emissions. Much of these reductions are attributable to changes in ICI's portfolio, as the company has moved from a bulk producer of chemicals on large industrial sites, to a specialty products and paints business operating from many smaller sites. The company has virtually eliminated its production of ozone-depleting substances since 2000, many of which are also potent greenhouse gases.

GHG Emissions Inventory

2004 Amount: 2,351,807 tonnes of CO_2e ***Region:*** Global
2000 Amount: 3,797,783 tonnes of CO_2e ***Region:*** Global

When calculating the percentage improvement, the 2000 baseline figures are adjusted to reflect changes in the company's business portfolio. Emissions from newly acquired businesses are added retrospectively to the 2000 figures (and sold businesses removed). ICI has been monitoring its energy usage and GHG figures since 1990.

Third Party Vertification

Yes. ICI's performance in 2004 is being verified by Enviros Consulting Ltd., and the detailed performance results and verification statement will be published on its website.

Reporting Protocol

GHG Protocol

Imperial Chemical Industries PLC (ICI)

NYSE : ***ICI***
Industry: ***Chemicals***

Strategic Planning		***Score: 15***
Emissions Targets	***Baseline year:*** 2000 ***Target year:*** 2005 ***Region:*** Global (intensity rate) ***Amount:*** 5% decrease in GHG emissions per tonne of production (from nonrenewable sources) By 2004, ICI had exceeeded this target, achieving an 11% reduction in GHG emissions per tonne of production (adjusted for product mix). ICI manages its SHE performance by a rolling program of five-year targets. Its 2005 targets were announced in March 2001. It also has a target to reduce energy use 5% per tonne of production in 2001–2005, as well as a target to reduce the rate of ozone generation by 25% over the period.
GHG Emissions Trading	None identified. The current E.U. Emissions Trading Scheme does not cover the chemical industry. At least two of ICI's European sites have registered to take part in future emissions trading, should the chemical industry be included in the 2008–2012 phase of the plan, while keeping the company's position under review.
Green Power	In 2004, about 2.3% of ICI's energy came from renewable sources, compared with 2.5% in 2003.
Energy Efficiency	ICI's energy consumption per tonne of production decreased by 13% between 2000 and 2004, surpassing its 2005 goal of achieving a 5% reduction. In 2000–2004, ICI Paints improved energy efficiency per ton of production by 24% by optimizing plant operation and consolidating production sites to improve process efficiencies. This improvement also included small projects such minimizing mixing time, not leaving equipment on unnecessarily, replacing gas burners with more efficient designs.
Commercial Business	ICI is engaged in life-cycle assessments of its products to make them more sustainable, including developing renewable resources for its materials, improving eco-efficiency in manufacture and making changes in design and formulation to reduce product impacts during use and disposal.

Monsanto Company

NYSE : ***MON***
Industry: ***Chemicals***

Monsanto's Public Policy & Corporate Responsibility Committee oversees the company's environmental affairs and periodically reviews the company's greenhouse gas emissions data. The business now owned by Monsanto has tracked its GHG emissions since 1990; they have risen 51% while its technical product output has increased by 143%. Monsanto says it is helping farmers to grow more food and energy sources with fewer inputs, which helps to alleviate the global warming problem. Monsanto offers more than 90 seed brands for corn, which can be converted into ethanol fuel. It also makes herbicide-tolerant seeds that reduce soil tillage and allow for more carbon to be retained in soils. Monsanto includes information on climate change and GHG emissions in its annual *Pledge* report.

Summary Score: 32

Company Information	
	Monsanto reorganized in 2000 when the agricultural business of Pharmacia Corporation separated from Pharmacia and assumed the Monsanto Company name. Today's Monsanto manufactures and markets agricultural products and integrated solutions to farmers, including several lines of pesticides and herbicides, as well as seed brands with biotechnology traits for insect protection and herbicide tolerance. It estimates that about 70% of the world's insect- and herbicide-resistant crops are from its brands. It had sales of almost $6.3 billion in fiscal 2005.

Contact Information	
CEO / Chairman	Hugh Grant
Contact	Tel: 314-694-1000 • Web: www.monsanto.com
Address	800 N Lindbergh Blvd Saint Louis, MO 63167-0001 USA

Board Oversight	***Score: 4***
Board Committee	Public Policy and Corporate Responsibility Committee
Committee Chair	Gwendolyn King, President, Podium Prose (a speaker's bureau)
Actions Taken	Monsanto's Public Policy & Corporate Social Responsibility Committee last reviewed the company's GHG emissions data at its June 2005 meeting. The committee met five times in fiscal 2005, but there is no indication how often climate change is discussed.

Management Execution	***Score: 2***
CEO Statement	None identified.
Chief Environmental Officer	Emer Obroin, VP, Environment, Safety and Health
Levels to CEO	2
Climate Change Executives	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Monsanto Company

NYSE : ***MON***
Industry: ***Chemicals***

Public Disclosure

Score: 5

Company Statement

From the 2004 Pledge Report:

"Although there are uncertainties associated with the science of global warming, climate change could affect the larger challenge of sustainable development. The impact of climate change, climate policy responses, and associated socio-economic development could directly affect the ability of many countries to achieve sustainable-development goals. Globally, according to the Intergovernmental Panel on Climate Change (IPCC), it is very likely that the 1990s were the warmest decade and 1998 the warmest year on record. There is new and stronger evidence that most of the global warming observed in the past 50 years is attributable to human activities although natural factors may also play a role.

"The best way to manage the carbon in the atmosphere is to reduce our need for fossil fuels. Another way is to increase our use of low-carbon and carbon-free fuels and technologies. A third way is to capture the carbon in the ground and store more carbon in the soil….

"Monsanto is helping farmers to grow more food and energy sources with fewer inputs, which helps to alleviate the global warming problem. Monsanto is researching ways to use biotechnology, conventional breeding, and crop analytics to improve the quantity and quality of bioenergy. The company has also been involved in industry-wide programs to encourage the use of bioenergy sources in agricultural production, and in encouraging farmers to employ methods that reduce carbon dioxide and nitrous oxide emissions substantially.

"Monsanto has developed crop varieties that have a mitigating effect on global warming. They are primarily responsible for the big increase in conservation tillage acres planted by farmers in recent years. These crops reduce the need for fertilizers, which can release nitrous oxide into the atmosphere. Further, they reduce the energy and fossil fuels required to manufacture and distribute these chemicals to farmers and the amount of fuel required to apply the pesticides. Monsanto is also involved in a major ethanol initiative."

Securities Filings Statement: None identified.

Company Report: *2005 Pledge Report*

GRI Report: None.

Carbon Disclosure Project: Not queried.

Emissions Accounting

Score: 12

Savings Calculated by Company: None identified.

GHG Emissions Inventory

2004 Amount: 1,864,000 tonnes of CO_2e ***Region:*** Global (chemical production)
1990 Amount: 1,238,000 tonnes of CO_2e ***Region:*** Global (chemical production)

These inventory figures reflect emissions associated with chemical production only. The 2004 figure includes 574,000 tonnes of indirect emissions. The 1990 figure includes 419,000 tonnes of indirect emissions. Monsanto's total GHG emissions increased 51% over the period, while its technical product output increased by 143%.

2004 Amount: 4.47 tonnes of CO_2e/tonne of technical product output ***Scope:*** Intensity rate
1990 Amount: 7.12 tonnes of CO_2e/tonne of technical product output ***Scope:*** Intensity rate

Third Party Vertification: No.

Monsanto Company

NYSE : ***MON***
Industry: ***Chemicals***

Strategic Planning	***Score: 9***
Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	Monsanto's total energy efficiency rate has improved by approximately 50% since 1990. The company's total energy use has increased 18% over the period.
Commercial Business: ***Ethanol fuel***	Since 2003, Monsanto has been involved in "Fuel Your Profits" initiative to promote ethanol, a renewable form of energy derived from corn. Monsanto offers more than 90 seed brands labeled as Monsanto Processor Preferred High-Fermentable Corn, which produces seeds that improve dry-mill ethanol production yields by 2–4%. It says that for every gallon of ethanol used in reformulated gasoline, GHG emissions are reduced by 12–19%; for every gallon of ethanol used in E85 fuel, GHG emissions are reduced by 17–24%, including the ethanol production process. The environmental benefit of corn-based ethanol is a source of debate, when taking into account energy-intensive corn farming and ethanol production methods. Monsanto is basing its estimates on a study of the entire corn-to-ethanol fuel cycle—including production and transportation of fertilizers, corn farming, corn transportation, ethanol production, ethanol transportation, storage, and distribution, and ethanol combustion.
Biotechnology-enhanced seeds	Monsanto herbicide-tolerant seeds provide farmers with a useful tool for weed control that facilitates the use of conservation tiilage practices. Enhanced CO_2 sequestion in soil is one of several environmental benefits of conservation tillage. In addition, farmers have to take fewer passes through their fields, thus saving an average of 3.5 gallons of fuel per acre, according to the Iowa State University Extension Office. Planting Monsanto's Bt (insect-tolerant) seeds results in less pesticide applied, leading to less energy and fossil fuels required to manufacture and distribute these pesticides to farmers as well as less fuel required to apply the pesticide. In addition there are the side benefits of fewer containers, cleaner water, wildlife benefits, beneficial insects, and less pesticide exposure to farmers.

PPG Industries Inc

NYSE : ***PPG***
Industry: ***Chemicals***

PPG's Executive Committee for Environment, Health and Safety conducts an annual review of the company's greenhouse gas emissions and progress toward a developed goal. PPG has been tracking its U.S. GHG emissions since 1990, and had achieved a 17% reduction in those emissions as of 2003. For 2002–2012, PPG's target is to reduce its rate of GHG emissions by 18% relative to production. It is seeking continuous improvement in energy efficiency in all of its manufacturing processes. PPG is developing products like low-emissivity coated glass that reduce end-use GHG emissions.

Summary Score: 21

Company Information	
	PPG Industries is a major supplier of coatings, glass and chemicals, serving industrial, aerospace, packaging, architectural and automotive customers. Its production facilities and markets are predominately in North America and Europe, although it is also pursuing business opportunities in Asia and South America. It had $9.5 billion in sales in 2004.
Contact Information	
CEO / Chairman	Charles E. Bunch
Contact	Tel: 412-434-3131 • Web: www.ppg.com
Address	1 PPG Place Pittsburgh, PA 15272-0001 USA
Board Oversight	***Score: 1***
Board Committee	None identified.
Committee Chair	None identified.
Actions Taken	None identified on climate change or GHG controls.
Management Execution	***Score: 5***
CEO Statement	None identified.
Chief Environmental Officer	Reg Norton, Global Director, Environment, Health & Safety
Levels to CEO	2
Climate Change Executive	Jerome Osheka, Global Environmental Director
Executive Committee	EHS Executive Committee This committee conducts an annual review of GHG inventory and progress toward a developed goal. The committee co-chairs are Kevin Sullivan, Senior Vice President, Chemicals; and James Diggs, Senior Vice President, General Counsel and Secretary.
Link to Executive Compensation	Environmental performance is a factor in compensation for executives.
Public Disclosure	***Score: 2***
Company Statement	None identified. PPG told IRRC in 2003 that it does not have a specific strategy on climate change: "PPG's strategy is to work toward continuous improvement in energy efficiency in all our manufacturing processes and to develop products which reduce greenhouse gas emissions when they are used."
Securities Filings Statement	None identified.
Company Report	*Progress Report; Environment, Health and Safety (2004)*
GRI Report	None identified.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

PPG Industries Inc

NYSE : ***PPG***
Industry: ***Chemicals***

Emissions Accounting

Score: 3

Savings Calculated by Company: None identified.

GHG Emissions Inventory: ***2004 Amount:*** 0.858 tons of CO_2e/ton of product ***Region:*** Global (intensity rate)
2000 Amount: 0.873 tons of CO_2e/ton of product ***Region:*** Global (intensity rate)

Although PPG has inventory data on the company's total GHG emissions dating back to 1990—and reported it publicly through 2003—it no longer makes this information publicly available.

Third Party Verification: No.

Reporting Protocol: None identified.

Strategic Planning

Score: 10

Emissions Targets: ***Baseline year:*** 2002 ***Target year:*** 2012 ***Region:*** Global (intensity rate)
Amount: 0.716 tons of CO_2e/ton of product

This emission intensity target is consistent with the goal of the American Chemistry Council to reduce the industry's GHG emissions intensity 18% from 2002 levels by 2010–2012.

GHG Emissions Trading: ***Voluntary programs***—None identified.

Government programs—PPG has facilities that may be subject to the E.U. Emissions Trading Scheme.

Green Power: None identified.

Energy Efficiency: PPG has invested in the development of more energy efficiency products, including glass and fuel technologies. It has also installed oxygen furnaces in almost all company fiberglass locations. PPG is a member of the U.S. Green Building Council and the U.S. EPA's Energy Star program.

Commercial Business: PPG introduced tinted glass as a design and environmental control element in 1952. It introduced low-emissivity coated glass in 1982. These technologies are now industry standards. PPG estimates that if all residential windows sold in the U.S. were energy efficient, the savings in the year 2010 would be 0.43 quadrillion BTUs, enough energy for a city of 1.5 million people for a year.

Praxair Inc.

NYSE : ***PX***
Industry: ***Chemicals***

Praxair has an executive Sustainabilty Council that is developing an overall carbon strategy; it reports to the Governance Committee of the company's board of directors. Praxair believes that climate change presents opportunities as well as risks to its businesses. Praxair has taken an inventory of its emissions and has set a target to reduce its GHG intensity rate by 8% in 2000–2010. Praxair estimates that about two-thirds of its products help customers reduce their own "environmental footprint" and increase energy efficiency and material throughput in a wide range of industries. The company believes higher energy costs will spur demand for such products.

Summary Score: 43

Company Information

Praxair is the largest industrial gases company in North and South America, has a well-established business in Europe and a growing presence in Asia. Its primary products for its industrial gases business are atmospheric gases (oxygen, nitrogen, argon, rare gases) and process gases (carbon dioxide, helium, hydrogen, electronic gases, specialty gases, acetylene). The company also designs, engineers and builds equipment that produces industrial gases for internal use and external sale. The company's Surface Technology segment supplies wear-resistant and high-temperature corrosion-resistant metallic and ceramic coatings and powders. It had sales of $6.6 billion in 2004.

Contact Information

CEO / Chairman	Dennis H. Reilley
Contact	Tel: 203-837-2000 • Web: www.praxair.com
Address	39 Old Ridgebury Rd Danbury, CT 06810-5109 USA

Board Oversight

Score: 5

Board Committee	Governance & Nominating Committee
Committee Chair	G. Jackson Ratcliffe Jr., retired CEO, Hubbell Inc.
Actions Taken	Praxair's board of directors receives reports periodically from the executive Sustainability Council, which has responsibility for developing Praxair's overall carbon strategy.

Management Execution

Score: 8

CEO Statement	None identified.
Chief Environmental Officer	Ricardo Malfitano, Senior Vice President
Levels to CEO	0
Climate Change Executives	Dennis Johnson, Director, Safety and Environmental Services
Executive Committee	Sustainability Council. Praxair established this council in 2003 to integrate the company's sustainability policies and initiatives, establish goals and monitor progress toward those goals. One responsibility of the council is to develop an overall carbon strategy that addresses GHG emissions and emission reduction targets, carbon trading, sequestration and regulatory developments. The council includes senior business leaders, including Dennis Johnson, the company's vice president of Human Resources and a representative of the Columbia Earth Institute. James Sawyer, Senior Vice President and Chief Financial Officer, chairs this council. It reports to the Governance Committee of the board of directors.
Link to Executive Compensation	Environmental performance is a factor in compensation for senior executives.

Praxair Inc.

NYSE : ***PX***
Industry: ***Chemicals***

Public Disclosure

Score: 5

Company Statement

From company website:

"Climate change represents both opportunities and risks for Praxair's business. Commercial risks are difficult to predict, but could involve higher energy costs as governments impose taxes or regulations which impact energy prices. We serve a variety of end-markets, and structure our business in a way which minimizes our impact from changes in energy costs.

"The issue of greenhouse gases also presents us with business opportunities as we develop products and services which help our customers reduce emissions generated by their own manufacturing processes. Climate change issues will increase the demand for technologies that produce cleaner fuels and increase energy efficiency. As energy prices rise, these applications become increasingly attractive.

"Praxair is developing an overall carbon strategy that addresses [GHG] emissions, emission reduction targets, carbon trading and sequestration efforts. Praxair continues to monitor the evolving regulatory and legislative landscape regarding [GHG] emissions and trading schemes, including the E.U. Emissions Trading Scheme."

Securities Filings Statement

Excerpt from Form 10-K:

"Praxair provides a competitive advantage to its customer base by continuously developing new products and applications which allow them to improve their productivity, energy efficiency and environmental performance."

Company Report

Praxair—Our Commitment To Sustainability (issued in 2003)

GRI Report

None identified.

Carbon Disclosure Project

Answered questionnaire, allowed disclosure.

Emissions Accounting

Score: 13

Savings Calculated by Company

None identified.

GHG Emissions Inventory

2004 Amount: 13,700,000 tons CO_2e ***Region:*** Global
1999 Amount: 12,100,000 tons of CO_2e ***Region:*** Global

The vast majority of Praxair's GHG emissions result from electric power use by air separation plants. Total emissions were steady in 1999–2003, at around 12 million tons of CO_2e. They rose to 13.7 million tons in 2004 because Praxair increased hydrogen production with the start up of two new plants that produce hydrogen from natural gas and water. The hydrogen is used to produce low-sulfur fuels. For each ton of hydrogen used in gasoline refining, 16 tons of sulfur is removed. Each ton of hydrogen produced produces six tons of CO_2.

In 2004, 9.9 million tons of Praxair's global GHG emissions were in countries subject to emissions controls under the Kyoto Protocol; 1.1 million tons were in countries subject to the E.U. Emissions Trading Scheme. (Praxair and other chemical companies are not subject to this trading scheme at present.)

2004 Amount: .316 ton CO_2/ton product ***Region:*** Global (intensity rate)
1999 Amount: .338 ton CO_2/ton product ***Region:*** Global (intensity rate)

Third Party Vertification

No.

Reporting Protocol

GHG Protocol.

Strategic Planning

Score: 12

Emissions Targets

Baseline year: 1999 ***Target year:*** 2010 ***Region:*** Global (intensity rate)
Amount: 8% decrease–tons CO_2/ton product

Praxair is a member of the U.S. EPA's Climate Leaders program, but has not set a target through this program to control its emissions. Praxair supports the goal of the American Chemistry Council to reduce the industry's GHG emissions intensity 18% from 2002 levels by 2010–2012. Praxair's main focus is on improving the efficiency of the company's transportation fleet and closed-loop refrigeration systems.

Praxair Inc.

NYSE : ***PX***
Industry: ***Chemicals***

Strategic Planning	*(continued)*
GHG Emissions Trading	None identified. Praxair is monitoring pending U.S. legislation and implementation of the E.U. Emissitions Trading Scheme. It says it is positioned to participate in cap-and-trade systems, shoud they develop.
Green Power	Praxair uses Energy Star certified lighting and appliances.
Energy Efficiency	Praxair has committed to improvement in the efficiency of systems and processes. In 2004, it purchased $570 million of electric power, equal to 8.6% of revenues. In the U.S., it also purchased $330 million of natural gas, primarily as a feedstock for its hydrogen business. Praxair dedicates about 10% of its capital expenditures each year to such cost and energy reduction projects. Praxair spent more than $20 million in the U.S. in 2004 to reduce energy use as well as other operational costs.
Commercial Business: ***Hydrogen***	Hydrogen for refining is enabling production of low-sulfur fuels. It is also working with government and private agencies to develop hydrogen fuel cells. At the Los Angeles International Airport, Praxair has provided an on-site hydrogen supply system, based on electrolysis, for a hydrogen filling station designed by BP. Because production of hydrogen results on CO_2 emissions, Praxair is working on carbon sequestration technologies. It is a member of the Gulf Coast Carbon Center and is developing ways to capture CO_2 from hydrogen production for sale in oil and gas well injection.
Oxygen	Pure oxygen used in place of air in a combustion process reduces the amount of natural gas required as fuel and cuts nitrogen oxide emissions by 80 to 90%. Praxair has also developed patented technology to inject oxygen in the steelmaking process to reduce energy consumption and harmful emissions.
Ozone	Ozonated water can be used in place of chemicals (such as chlorine) on freshly washed fruits and vegetables. Praxair captures CO_2 as a byproduct of other companies' manufacturing processes to produce ozone for use in the food industry and other applications.

Rohm and Haas Co.

NYSE : ***ROH***
Industry: ***Chemicals***

Rohm and Haas has a board committee on Sustainable Development that has reviewed the climate change issue. The company says that action on climate change should be taken now, even though CO_2 emissions limits could restrict business growth. Rohm and Haas conducted its first inventory of GHG emissions in 2001. It has set an ongoing target to reduce annual energy consumption by at least 1% per pound of product, and has substantially exceeded this target. Among the company's energy-saving product offerings are certain roofing materials and coatings for marine vessels. It is also participating in government-funded research on biomass-based adhesives and sealants that could replace traditional petroleum-based ones.

Summary Score: 40

Company Information

Rohm and Haas produces specialty chemicals that enhance the performance of paints and coatings, computers and electronic devices, household goods, adhesives, personal care products and others. It operates more than 100 manufacturing and 37 research facilities in 27 countries. Rohm and Haas had sales of $7.3 billion in 2004.

Contact Information

CEO / Chairman	Rajiv L. Gupta
Contact	Tel: 215-592-3000 • Web: www.rohmhaas.com
Address	100 Independence Mall W Philadelphia, PA 19106-2399 USA

Board Oversight

Score: 7

Board Committee	Committee on Sustainable Development
Committee Chair	Richard Keyser, CEO, W.W. Grainger Co.
Actions Taken	The company told IRRC in 2003 that its board of directors has conducted an evaluation of climate change and related policies and concluded that climate change will pose "some risk" over the next 10 years.

Management Execution

Score: 6

CEO Statement	None identified. Chairman Gupta has commented on sustainable development and energy efficiency, but has not addressed climate change specifically.
Chief Environmental Officer	Phil Lewis, Vice President & Director, Global EHS and Sustainable Development
Levels to CEO	0
Climate Change Executive	None identified. Rohm & Haas has three company representatives who participate in the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	None identified.
Link to Executive Compensation	Environmental performance is a factor in compensation for senior executives.

Public Disclosure

Score: 10

Company Statement *From company website:*

"We accept the view that enough is known about climate change for us to take action now. We will use energy more efficiently and thus reduce emissions at our operations around the world. Climate change is a challenge that will require a global solution with appropriate commitments from the public and private sectors of all nations. Public policies to address climate change and reduce greenhouse gases must address the legitimate concerns of energy consumers. We will support appropriate public policy initiatives that seek to advance our understanding of the challenge and move toward a sustainable and scientifically feasible solution."

Rohm and Haas Co.

NYSE : ***ROH***
Industry: ***Chemicals***

Public Disclosure	*(continued)*
Securities Filings Statement	*Excerpt from Management's Discussion & Analysis:* "Due to the nature of our business, we have emissions of CO_2 from combustion sources, but our emissions of other greenhouse gases (N2O, HFCs, etc.) are minimal as compared to CO_2 emissions. We have therefore focused on ways to increase energy efficiency and curb potential increases in [GHG] emissions resulting from growth in production in addition to lowering the energy usage of existing operations. Although the lack of specific legislation prevents any accurate estimates of the impact on us, any legislation that limits CO_2 emissions may create a potential restriction to business growth by limiting the quantity of traditional energy sources available to all consumers of energy, including Rohm and Haas. The outcomes of restricted energy availability could include: increased energy cost, additional capital investment to lower energy intensity and rationed usage with the need to purchase [GHG] emission credits. We will continue to follow these climate change issues, work to minimize any negative impacts on our operations and seek technological breakthroughs in energy supply and efficiency."
Company Report	***2004 EHS and Sustainability Report***
GRI Report	None identified. Rohm and Haas participated in the GRI Advisory Group on Economic Indicators in 2005, and in feedback sessions in 2004.
Carbon Disclosure Project	Not queried.

Emissions Accounting		***Score: 10***
Savings Calculated by Company	***Amount:*** 76,700 tons of CO_2 annually	***Scope:*** Project level
	Rohm and Haas's largest facility, in Deer Park, Tex., has maintained an aggressive energy management effort and continuously reduced its energy consumption each year since 1997. Energy consumption per pound of product at the site was 26.6% lower in 2003 than 1996, eliminating 76,700 tons per year of CO_2.	
GHG Emissions Inventory	***2004 Amount:*** 2,000,000 tons of CO_2 ***2002 Amount:*** 01,900,000 tons of CO_2	***Region:*** Global ***Region:*** Global
	The company calculates CO_2 emissions from energy use.	
Third Party Vertification	No.	
Reporting Protocol	None identified.	

Strategic Planning	***Score: 7***
Emissions Targets	None identified.
GHG Emissions Trading	None identified. Rohm & Haas has European sites that will participate in the E.U. Emissitions Trading Scheme, as needed.
Green Power	None identified.
Energy Efficiency	Rohm and Haas has established business-level energy management programs with individual targets. It has reduced energy consumption by at least 1% per pound of product each year since 2001.
Commercial Business: ***Energy-saving materials***	Rohm and Haas's energy-saving products include its DURAPLUS roofing system, made with Rhoplex Emulsion Polymers for reflective roof coatings that can be applied to rubberized roofs to increase the roofing material's life span while lowering the solar radiation to the roof. Rohm and Haas also makes SEA-NINE® 211, a biodegradable antifouling agent that prevents biological build-up on large ocean-going vessels, thereby reducing the ship's drag and energy consumption. Rohm and Haas has also received government grants to develop energy-saving processes for the manufacture of acrylic acid, using propane in place of propylene.
Hydrogen	Rohm and Haas is also involved in government-funded research to make adhesives and sealants from biomass materials such as sugars, soybean oil and castor oil instead of traditional petrochemical-based materials. Use of these materials could eliminate nearly 140 million pounds of greenhouse gases yearly, while offering faster cure times, higher plant productivity and reduced energy use.

Corporate Governance Profiles

Electric Utilities

American Electric Power Co. Inc.

NYSE: ***AEP***
Industry: ***Electric utilities***

AEP's board of directors issued a report in 2004 assessing the possible effects of CO_2 emission controls. AEP supports comprehensive, cost-effective public policies that facilitate prudent, near-term emission controls and the development of new highly efficient, low carbon-emitting technologies. In 2004, AEP announced plans to place an integrated gasification combined cycle (IGCC) power plant into commercial operation by around 2010. AEP believes that gasifying coal to generate electricity and disposing of CO_2 underground can help stabilize atmospheric GHG concentrations during this century. AEP is a founding member of the Chicago Climate Exchange, through which it has committed to reducing or offsetting approximately 46 million tonnes of cumulative CO_2 emissions by 2010, relative to a 1999–2001 baseline.

Summary Score: 73

Company Information

With more than 36,000 megawatts of U.S. generating capacity, American Electric Power Co. is presently the nation's largest electricity generator and largest consumer of coal. AEP has more than 5 million customers linked to its 11-state electricity transmission and distribution grid. It had sales of $14.1 billion in 2004.

Contact Information

CEO / Chairman	Michael G. Morris
Contact	Tel: 614-716-1000 • Web: www.aep.com
Address	1 Riverside Plaza Columbus, OH 43215-2372 USA

Board Oversight

Score: 10

Board Committee	Policy Committee
Committee Chair	Robert W. Fri, Visiting Scholar, Resources for the Future
Actions Taken	In August 2004, a subcommittee of the board's Policy Committee prepared a report in response to a shareholder proposal that summarized and assessed the actions that AEP is taking to mitigate the economic impact of increasing regulatory requirements, competitive pressures and public expectations to significantly reduce CO_2 and other air emissions. The report included an assessment of proposed legislation to cut GHGs. It concluded that enactment of such proposals would not likely strand AEP's near-term planned investments of $3.5 billion in emission control technologies by 2010 (part of an overall $5 billion planned investment by 2020). However, proposed legislation that has not been enacted into law could materially alter the amount and manner of the anticipated $1.5 billion in investments after 2010.

Management Execution

Score: 11

Chairman Statement — *From 2004 annual report:*

"Keeping coal as a viable energy option will require advanced technologies… While other companies remain focused on supercritical coal-fired generation—pioneered by AEP nearly 50 years ago—we are moving to the next level of generation technology. We believe increasingly stringent air-quality regulations and the possibility of eventual constraints on [CO2] emissions make IGCC the right investment and the most environmentally responsible choice for future coal-fired generation. IGCC technology has the potential to provide the environmental benefits of a high-efficiency, natural gas-fired, combined-cycle facility while capitalizing on the comparatively low and stable fuel costs associated with coal… [IGCC] has the potential to provide the lowest capital cost, highest efficiency and best emission characteristics among coal-based technologies, and the most carbon-friendly fossil-fuel technology over the long term."

Chief Environmental Officer	Dennis Welch, Vice President, Environment & Safety
Levels to CEO	0
Climate Change Executive	Dennis Welch Three company representatives also participate in the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	None identified
Link to Executive Compensation	In 2005, environmental goals accounted for 25% of the targeted annual incentive award for senior executives.

American Electric Power Co. Inc.

NYSE: ***AEP***
Industry: ***Electric utilities***

Public Disclosure

Score: 12

Company Statement

From company website:

"As a steward of the environment, AEP believes strongly in its obligation to provide reliable, affordable power while addressing climate change issues… We believe that the nation should follow the technology roadmap developed by leading energy experts to stabilize atmospheric [GHG] concentrations this century. This roadmap, called the Global Energy Technology Strategy for Addressing Climate Change, shows that gasifying coal to generate electricity and disposing of [CO2] underground can achieve this goal….

" AEP has voluntarily agreed to cap, reduce, and offset its emissions as the [first] U.S. electric power company in the Chicago Climate Exchange; AEP also supports federal and state clean coal technology research and development programs; serves in leadership positions in industry coalitions; has joined the [U.S. EPA and U.S. DOE] to reduce [GHG] emissions voluntarily; has joined The Nature Conservancy and other environmental organizations to create and protect habitats with carbon-storing forests; and creates public education energy programs about wind, solar, hydro and other generating technologies."

Securities Filings Statement

From Management Discussion & Analysis:

"There are new environmental control requirements that we expect will result in substantial capital investments and operational costs…, [including] possible future requirements to reduce [CO_2] emissions to address concerns about global climate change… In August 2004, we released 'An Assessment of AEP's Actions to Mitigate the Economic Impacts of Emissions Policies.' The assessment evaluated our operating emissions control technology, planned investment in additional control equipment and risks associated with an uncertain regulatory environment. It concluded that our actions over the past decade constitute a solid foundation for future efforts to address the intersection between environmental policy and business opportunities. It also concluded that irrespective of the uncertainties surrounding potential air emission regulations and possible future mandatory [GHG] regulations, the pollution control investments planned over the next six to eight years are sound. The report also details many of the voluntary actions we are undertaking to limit our [GHG] emissions and to develop and/or advance… clean energy technologies."

"The MD&A also makes reference to a lawsuit filed by attorneys general from eight states in July 2004, and a nearly identical complaint from three environmental groups, alleging that CO_2 emissions from power plants owned by AEP and four other electric utilities are creating a public nuisance and should be subject to controls. This case has been dismissed by a judge in the Southern District of New York and has been appealed to the Second Circuit Court of Appeals.

Company Report

Toward Environmental Excellence 2001–2002

GRI Report

Report to be published in 2006.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 19

Savings Calculated by Company

Amount: 47,437,200 tonnes of CO_2 ***Scope:*** Entity-level
Time frame: 1991–2004

These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program. AEP avoided these emissions through its participation in DOE's Climate Challenge Program. Initiatives undertaken to reduce GHG emissions include development of a Multi-Emission Compliance Optimization model to analyze investments; co-founding the Chicago Climate Exchange; investing in terrestrial carbon projects and geologic sequestration research; investing in renewables, such as wind generation and biomass; and reducing emissions of sulfur hexafluoride (SF6). As a charter member of the EPA's SF6 Emission Reduction Partnership for Electric Power Systems, AEP reduced emissions of SF6 from 1999 levels of 19,778 lbs. (10% leakage rate) to 2004 emissions of 1,962 lbs (0.5% leakage rate).

American Electric Power Co. Inc.

NYSE: ***AEP***
Industry: ***Electric utilities***

Emissions Accounting

(continued)

GHG Emissions Inventory

2004 Amount: 162,497,000 tons of CO_2 ***Region:*** U.S.
2000 Amount: 186,000,000 tons of CO_2 ***Region:*** U.S.

AEP's emissions intensity fell from 1,940 lbs. of CO_2/MWh in 1999 to 1,820 lbs. of CO_2/MWh in 2003.

Third Party Vertification

Yes, through the Chicago Climate Exchange.

Reporting Protocol

Chicago Climate Exchange Rulebook and GHG Protocol.

Strategic Planning

Score: 21

Emissions Targets

Baseline year: 1998-2001 average ***Target year:*** 2010 ***Region:*** U.S.
Amount: 46,000,000 tonne reduction of CO_2 (cumulative)

As a founding member of the Chicago Climate Exchange, AEP has made a voluntary, legally binding commitment to cap and gradually reduce or offset its GHG emissions. In 2003, AEP committed to reduce or offset its emissions by 1% in 2003, rising to 4% by 2006, below the average of 1998–2001 levels. In August 2005, AEP expanded and extended its commitment to 4.25% in 2007, rising to 6% in 2010, below the same baseline. Through this commitment, AEP expects to reduce or offset approximately 46 million tonnes of GHG emissions. AEP's initiatives to meet this goal include both on-system actions, such as plant efficiency improvements, and off-system projects, such as reforestation projects and the purchase of emission reduction credits. AEP joined EPA's Climate Leaders program in 2003 and was recognized with a Climate Leader Protection Award in 2005 for its efforts to reduce greenhouse gases.

GHG Emissions Trading

Voluntary programs—AEP purchased allowances in the Chicago Climate Exchange's initial auction and is actively trading on the exchange. It is also on the board of directors of the International Emissions Trading Association.

Government programs—Not applicable.

Green Power

AEP is the third largest generator of wind energy in the United States, operating 311 MW of wind generation in Texas. The company also purchases and distributes an additional 373.5 MW of wind generation in Oklahoma and Texas. AEP also operates 884 megawatts of hydro and pumped-storage generation and has been testing biomass co-firing at some of its smaller coal plants. AEP co-fired biomass in 4,000 MW of coal-based power generation in the U.K., until the company sold these plants in 2004. AEP says that resource availability in terms of capital and land could become a limiting factor for large-scale deployment of biomass and wind technologies, both in the AEP fleet and in the U.S. as a whole.

Energy Efficiency

AEP has implemented a number of power plant efficiency improvements at its existing fossil and nuclear units and made lighting upgrades in all of its facilities in the 1990s. AEP also is implementing energy efficiency plans to offset 10% of the annual energy demand growth in its Texas service territory. Total investments for the four-year program will exceed $43 million, achieving more than 247 million KWh of energy efficiency gains. AEP says that conventional demand-side management programs rarely deliver adequate returns on investment within its service territory, however, especially given AEP's abundant supply of low-cost electricity and regulators emphasis on maintaining low rates rather than reducing demand. AEP is leading representatives of the U.S. power sector in the Asia-Pacific Partnership and has proposed a utility-to-utility technical transfer program in China and India that initially will focus on increasing the efficiency of coal-fired generation.

Commercial Business

AEP has proposed constructing up to 1,200 MW of commercial-scale integrated gasification combined cycle (IGCC) power plants in Ohio, West Virginia or Kentucky around 2010 and into the next decade. IGCC plants lower CO_2 emissions and are designed to accommodate retrofit of technology to capture and sequester CO_2 emissions. AEP also is leading the FutureGen Alliance that is partnering with DOE to develop the world's first IGCC plant that will capture and dispose of CO_2 in geologic formations. That plant is planned to be operational in the next decade.

AES Corporation

NYSE: ***AES***
Industry: ***Electric utilities***

AES says it does not expect implementation of the Kyoto Protocol to have a material impact on its revenues or projected earnings during the 2008–2012 commitment period. It says it has been spending considerable time on climate change and sees business opportunities coming out of Kyoto, noting that in some cases it should be able to produce and sell excess emission credits. AES has generation operations in seven countries that have ratified the Kyoto Protocol; 40% percent of its operating capacity is derived from coal. In the early 1990s, AES was one of the first companies to develop programs to offset CO_2 emissions from coal-fired plants through tree planting and forestland preservation. AES has also made recent investments in wind generation and believes it has the potential to become a top U.S. wind developer.

Summary Score: 34

Company Information	
	The AES Corporation is a global power company. AES operates in 27 countries on five continents, generating 44,000 megawatts of electricity through 124 power facilities and delivering electricity through 15 distribution companies. It had sales of $9.5 billion in 2004.
Contact Information	
CEO / Chairman	Paul T. Hanrahan / Richard Darman
Contact	Tel: 703-522-1315 • Web: www.aes.com
Address	4300 Wilson Blvd Arlington, VA 22203-4167 USA
Board Oversight	***Score: 3***
Board Committee	Environment, Safety, Social Responsibility and Technology
Committee Chair	John Koskinen, President, United States Soccer Foundation
Actions Taken	None identified on climate change or GHG controls.
Management Execution	***Score: 9***
CEO Statement	*At Sanford C. Bernstein & Co.'s. Strategic Decisions Conference, June 2005:* "[Kyoto] is something we have been spending a lot of time on and we actually see there may be some business opportunities coming out of this... There are things that you can do and things that we have done to improve the efficiency of the plants… in some cases we have excess credits. We also have [built-in pass-throughs] in many of our contracts…. "In terms of how we can create some offsets, we actually back in the early 1990s started planting trees for CO_2 credit for some of our plants in the United States. We are slightly ahead of our time and as a result we aren't going to get big credit for that, but for other things that are going on we are going through the various certification processes to get credit for CO_2 reductions. "That may actually be something we will invest a little bit of money in, because we think… it may have some real potential [in the long term]. Not a lot of people [are] getting into it right now. Mainly small players, but if you look at the prices for what the credits are trading at today, compared to what the cost of producing them is, it could be a pretty interesting business on a small scale."
Chief Environmental Officer	Laszlo Hary, Director Environmental Affairs
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	A factor in the CEO's 2004 compensation was AES's entrance into the wind generation business.
Public Disclosure	***Score: 5***
Company Statement	None identified, except for Form 10-K below.

AES Corporation

NYSE: ***AES***
Industry: ***Electric utilities***

Public Disclosure	*(continued)*
Securities Filings Statement	*Excerpt from Form 10-K:* "In July 2003, the E.U. 'Directive on Greenhouse Gas ('GHG') Emission Allowance Trading' (the 'Directive') was adopted. Pursuant to the Directive, a CO2 emissions cap-and-trade program known as the E.U. Emissions Trading Scheme ('EU-ETS') was created, which requires member states to limit emissions of CO_2 within their countries... Based on our current analyses, we expect that certain AES businesses will be under-allocated and others will be over-allocated. At present, we cannot predict whether compliance with the EU-ETS will have a material impact on our operations or results. "On February 16, 2005, the 'Kyoto Protocol to the United Nations Framework Convention on Climate Change' ('Kyoto') became effective.... however, we do not expect Kyoto implementation to have a material impact on our revenues or projected earnings during the 2008–2012 period. Over the course of the next several years, as decisions surrounding implementation of Kyoto become more detailed, we will have a better understanding of the impact of Kyoto on the Company. At present, we cannot predict whether compliance with Kyoto will have a material impact on our operations or results."
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Not queried.

Emissions Accounting	***Score: 7***
Savings Calculated by Company	***Amount:*** 6,111,132 tonnes of CO_2e ***Scope:*** Entity-level ***Time frame:*** 2002 These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program for AES Hawaii, Shady Point, Thames and Warrior Run. AES started programs in the early 1990s to offset carbon dioxide emissions from coal-fired plants by sponsoring the planting of 50 million trees in Guatemala and by preserving thousands of acres of forestland in South America. An estimate of total CO_2 emissions sequestered by these projects was not available from the company.
GHG Emissions Inventory	None identified.
Third Party Vertification	No. However, AES reported in late 2005 that it was going through various certification processes to get credit for CO_2 reductions.
Reporting Protocol	None identified.

Strategic Planning	***Score: 10***
Emissions Targets	None identified.
GHG Emissions Trading	***Voluntary programs***—See CEO Statement. ***Government programs***—In 2004, AES switched two plants in Hungary from burning low quality brown coal to burning wood and a combination of wood and coal. This switch reduced CO_2 emissions by more than 80%, allowing AES to trade carbon credits under the Kyoto Protocol. With lower emissions, the plants also earned a reduced environmental tax going forward. See also Form 10-K statement.
Green Power: ***Hydro***	Some 18% of AES's current operating capacity is derived from hydro facilities and less than 1% from biomass facilities. Large-scale hydropower represents significant portions of power purchased by AES utility companies in Cameroon, El Salvador, Brazil, Argentina and Venezuela.
Wind	AES also made three recent strategic investments in wind generation. AES invested in US Wind Force in 2004; acquired SeaWest, another wind developer, in March 2005; and announced a joint venture in June 2005 with renewable energy company EHN to develop wind generation projects in the New York market. AES believes these investments have the potential to make it a top U.S. wind developer and operator, with interests in more than 2,800 megawatts of development projects in 14 states. AES believes that wind generation will be one of the highest growth markets in Organization for Economic Cooperation and Development countries within the next five years and is a logical extension of its current contract generation business.
Energy Efficiency	None identified at corporate level.
Commercial Business	See Green Power.

Calpine Corp.

OTC Pink Sheets : ***CPNL***
Industry: ***Electric utilities***

Calpine believes the fastest and most effective way to reduce CO_2 emissions is to replace the nation's aging fleet of fossil plants with modern, highly efficient combined cycle power plants and more renewable energy resources. Calpine owns the largest fleet of combined-cycle natural gas-fired power plants and the largest fleet of geothermal power facilities in North America. It is also the nation's largest producer of combined heat and power, accounting for 20% of U.S. cogeneration capacity. In 2004, Calpine's board of directors adopted a resolution restricting its investments to low CO_2-emitting power plants only. Calpine has also pledged to reduce its U.S. GHG emissions by 4% per megawatt hour in 2003–2008. Calpine's CEO says the power sector—as the largest single source of CO_2—must take steps to reduce its total emissions and that voluntary measures alone may not be sufficient to achieve this objective. Calpine is a participant in the Clean Air Policy Initiative, which supports modest federal limits on power plant CO_2 emissions.

Summary Score: 55

Company Information

Calpine supplies electricity from a 26,000-megawatt fleet of natural gas-fired and geothermal power plants. It is the largest user of natural gas in the nation. Calpine owns, leases and operates integrated systems of plants in 21 U.S. states and in three Canadian provinces and is building a plant in Mexico. It had sales of $9.2 billion in 2004. In December 2005, Calpine filed voluntary petitions under Chapter 11 of the U.S. Bankruptcy Code.

Contact Information

CEO / Chairman	Robert P. May / Kenneth T. Derr
Contact	Tel: 408-995-5115 • Web: www.calpine.com
Address	50 W San Fernando St San Jose, CA 95113-2424 USA

Board Oversight

Score: 4

Board Committee	None identified.
Actions Taken	In 2004, Calpine's board of directors unanimously adopted a resolution restricting investments to only low carbon dioxide emitting power plants.

Management Execution

Score: 9

Chairman Statement	Former CEO Peter Cartwright (who left the company in November 2005) signed "Calpine's Policy on Climate Change Issues." (See also Public Disclosure section.) Scientific American magazine recognized Cartwright as the "Business Leader of the Year" in 2004 for his commitment to low carbon technologies. During a California Public Utilities Commission meeting on climate change in February 2005, Cartwright said that the transition to cleaner generation would take shutting down inefficient gas-fired plants, curbing reliance on out-of-state coal plants and building liquefied natural gas terminals on the state's coast. He also said that California should encourage energy efficiency, renewable energy development and more efficient gas-fired plants and that the state needs to keep a competitive power market so that producers are rewarded for efficiency and penalized for high emissions. At the national level, Cartwright said, new gas-fired plants could replace the generation lost if half of all old coal-fired plants and all old gas-fired plants were shut down. While gas consumption would increase by 2.5 trillion cubic feet per year, he said, the cost of power would remain roughly the same since the estimated $3.6 billion rise in annual fuel costs would be countered by $3 billion in CO_2 offset spending.
Chief Environmental Officer	Fred Manuel, Senior Vice President, Central Operations, Safety, Health & Environment
Levels to CEO	0
Climate Change Executive	None identified.
Executive Committee	None identified
Link to Executive Compensation	Executive compensation includes a link to environmental stewardship. In addition, every employee has a line item in his or her performance review that addresses environmental commitment.

Calpine Corp.

OTC Pink Sheets : ***CPNL***
Industry: ***Electric utilities***

Public Disclosure

Score: 11

Company Statement

From company website:

"Calpine is committed to building clean, efficient new power plants, which will lead to the reduction of CO_2 emissions, and to working with policymakers on other steps to reduce emissions within the energy industry.

"Generation of electricity is the largest single source of man-made CO_2 emissions in the United States. The electric power sector will need to find ways to lower the overall carbon emissions associated with producing electricity in this country while still providing consumers with affordable and reliable electric power. The electric power sector has already made early strides at reducing its carbon emissions through various voluntary programs. Such efforts are to be commended and will continue to play an important role for the country. The fastest and most effective way to reduce CO_2 is by replacing the nation's aging fleet of fossil plants with modern, highly efficient combined cycle power plants and more renewable resources. Calpine has chosen to build and acquire a fleet of modern combined cycle power plants and operates the world's largest portfolio of renewable geothermal generation.

"Voluntary programs alone may not provide the action needed to tackle this challenge. Calpine supports programs at the federal, regional and state levels that include appropriate reductions in CO_2 emissions and provide flexible, market-based solutions that will reward the transition from more carbon-intensive generation to efficient, low carbon-intensive generation and renewable power."

Securities Filings Statement

Excerpt from Form 10-K:

"Calpine's goal is to produce low-cost electricity with minimal impact on the environment. To achieve this we've assembled the largest fleet of combined-cycle natural gas-fired power plants and the largest fleet of geothermal power facilities in North America. Both fleets utilize state-of-the-art technology to achieve our goal of environmentally friendly power generation.

"Our fleet of more than 25,800 MW of modern, combined-cycle natural gas-fired power plants is highly efficient. They consume significantly less fuel to generate a MWh of electricity than older boiler/steam turbine power plants. This means that less air pollutants enter the environment per unit of electricity produced, and far less pollutants are emitted compared to electricity generated by coal-fired power plants.

"Calpine's 750-MW fleet of geothermal power plants utilizes natural heat sources from within the earth to generate electricity with negligible air emissions. The table below summarizes approximate air pollutant emission rates from Calpine's combined-cycle natural gas-fired power plants and our geothermal power plants compared to average emission rates from US coal, oil and gas-fired power plants. [The Table, which includes CO_2 emission rates, is not included here.]

"Calpine's environmental record has been widely recognized.

• Calpine's Board of Directors unanimously adopted a resolution restricting investments in low carbon dioxide emitting power plants…"

Company Report: None identified.

GRI Report: None identified.

Carbon Disclosure Project: Not queried.

Emissions Accounting

Score: 11

Savings Calculated by Company

None identified.

Calpine is participating in a pilot carbon geological sequestration project to store CO_2 in a depleted natural-gas reservoir in California. The project is part of the West Coast Regional Carbon Sequestration Partnership set up by the U.S. Department of Energy.

GHG Emissions Inventory: ***2003 Amount:*** 33,166,696 tonnes of CO_2 ***Region:*** U.S.

Third Party Vertification: Yes. Calpine was the first independent power producer to earn the California Climate Action Registry's distinction of Climate Action Leader by certifying its 2003 CO_2 emissions inventory with the registry. Calpine's Canadian businesses also participate in Canada's Climate Change Voluntary Challenge and Registry. In 2002, Calpine was rated a Gold Champion Level Reporter, by achieving 90 out of a possible 100 points.

Reporting Protocol: Appendix X (Power/Utility Certification Protocol) for the California Climate Action Registry.

Calpine Corp.

OTC Pink Sheets : ***CPNL***
Industry: ***Electric utilities***

Strategic Planning		***Score: 20***
Emissions Targets	***Baseline year:*** 2003 ***Target year:*** 2008 ***Region:*** U.S. (intensity rate) ***Amount:*** 4% decrease in GHG emissions per MWh produced for facilities Calpine made this commitment as part of EPA's Climate Leaders program.	
GHG Emissions Trading	***Voluntary programs***—In October 2005, Calpine launched "Calpine Carbon," a voluntary carbon trading business that will focus on developing bilateral and other voluntary carbon trading in key markets in the United States, Mexico and Canada. Calpine has two people working full time on this effort. ***Government programs***—Calpine expects to participate in the newly formed Northeastern Regional Greenhouse Gas Initiative (RGGI).	
Green Power	Calpine operates the world's largest portfolio of geothermal generation, totaling 750 MW. The U.S. Department of Energy and the U.S. EPA selected Calpine as a Green Power Leadership Award winner for innovative renewable energy technology in the use of reclaimed water to enhance geothermal power production at The Geysers.	
Energy Efficiency	Calpine operates the nation's largest fleet of combined cycle natural gas power plants, which uses at least 30% less gas to produce the same amount of electricity as older gas-fired plants. Calpine and General Electric have teamed up for the North American launch of GE's most advanced gas turbine technology, the H System, which will utilize a more efficient gas turbine combined-cycle system. The 775-MW project located in Southern California is expected to enter commercial operation in 2008. Calpine Power has instituted a program of proprietary operating procedures to reduce gas consumption and lower air pollutant emissions per MWh of electricity generated. Calpine subsidiary PSM (Power Systems Manufacturing) is developing gas turbine components to improve turbine efficiency and to reduce emissions.	
Commercial Business	In addition to having the nation's largest fleet of combined cycle natural gas power plants and geothermal plants, Calpine is the nation's largest producer of combined heat and power, accounting for 20% of U.S. cogeneration capacity.	

Cinergy Corp.

NYSE: ***CIN***
Industry: ***Electric utilities***

Cinergy produced a board-reviewed report in 2004 that concluded CO_2 emissions are likely to be regulated, resulting in increased generating costs and electricity prices for its customers. Cinergy's CEO has been outspoken in calling for prudent GHG regulations that would include cap-and-trade mechanisms. Such policies are needed, he says, in order to provide cost-effective solutions for its shareholders and customers, while ensuring a continuing role for coal in a carbon-constrained world. Cinergy also devoted a large portion of its 2004 annual report to a discussion of climate change. In 2003, Cinergy was one of the first utilities to set a CO_2 management goal, calling for a 5% cut below its 2000 level by 2010–2012. It is now conducting a feasibility study for construction of an integrated gasification combined cycle coal plant.

Summary Score: 73

Company Information

Cinergy's portfolio consists of two core businesses: regulated operations and commercial businesses. Its regulated operations serve 1.5 million electric customers and about 500,000 gas customers in Ohio, Indiana and Kentucky. PSI Energy owns 7,000 MW of generating capacity. In addition, Cinergy's commercial businesses own 6,300 MW of capacity. Cinergy had sales of $4.7 billion in 2004. It has agreed to be acquired by Duke Energy for $9 billion. When the transaction is completed, Duke will become one of the nation's largest electric utilities.

Contact Information

CEO / Chairman	James E. Rogers
Contact	Tel: 513-421-9500 • Web: www.cinergy.com
Address	139 E. 4th St. Cincinnati, OH 45202 USA

Board Oversight

Score: 9

Board Committee	Public Policy Committee.
Committee Chair	Phillip Cox, President and CEO of Cox Financial
Actions Taken	The Public Policy Committee oversees and reviews all corporate and subsidiaries' environmental activities and compliance, including climate change. The committee reviewed a report on climate change that was published in December 2004 in response to a shareholder request.

Management Execution

Score: 16

CEO Statement — *From 2004 annual report (Global Warming: Can We Find Common Ground?):*

"Some may be surprised that we would devote our annual report to a topic as controversial as global warming. Cinergy operates coal-fired generating stations and burns 25 to 30 million tons of coal per year. Coal has been linked to global warming… What does this have to do with your investment in Cinergy… everything… To simply avoid this debate and fail to understand the implications of the regulation of CO_2 and GHG on our company is not an option. This conclusion is underpinned by the numerous signposts we have observed in the last few years:

- The states are taking action [and} an increasing number of U.S. senators are expressing concern …
- The Kyoto Protocol to reduce GHG was approved by 38 industrial nations and became law…
- A growing number of individual shareholders and shareholder groups are asking companies, such as Cinergy, to quantify the risks associated with GHG emissions
- CO_2 and GHG emissions trading markets are developing in Europe and the United States
- Global warming is becoming part of our everyday consciousness

"…We must act now. Around the world today, at least 850 coal-burning power plants are on the drawing board… Will they be designed with new technologies that burn coal more efficiently and with significantly fewer emissions, or will they be built using existing combustion technology? The need to accelerate the commercialization of new technology is critical."

Chief Environmental Officer	John Stowell, Vice President—Federal Affairs, Environmental Strategy and Sustainability
Levels to CEO	1

Cinergy Corp.

NYSE: ***CIN***
Industry: ***Electric utilities***

Management Execution	*(continued)*
Climate Change Executive	John Stowell
Executive Committee	Greenhouse Gas Management Committee. Comprised of eight members of senior management, this committee also includes a representative from Environmental Defense (an environmental group) as an ex-officio member. Chaired by Eric Kuhn, Principal Environmental Scientist, this committee is charged with soliciting and evaluating GHG reduction projects that qualify for Cinergy's $21 million fund for projects that reduce its GHG footprint.
Link to Executive Compensation	Senior management compensation is linked to energy efficiency goals.

Public Disclosure	***Score: 13***
Company Statement	*From Air Issues Report to Stakeholders: An Analysis of the Potential Impact of Greenhouse Gas and Other Air Emission Regulation on Cinergy Corp:* "Cinergy believes the following should serve as a basis for the climate change debate…: • To minimize the risk of economic disruption brought on by unexpectedly high CO_2 prices, an escalating price cap on carbon allowance prices should be considered during the first 15 or 20 years of the program. • The economy is best served by establishing a glide path that first stops the growth in GHG emissions, and then gradually reduces them, with steeper reductions when new technologies are ready for deployment. • GHG policy must recognize that climate change is a decades-long issue. The policy should promote public/private partnerships for the research and development needed to develop the technology solutions that will permit the drastic reduction or elimination of GHG emissions during and beyond the 21st century. • GHG policy must recognize the need to continue using coal; it should encourage development and deployment in the near term of technologies such as integrated gasification combined cycle that uses coal more efficiently, produces fewer emissions and solid wastes and may permit the long-term storage of CO_2. "… Certain analyses indicate that a '4 pollutant all at once' approach is less expensive than a '3 pollutant followed by CO_2 regulation later.'… 3P control investments in particular units might seem economically reasonable, but will be bad investments once CO_2 regulations are known and implemented… Cinergy, however, does not agree with this view. Our modeling shows that, except for some of the smaller units for which decisions will be deferred, 3P and 4P compliance plans are not materially dissimilar."
Securities Filings Statement	*From Form 10-K:* "[W]e anticipate a mandatory program to reduce GHG emissions will exist in the future. We expect that any regulation of GHGs will impose costs on Cinergy. Depending on the details, any GHG regulation could mean: • Increased capital expenditures associated with investments to improve plant efficiency or install CO_2 emission reduction technology (to the extent that such technology exists) or construction of alternatives to coal generation; • Increased operating and maintenance expense; • Our older, more expensive generating stations may operate fewer hours each year because the addition of CO_2 costs could cause their generation to be less economic; and • Increased expenses associated with the purchase of CO_2 emission allowances, should such an emission allowances market be created. "We would plan to seek recovery of the costs associated with a GHG program in rate regulated states where cost recovery is permitted." "The Form 10-K statement also discusses Cinergy's voluntary GHG management commitment, its plans to construct an integrated gasification combined cycle facility and a public nuisance lawsuit brought against it and four other electric utilities by eight states requesting court-ordered reductions in their GHG emissions.
Company Report	*Sustainability Report 2004: Vision for the Future*
GRI Report	See above.
Carbon Disclosure Project	Not surveyed, but provided answers to the questionnaire on its website.

Cinergy Corp.

NYSE: ***CIN***
Industry: ***Electric utilities***

Emissions Accounting		***Score: 19***
Savings Calculated by Company	***Amount:*** 2,298,897 tonnes of CO_2 equivalent	***Scope:*** Entity-level ***Time frame:*** 2002
	These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program. Cinergy has been investing in GHG reducing projects and programs since 1995, including forest carbon sequestration projects.	
Emissions Accounting	*(continued)*	
GHG Emissions Inventory	***2004 Amount:*** 62,000,000 tonnes CO_2e ***1990 Amount:*** 42,000,000 tonnes CO_2e	***Region:*** U.S. ***Region:*** U.S.
	In the last five years, Cinergy spent about $1 billion to add 2,000 MW of natural gas-fired generating capacity. Its total coal-fired generation capacity has dropped from approximately 87% to 73% since 1998.	
Third Party Vertification	No, except through Continuous Emission Monitors. Cinergy says that it plans to engage a third party auditor to verify its baseline and emission reductions.	
Reporting Protocol	None identified.	
Strategic Planning		***Score: 16***
Emissions Targets	***Baseline year:*** 2000 ***Target year:*** 2010–2012 ***Region:*** U.S. ***Amount:*** Not to exceed 63.5 million tonnes per year	
	Cinergy set this target as part of the U.S. EPA's Climate Leaders program; it equals a 5% reduction from 2000 levels. Cinergy plans to achieve these cuts despite rising customer demand and greater internal needs for electric generation to operate the pollution control equipment being installed at most of its stations. Cinergy expects to spend $21 million in 2004–2010 on projects to reduce or offset its GHG emissions. Cinergy's goal is to obtain at least two-thirds of these reductions through efficiency improvements at existing generating plants. Other elements of the plan, developed in collaboration with Environmental Defense, include employing effective demand side management programs, adding renewable energy, sequestering carbon through forest preservation, purchasing allowances when economically prudent and possibly sequestrating GHGs in underground geologic formations. Cinergy is undertaking these activities with the expectation that they will be directly or indirectly profitable by adding to overall company revenues or providing more cost efficient production and delivery of electricity to its customers.	
GHG Emissions Trading	None identified. Cinergy says it is evaluating participation in the Chicago Climate Exchange.	
Green Power	Cinergy does not expect that renewables will make up a very large percentage of its total generation portfolio, citing their relatively limited availability in its region. Cinergy has invested in more than 40 landfill gas recovery projects and a 35 MW, run-of-the-river hydroelectric project. It undertook two renewable demonstration projects in 2004. In 2004, Cinergy completed a study for the U.S. Department of Agriculture on the potential for biomass co-firing. In 2001, PSI Energy received approval to offer a green power program for residential customers, but fewer than 300 customers had enrolled by the end of 2004. Cinergy is revising the program but expects that any demand reduction resulting from a green power option is likely to have only a minimal effect on its GHG emissions.	
Energy Efficiency	Since the early 1990s, Cinergy has saved more than 800 million kWh through its demand-side management efforts. It is expanding these efforts and expects to save more than 1 billion kWh in 2004—2009. Cinergy has created Cinergy Solutions, which provides energy management services to a number of industrial and large commercial customers. It estimates these programs have resulted in the reduction of 3 million tons of GHGs. It also has invested in at least 12 combined heat and power projects.	
Commercial Business	In 2004, Cinergy signed a letter of intent with General Electric and Bechtel for a feasibility study to construct a 500 to 600 megawatt integrated gasification combined cycle plant, which both lowers CO2 emissions and more easily allows for carbon capture.	

Constellation Energy Group Inc.

NYSE : ***CEG***
Industry: ***Electric utilities***

Constellation Energy's board of directors adopted a policy on climate change in 2001. The board supports the continuation of a research program on the science of climate change, saying there is "no clear consensus on the extent of the problem, its implications or actions needed to mitigate it." The board says the company will continue to promote efficient power and environmental technologies and energy services. To date, Constellation Energy says it has been focusing on increased plant efficiency, energy conservation, emission controls, site cleanups, waste reduction, recycling and a diverse fuel mix. Nearly half of the company's generation comes from nuclear power plants. Constellation reports that its rate of CO_2 emitted per unit of electricity is among the lowest of any of the largest U.S. generation companies.

Summary Score: 23

Company Information

Constellation Energy is a North American energy company that includes a merchant energy business and Baltimore Gas and Electric Co. (BGE), a regulated electric and gas public utility in central Maryland. It had sales of $12.5 billion in 2004. In December 2005, Constellation Energy and FPL Group announced a planned merger that will create the nation's largest competitive energy supplier and the nation's second-largest electric utility. The new company will be named Constellation Energy. It will be the nation's third largest producer of nuclear power.

Contact Information

CEO / Chairman	Mayo A. Shattuck III
Contact	Tel: 410-783-2800 • Web: www.constellationenergy.com
Address	750 E Pratt St Baltimore, MD 21202-3106 USA

Board Oversight

Score: 3

Board Committee	None identified.
Actions Taken	The board of directors adopted a policy on climate change in April 2001.

Management Execution

Score: 1

CEO Statement	None identified.
Chief Environmental Officer	Paul J. Allen, Senior Vice President, Corporate Affairs
Levels to CEO	2
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 6

Company Statement *From company website:*

"There is growing concern that man-made increases of [GHGs] will cause an increase in the average temperature of the Earth, with undesirable impacts on global climate systems. There is currently no clear consensus on the extent of the problem, its implications, or the actions needed to mitigate it. However, scientists and policy-makers around the world have been working for more than a decade to address this critical issue.

"Constellation Energy has been meeting the joint goals of providing for the nation's energy needs and decreasing impact on the climate. We've been meeting these goals through increased plant efficiency, energy conservation, emission controls, site cleanups, waste reduction and recycling, and a diverse fuel mix that includes renewable energy and emission-free nuclear power.

"Our Position: As a proven leader in the energy marketplace, Constellation Energy is proud to be able to deliver cost-effective, flexible energy solutions that will help reduce the potential problems associated with climate change. We support the continuation of a research program to help us understand the science of global climate change. As the scientific, economic, and policy debates continue on a path toward determining the best approaches for mitigating climate change, we will continue to promote efficient power and environmental technologies and energy services that will provide a wide range of choices to protect the environment."

Constellation Energy Group Inc.

NYSE : ***CEG***
Industry: ***Electric utilities***

Public Disclosure	*(continued)*
Securities Filings Statement	*From Form 10-K:* "Future initiatives regarding [GHG] emissions and global warming continue to be the subject of much debate. As a result of our diverse fuel portfolio, our contribution to [GHGs] varies by plant type. Fossil fuel-fired power plants are significant sources of [CO_2] emissions, a principal greenhouse gas. Our compliance costs with any mandated federal greenhouse gas reductions in the future could be material."
Company Report	*Environmental Progress Report 2004: It Matters To You, It Matters To Us*
GRI Report	None identified.
Carbon Disclosure Project	Not queried.

Emissions Accounting	***Score: 5***
Savings Calculated by Company	***Amount:*** 7,498,721 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 2004 These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program. Constellation Energy reports that its rate of CO_2 emitted per unit of electricity declined from about 1,300 lbs/MWh in 2000 to around 900 lbs/MWh in 2003, making it among the lowest rates of any of the largest U.S. generation companies. Constellation Energy attributes the decrease in large part to increased reliance on non-emitting capacity that includes nuclear, renewable and alternative fuels.
GHG Emissions Inventory	None identified.
Third Party Vertification	Yes. ICI's performance in 2004 is being verified by Enviros Consulting Ltd., and the detailed performance results and verification statement will be published on its website.
Reporting Protocol	GHG Protocol

Strategic Planning	***Score: 8***
Emissions Targets	Constellation Energy has not set any public targets, other than to support the electric power sector's voluntary commitment to reduce sector-wide GHG emission intensity by 3–5% from 2000–2002 levels by 2010–2012.
GHG Emissions Trading	None identified.
Green Power	Alternative energy, which includes hydro, biomass, solar and geothermal, provided 4.6 % of the company's fuel mix in 2004. The company has "green" commercial customers and is supplying renewable energy to three New England utilities—Central Maine Power, Bangor Hydroelectric and Connecticut Light & Power.
Energy Efficiency	Constellation provides large industrial and commercial customers with comprehensive energy-management programs. BGE HOME encourages upgrades to more energy-efficient heating and air conditioning systems and proper use and maintenance of existing energy equipment. Since joining EPA's Energy Star program in 1995, the company has saved enough energy at its facilities to prevent the release of more than 210,000 tons of CO_2.
Commercial Business	The combination of Constellation Energy and FPL Group will create the nation's third largest producer of nuclear power. Constellation and FPL are members of NuStart Energy Development LLC, which plans to submit to the Nuclear Regulatory Commission two combined construction permit-operating license (COL) applications. Constellation plans to file a COL application in 2008 through UniStar Nuclear, its joint venture with Areva Inc., the Areva group's U.S. subsidiary. The second COL application would be submitted at an as-yet-undetermined date. UniStar was formed to deploy and market Areva's European Pressurized Reactor (EPR) in the United States.

Dominion Resources Inc.

NYSE : ***D***

Industry: ***Electric utilities***

Dominion Resources believes that near-term solutions to climate change that impose rigorous emission reduction requirements upon a single sector of the economy, in the absence of the technologies needed to achieve such reductions, "would be economically disruptive." Dominion believes its substantial nuclear fleet and natural gas production act as natural offsets against increased costs that would result from CO_2 emission constraints. It is undertaking projects to improve the overall efficiency of its generation mix and to sequester carbon, reduce gas transmission pipeline emissions and improve efficiency in exploration and production. *The company declined to comment on this profile.*

Summary Score: 27

Company Information	
	Dominion Resources is one of the nation's largest producers of energy. Dominion also is one of the largest independent oil and natural gas exploration and production companies in North America and operates the nation's largest underground natural gas storage system. Its subsidiaries include Virginia Electric and Power Company, Consolidated Natural Gas Company and Dominion Energy. It had sales of $14 billion in 2004.

Contact Information	
CEO / Chairman	Thomas E. Capps
Contact	Tel: 804-819-2000 • Web: www.dom.com
Address	120 Tredegar St Richmond, VA 23219-4306 USA

Board Oversight	***Score: 1***
Board Committee	None identified.
Actions Taken	In its statement of opposition to a 2005 shareholder proposal addressing climate change, the company's board of directors stated, "Dominion senior management updates the board on the company's environmental record, compliance and positions on emerging, evolving or ongoing environmental issues…. We also believe that Dominion is responding to the potential for future CO_2 and other emission policies, while appropriately involving our Board."

Management Execution	***Score: 2***
CEO Statement	None identified.
Chief Environmental Officer	Pamela Faggert, Vice President and Chief Environmental Officer
Levels to CEO	0
Climate Change Executives	None identified.
Executive Committee	None identified.
Link to Executive Compensation	Performance measures for 2004 executive compensation included unspecified stewardship goals.

Dominion Resources Inc.

NYSE : ***D***
Industry: ***Electric utilities***

Public Disclosure ***Score: 8***

Company Statement *From 2003 Environmental Report:*

"While scientists and policy makers continue to enhance their understanding of the science and possible impacts of global climate change, there is currently no clear consensus on the extent and implications of global climate change or on what actions are needed to address this issue. As the debate evolves, Dominion continues to meet the growing energy needs of our customers through our balanced portfolio of assets including electric generation, gas exploration and production, transmission and distribution. If carbon emissions are to be reduced, costs will increase to some assets. However, there will be increased pressure on the demand for natural gas. This in turn will increase prices for both natural gas and power. Dominion's substantial nuclear fleet and natural gas production act as natural offsets against such increased costs.

"As of the end of 2004, our generation businesses' [GHG] emission rate is well below the industry average. Dominion is in the process of renewing operating licenses for its existing nuclear and hydroelectric units. This, coupled with the deployment of new, highly efficient technologies to meet future energy demands, will continue to diversify our generation portfolio. In addition, we have undertaken a number of other initiatives to reduce or avoid greenhouse gas emissions, including projects to sequester carbon, reduce gas transmission pipeline emissions, and improve efficiency in exploration and production and electric generation operations. The optimal approach should effectively promote the development and deployment of technology-based solutions while also allowing a continued diverse energy mix to preserve a secure, reliable and affordable energy supply. This is crucial to sustaining and enhancing economic, social and environmental progress domestically and globally….

"Dominion continues to be actively engaged through open dialogue and public stakeholder processes with regulatory and policy decision-makers, environmental groups, the electric utility industry and other stakeholders at the national and state levels to advocate policies and approaches governed by these principles. We believe [President Bush's] Clear Skies proposal presents a workable step toward accomplishing these goals and that pursuit of such legislation at the national level should continue."

Securities Filings Statement *Excerpt from Form 10-K:*

"Currently, the Bush Administration has indicated that it will not pursue ratification of the [Kyoto] Protocol and has set a voluntary goal of reducing the nation's greenhouse gas emission intensity by 18% over the next 10 years. Several legislative proposals that include provisions seeking to impose mandatory reductions of [GHG] emissions are under consideration in the United States Congress. Several Northeast states have already or are considering the imposition of mandatory carbon dioxide (CO_2) reductions through the development of a regional cap-and-trade program. The cost of compliance with the Protocol or other mandatory [GHG] reduction obligations could be significant. Given the highly uncertain outcome and timing of future action, if any, by the U.S. federal government on this issue, Dominion cannot predict the financial impact of future climate change actions on its operations at this time."

Company Report ***Environmental Report***

GRI Report Dominion says it gave consideration to GRI guidelines in drafting its ***Environmental Report.***

Carbon Disclosure Project Declined to answer questionnaire.

Dominion Resources Inc.

NYSE : ***D***
Industry: ***Electric utilities***

Emissions Accounting		***Score: 11***
Savings Calculated by Company	***Amount:*** 9,265,652 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 2002 These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program. Dominion Resources reported that its carbon intensity fell from around 0.62 tons/MWh in 2000 to around 0.54 tons/Mwh in 2003. The reduction was achieved in large part through changes in its fleet of power plants. In 2003, the company retired two oil-fired units and replaced them with 550 MW of natural gas-fired combined cycle technology. Dominion also converted two coal-fired units to natural gas.	
GHG Emissions Inventory	***2003 Amount:*** 52,800,000 tons of CO_2 ***Region:*** U.S. ***2000 Amount:*** 50,800,000 tons of CO_2 ***Region:*** U.S. Since 2000, Dominion has added more than 4,000 MW of new gas-fired generation, more than 2,000 MW of nuclear generation and 80 MW of biomass generation.	
Third Party Vertification	No, except through Continuous Emission Monitors.	
Reporting Protocol	None identified.	

Strategic Planning		***Score: 5***
Emissions Targets	Dominion has not set any public targets, other than to supports the electric power sector's voluntary commitment to reduce sector-wide GHG emission intensity by 3–5% from 2000–2002 by 2010–2012.	
GHG Emissions Trading	None identified.	
Green Power	Except for large-scale hydroelectric and pumped storage plants, Dominion has limited involvement in renewable energy development. The company recently added an 80 MW facility capable of burning wood to its portfolio. Dominion says on its website that "the company continues to evaluate the technical and economic feasibility of existing and emerging alternative energy technologies to further diversify its generation portfolio in ways that provide continued shareholder value and enhance our environmental performance." Since October 2003, Dominion North Carolina Power customers have been able to participate in the "NC GreenPower Program."	
Energy Efficiency	In-house, Dominion Resources has implemented energy conservation projects following a Six Sigma approach. Dominion also provides energy efficiency information to homeowners and businesses. It makes a variety of web resources available to promote better awareness and planning, including an energy survey and an appliance energy usage calculator.	
Commercial Business	Dominion believes its substantial nuclear fleet and natural gas production act as natural offsets against increased costs that would result from carbon emission constraints.	

DTE Energy Co.

NYSE : ***DTE***
Industry: ***Electric utilities***

DTE Energy produced a climate change report through its Public Responsibility Committee in 2005. The report lists Detroit Edison's GHG emissions. The company achieved a 2% reduction in its CO_2 emissions in 1990–2004. DTE Energy says that implementation of the Kyoto Protocol would have "a significant adverse impact on the U.S. economy" and that it could also have a substantial long-term impact on the company "unless major technology breakthroughs make geologic sequestration, renewable energy or a hydrogen-based system more viable." DTE Energy Ventures has invested approximately $100 million in companies that are focused on distributed generation and clean energy technologies. DTE Energy Partnerships works with major electricity customers and partners to improve the energy efficiency of their operations.

Summary Score: 50

Company Information

DTE Energy operates its utilities business primary through Detroit Edison and MichCon. It also runs several non-utility subsidiaries engaged in energy marketing and trading, energy services, and various other electricity, coal and gas related businesses. It had sales of $7.1 billion in 2004.

Contact Information

CEO / Chairman	Anthony F. Earley, Jr.
Contact	Tel: 313-235-4000 • Web: www.dteenergy.com
Address	2000 2nd Avenue Detroit, MI 48226 USA

Board Oversight

Score: 8

Board Committee	Public Responsibility Committee
Committee Chair	Alfred Glancy III, Chairman, Unico Investment Co.
Actions Taken	In response to a shareholder resolution, the Public Responsibility Committee oversaw production of a 2005 report on the company's steps to control CO_2 and other air emissions.

Management Execution

Score: 8

CEO Statement — *From Addressing Climate Change and Air Emissions report (2005):*

"I think it's important that you understand the hurdles we face to cut emissions and meet federal and state requirements, and the concern surrounding global climate change. I also want you to know how proactive we are on these fronts…

"Our approach to addressing emissions is pragmatic, but progressive. DTE is taking measured steps in the short term to ensure meaningful results in the long term. We believe this is the best way to continue our progress on emission reductions and develop a sustainable, effective climate change policy…

"For me it's more than a business decision. I have a personal stake in keeping our planet clean—four grown sons. I want their children and their children's children to enjoy the natural beauty of this earth as I have. I am confident that they will."

Chief Environmental Officer	Douglas Gipson, Executive Vice President and Chief Nuclear Officer
Levels to CEO	1
Climate Change Executive	Gerard Anderson, President and Chief Operating Officer, DTE Energy
Executive Committee	Environmental Steering Committee
Link to Executive Compensation	None identified.

DTE Energy Co.

NYSE : ***DTE***
Industry: ***Electric utilities***

Public Disclosure

Score: 9

Company Statement

From *Addressing Climate Change and Air Emissions* report (2005):

"The [U.S. Department of Energy] and others have determined that the Kyoto Treaty would have a significant adverse impact on the U.S. economy. If the treaty were implemented, the electric utility industry would have to take huge steps to achieve the Kyoto goal and the cost of electricity would rise sharply. This would have repercussions throughout the economy. However, if treaty requirements were implemented in the U.S., the initial impact on DTE Energy would not likely be substantial. In 2003, Detroit Edison achieved CO_2 emissions 6% below the emission level in 1990. The company is committed to managing emissions or creating emission offsets to achieve short-term goals. Maintaining Kyoto levels long-term could result in a substantial impact on the company unless major technology breakthroughs make geologic sequestration, renewable energy or a hydrogen-based system more viable."

Securities Filings Statement

Excerpt from Form 10-K:

"Environmental laws and liability may be costly… Compliance with these regulations can significantly increase capital spending, operating expenses and plant down times. These laws and regulations require us to seek a variety of environmental licenses, permits, inspections and other regulatory approvals. We may also incur liabilities because of our emission of gases that may cause changes in the climate. The regulatory environment is subject to significant change and, therefore, we cannot predict future issues."

Company Report

Progressive Action, Practical Steps: Addressing Climate Change and Air Emissions

GRI Report

None identified.

Carbon Disclosure Project

Not queried.

Emissions Accounting

Score: 11

Savings Calculated by Company

Amount: 30 million tons of CO_2e ***Scope:*** Project-level
Time frame: Not determined.

DTE Biomass Energy operates 29 landfill methane recovery systems in the United States, generating renewable forms of energy to offset approximately 30 million tons of CO_2 equivalent.

DTE Energy, along with other partners, is involved in the Rio Bravo Carbon Sequestration Project to protect 65,000 acres of endangered rainforest in Belize. The project combines land acquisition and sustainable forestry and is expected to sequester approximately 2.4 million tonnes of carbon over 40 years.

GHG Emissions Inventory

2004 Amount: 43,000,000 tons of CO_2 ***Region:*** U.S.
1990 Amount: 44,000,000 tons of CO_2 ***Region:*** U.S.

This inventory pertains to Detroit Edison's emissions only.

2003 Amount: 860 tons of CO_2 per gigawatt-hour ***Region:*** U.S. (intensity rate)
1996 Amount: 980 tons of CO_2 per gigawatt-hour ***Region:*** U.S. (intensity rate)

This inventory pertains to Detroit Edison's emissions only.

Third Party Vertification

No, except for Continuous Emission Monitors.

Reporting Protocol

Not identified.

DTE Energy Co.

NYSE : ***DTE***
Industry: ***Electric utilities***

Strategic Planning		***Score: 14***
Emissions Targets	***Baseline year:*** 1999 ***Target year:*** 2005 ***Region:*** U.S. ***Amount:*** 5% reduction of CO_2	
GHG Emissions Trading	None identified. DTE Energy says on its website that it decided against becoming a charter member of the Chicago Climate Exchange. It says it supports the concept and details of this emission-trading program, and remains committed to meeting a similar emissions reduction goal.	
Green Power	In 1996, Detroit Edison introduced the SolarCurrents program and became the first utility in the nation to provide customers with solar power through the grid from a central facility. DTE Biomass Energy operates 29 landfill gas recovery projects. Methane recovered from these projects is converted into pipeline-quality gas, steam, or electricity. These landfill projects have captured the equivalent of more than 25 million metric tons of CO_2. Detroit Edison has promoted geothermal technology in its service area, where nearly 4,000 residential units and two-dozen commercial businesses have geothermal systems. It has also invested $3 million in a pilot project to develop stationary fuel cells that run on hydrogen.	
Energy Efficiency	Detroit Edison has completed energy efficiency improvements (turbine generator upgrades) on several of its largest generating units to produces more electricity with the same, or less, air emissions. In addition, DTE Energy Partnerships works with major electricity customers and partners to improve the energy efficiency of their operations.	
Commercial Business	Detroit Edison generates nuclear energy, and is trying to increase the usage of nuclear power. In addition, DTE Energy is Michigan's industrial representative in the Midwest Regional Carbon Sequestration Partnership. Battelle-Columbus is coordinating this multi-state project, supported with U.S. Department of Energy funding, to identify the potential for geologic and terrestrial sequestration within the region and demonstrate the viability of this approach. DTE Energy has a candidate site for a geologic sequestration demonstration project in Phase 2 of the Partnership, which began in 2005. DTE Energy Ventures invests in a portfolio of energy technology companies and facilitates the creation of new technology-related businesses. Its primary focus is on distributed generation and clean energy technologies. To date, it has invested approximately $100 million in companies and venture funds, including Plug Power, solar projects in California, and the DTE Energy Hydrogen Technology Park in Southfield, Mich.	

Duke Energy Corp.

NYSE : ***DUK***
Industry: ***Electric utilities***

Duke Energy's CEO is an advocate of a carbon tax that would address GHG emissions from all sectors of the economy. It does not believe that instituting a voluntary, internal GHG emissions reduction program would be in the best interest of its customers or investors. Duke believes that its balanced portfolio, which includes nuclear, natural gas and hydro plants as well as coal-fired generation, could mitigate the potential negative effects of a carbon tax. Looking to the future, Duke regards nuclear power as "the single most significant technology available for reducing/avoiding future [GHG] emissions from electricity generation." Duke believes that carbon sequestration also has significant potential.

Summary Score: 47

Company Information	
	Duke Energy is a diversified energy company with a portfolio of natural gas and electric businesses, both regulated and unregulated, in the Americas and an affiliated real estate company. Business unit Duke Power is one of the nation's largest electric utilities, serving more than 2 million customers in North Carolina and South Carolina. Duke Energy had sales of $22.5 billion in 2004. Duke has agreed to acquire Cinergy Corp. for $9 billion. When the transaction is completed, Duke will become one of the nation's largest electric utilities.

Contact Information	
CEO / Chairman	Paul M. Anderson
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Address	526 S Church St Charlotte, NC 28202-1802 USA

Board Oversight	***Score: 5***
Board Committee	None identified.
Actions Taken	The board receives periodic briefings on developments related to climate change.

Management Execution	***Score: 10***
CEO Statement	*From 2004 EHS Report:* "One of our top objectives in 2005 is to build stakeholder relationships and future shareholder value through effective leadership on key policy issues. I have become personally engaged in one such issue—global climate change. "In the past, Duke Energy has supported voluntary efforts to reduce [GHG] emissions. In 2005, we decided it was time to take a more proactive leadership role and promote a federal, economy wide U.S. policy. "We believe the best approach is a carbon tax, which would address [GHG] emissions from all sectors of the economy. A carbon tax would provide conservation incentives for everyone. It would promote higher utilization of power plants that are low emitters of carbon, and encourage low-carbon fuel choices for the future. It would also foster the development of new technologies."
Chief Environmental Officer	Richard Osborne, Group Vice President, Head, Public and Regulatory Policy Dept.
Levels to CEO	0
Climate Change Executives	Richard Osborne
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Duke Energy Corp.

NYSE : ***DUK***
Industry: ***Electric utilities***

Public Disclosure — ***Score: 8***

Company Statement — *From company website:*

"Concern that [GHGs] from human activities may be influencing changes in the earth's climate system has resulted in a variety of local, state and regional responses, as well as increased policy debate at the national level. Duke Energy shares this concern but believes that a mandatory, Federal, economy-wide policy response—for example, a carbon tax—is preferable to this patchwork, as it would be less costly to society and more effective in managing [GHG] emissions. A national approach would also be easier to integrate into a comprehensive global response, which the U.S. and other countries should continue to pursue.

"An appropriate policy on climate change should:

- Reduce GHG emissions gradually over a long time horizon, beginning the effort in the near term;
- Be economically efficient, sending price signals for lowering carbon intensity through energy conservation, fuel selection, technological innovation and new capital investment;
- Have a broad scope, applying to all sectors of the economy and to multiple greenhouse gases;
- Align with other energy policy objectives and recognize the value of a diverse energy supply; and
- Provide benefits independent of reducing GHG emissions.

"Although either a carbon tax or a cap-and-trade approach can be designed in the U.S. to embody these principles, a carbon tax can have the advantages of providing price certainty, applying to all aspects of the economy, and being simple to implement. Under either policy approach, policymakers should carefully consider important design details such as level, timing, use of revenues and point of application.

"Some policy proposals have called for substantial emissions reductions on an accelerated timetable, or are targeted solely at the electric sector—these approaches would be unduly costly and disruptive to the economy. Therefore, it is important to our customers, investors and communities that Duke Energy be proactive in shaping climate change policy. We will take a leadership role, engaging in a broad-based dialogue with others to craft a national policy consistent with our principles."

Securities Filings Statement — *Excerpt from Form 10-K:*

"Of the countries where Duke Energy has assets, Canada is presently the only one that has a [GHG] reduction obligation under the Kyoto Protocol. That obligation is to reduce average [GHG] emissions to 6% below their 1990 level over the period 2008 to 2012. In anticipation of the Kyoto Protocol's entry into force, the Canadian government has been developing an implementation plan that includes, among other things, an emissions intensity-based [GHG] cap-and-trade program for large final emitters (LFE). If an LFE program is ultimately enacted, then all of Duke Energy's Canadian operations would likely be subject to the program beginning in 2008, with compliance options ranging from the purchase of CO_2 emission credits to actual emission reductions at the source, or a combination of strategies.

"…The likelihood of a federally mandated CO_2 emissions reduction program being enacted in the [U.S. in the] near future, or the specific requirements of any such regime, is highly uncertain. Some states are contemplating or have taken steps to manage [GHG] emissions, and while a number of U.S. states in the Northeast and far West are discussing the possibility of implementing regional programs in the future, the outcome of such discussions is very uncertain.

"Due to the uncertainty of the Canadian policy and the speculative nature of any U.S. federal and state policies, Duke Energy cannot estimate the potential effect of the Canadian [GHG] reduction policy currently under development, or the potential effect of U.S. {GHG] policy on future consolidated results of operations, cash flows or financial position. Duke Energy will continue to assess and respond to the potential implications of [GHG] regulation."

Company Report — *Environment, Health & Safety and Community Relations 2004 Report*

GRI Report — None.

Carbon Disclosure Project — Answered questionnaire, permitted disclosure.

Duke Energy Corp.

NYSE : ***DUK***
Industry: ***Electric utilities***

Emissions Accounting

Score: 13

Savings Calculated by Company

Amount: 135,000,000 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 1991–2003

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program. Duke says these savings have been achieved through increased nuclear generation, carbon sequestration, improved hydro generation efficiency, landfill methane capture, coal byproduct reuse and natural gas pipeline best management practices.

GHG Emissions Inventory

2004 Amount: 63,900,000 tonnes of CO_2 ***Region:*** Global
2002 Amount: 63,800,000 tonnes of CO_2 ***Region:*** Global

2004 Amount: 992 lbs/MWh ***Region:*** U.S. (intensity rate)
2002 Amount: 972 lbs/MWh ***Region:*** U.S. (intensity rate)

Inventory figures are for U.S. electric generating facilities only. Duke Energy reports that its 2003 intensity rate of 971 lbs/MWh was 28% below the U.S. industry average

Third Party Vertification

Duke reports that an independent third party audited a portion of Duke Energy Gas Transmission's 2000 Canadian GHG emission inventory. No other part of Duke Energy's GHG inventory has undergone a third party audit or verification.

Reporting Protocol

Procedure is consistent with recognized methodologies (e.g., GHG Protocol).

Strategic Planning

Score: 11

Emissions Targets

None identified.

Duke Energy does not believe that instituting a voluntary internal GHG emissions reduction program is in the best interest of its customers or investors.

GHG Emissions Trading

None identified.

Duke says it would consider emission trading opportunities as part of its Canadian strategy, if or when such a market is formed.

Green Power

Approximately 13% of Duke Energy's electric generating capacity is conventional hydro and another 5% is pumped storage hydro. Duke Power collaborated to develop a first of its kind voluntary state Green Power Program in North Carolina.

Energy Efficiency

Duke Energy does not have a stand-alone energy efficiency program. Instead, Duke business units evaluate and implement cost-effective energy efficiency projects as part of their normal operations. Duke Power also offers several energy-efficiency demand-side management programs to encourage increased energy efficiency in existing homes.

Commercial Business

Duke Energy is one of the nation's largest providers of nuclear power.

Edison International

NYSE : ***EIX***

Industry: ***Electric utilities***

Edison International adopted a corporate policy on global climate change in 1997; it acknowledges the potential for significant long-term climate impacts and strives to balance implementation costs against this risk. The company augmented this policy in 2004 with a call for comprehensive national programs to address global warming and reduce GHG emissions. Strategic elements of Edison International's program focus on: energy and resource use efficiency in electricity production and delivery; customer energy efficiency; electro-technologies, including electric transportation; economically based approaches; and renewable energy supply. The company has calculated GHG savings from its emissions-reducing programs, but has not set any future targets. Southern California Edison is the nation's leading purchaser of renewable energy. Edison International and BP announced plans in 2006 to build a $1 billion hydrogen-fueled power plant in southern California that would be first in the U.S. to produce hydrogen from petroleum coke. Most of the CO_2 would be captured and pumped underground to enhance oil recovery.

Summary Score: 51

Company Information

Edison International is the parent company of Southern California Edison (SCE), a California public utility corporation that comprises the largest portion of its assets and revenue; Edison Mission Energy, an independent power producer that also conducts price risk management and energy trading activities; and Edison Capital, which has investments in energy and infrastructure projects worldwide and in affordable housing projects in the United States. Edison International had sales of $10.2 billion in 2004.

Contact Information

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Board Oversight

Score: 4

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls. (See CEO statement below.)

Management Execution

Score: 10

CEO Statement	*In December 2004 press release:* "A deliberate and coordinated effort is needed to reduce [GHG] emissions across the entire energy sector…Neither [GHG] emissions nor electricity stop at state borders. We believe the broader view can lead to a new national policy on global warming."
Chief Environmental Officer	None identified at the corporate level.
Levels to CEO	1 (for staff at SCE and Mission Energy)
Climate Change Executive	Mike Hertel, Director of Corporate Environmental Policy, SCE. Hertel is engaged with California public policy groups in addressing climate change issues. He reports to SCE President John Fielder.
Executive Committee	Unnamed cross-company team This team focuses on significant environmental areas, including climate change.
Link to Executive Compensation	Executive compensation includes a link to environmental performance and environmental matters.

Edison International

NYSE : ***EIX***
Industry: ***Electric utilities***

Public Disclosure

Score: 8

Company Statement

From December 2004 policy statement:

"In long-term procurement reply comments made to California regulators in December 2004, Edison International said it was seeking reasonable policy initiatives that apply to all [GHG] emitting sectors of the economy and do not focus only on investor-owned utilities. Short term, Edison called for aggressive development of renewable energy and the implementation of energy conservation and energy-efficiency programs to reduce greenhouse gas emissions. Long term, Edison advocated a reasonable and balanced 'cap-and-trade' system for reducing [CO_2] emissions that could be adopted once new [CO_2] removal technology has been developed and becomes commercially available. Edison maintained that absent [this] technology, a cap-and-trade system merely forces a shift in the fuel mix for electricity generation to higher-priced resources, raising consumer rates."

These comments augmented a global climate change corporate policy statement adopted in 1997.

Securities Filings Statement

Excerpt from Form 10K:

"Within California, the CPUC is addressing climate change related issues in various regulatory proceedings. In a decision pertaining to SCE's 2004 long-term procurement plan the CPUC is requiring a 'carbon adder' of $8–$25/ton of [CO_2] to be used in the evaluation of fossil fuel generation bids for contracts of five years or longer. Additional information about SCE's long-term procurement plan appears in the MD&A under the heading 'SCE: Regulatory Matters—Generation and Power Procurement—Generation Procurement Proceedings,' and is incorporated herein by this reference. The CPUC is also addressing [GHG] emissions in other related proceedings. In addition, the CPUC held a Climate Change Policy En Banc meeting on February 23, 2005, at which the CPUC sought information on best practices to reduce [GHG] emissions for CPUC regulated companies.

"SCE will continue to monitor these developments relating to [GHG] emissions [including those mentioned in the Form 10-K regarding federal and international control efforts as well as U.S. lawsuits] so as to determine the impacts, if any, on SCE's operations. If and to the extent that SCE does become subject to limitations on [CO_2] from fossil fuel-fired electric generating plants, these requirements could have a significant financial impact on SCE's operations."

Company Report

None identified.

GRI Report

None identified.

Carbon Disclosure Project

Not queried.

Emissions Accounting

Score: 14

Savings Calculated by Company

Amount: 9,400,000 tons of CO_2 equivalent ***Scope:*** Project level
Time frame: 2003

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program. As a member of the EPA's SF6 Emission Reduction Partnership for Electric Power Systems, Edison International has reduced its SF6 emissions by 40% between 1999 and 2004.

GHG Emissions Inventory

2003 Amount: 24, 028,713 tonnes of CO_2 ***Region:*** U.S.

This inventory figure includes 14,127,002 tonnes of CO_2 from purchased power.

Third Party Verification

Yes, through the California Climate Action Registry.

Reporting Protocol

Appendix X (Power/Utility Certification Protocol) for the California Climate Action Registry.

Edison International

NYSE : ***EIX***
Industry: ***Electric utilities***

Strategic Planning	***Score: 15***
Emissions Targets	None identified.
GHG Emissions Trading	None identified. In its 2004 policy statement, the company said that, in the long term, a reasonable and balanced "cap and trade" system for reducing CO_2 emissions could be adopted once new CO_2 removal technology has been developed and becomes commercially available. The company stated that, absent this technology, a cap and trade system merely forces a shift in the fuel mix for electricity generation to higher-priced resources, raising consumer rates.
Green Power	SCE is the nation's leading purchaser of renewable energy. Almost 18% of its electricity to 4.6 million customers comes from wind, solar, biomass, geothermal and small hydro energy sources. SCE supports enactment of a renewable portfolio standard in federal legislation. SCE has maintained that California should require all load serving entities, including municipal owned utilities, to meet the same renewable portfolio standards as investor owned utilities. SCE has expressed significant concerns about the advisability and legality of certain other unilateral actions being considered by the state, commenting that they could result in higher prices to consumers, threaten reliability of the state's electric supply and not result in overall reductions in CO_2 emissions.
Energy Efficiency	About 50% of CO_2 emission reductions reported to the DOE's Climate Challenge Accord are attributable to customer energy efficiency improvements. In 2003, SCE's demand-side management programs resulted in electric generation savings of 7,670 GWh. SCE's energy-efficiency programs have received national recognition from the U.S. Department of Energy, the U.S. Environmental Protection Agency, the American Council for an Energy Efficient Economy and the Alliance to Save Energy.
Commercial Business: ***Hydrogen***	Edison International and BP announced plans in 2006 to build a $1 billion hydrogen-fueled power plant in southern California that would generate 500 MW of electricity and come on line by 2011. 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 and pumped underground to enhance oil recovery. The plant will require governmental financial incentives to be economically viable. A final investment decision is expected by 2008. SeeSee also Green Power and Energy Efficiency.

Entergy Corp.

NYSE : ***ETR***

Industry: ***Electric utilities***

Entergy was the first U.S. electric power company in 2001 to announce a formal program to stabilize power plant CO_2 emissions—seeking to hold them constant in 2000–2005. Both Entergy's CEO and Chairman have spoken publicly about the dangers of climate change, its potential physical impacts on Entergy's service territory (including vulnerability to hurricanes and sea level rise) and the need for immediate government action. Entergy's CEO supports the establishment of a mandatory GHG reporting and disclosure program. The company also is a participant in the Clean Air Policy Initiative, which supports modest federal limits on power plant CO_2 emissions. Entergy's rate of CO_2 emissions per kilowatt-hour of generation is among the lowest in the industry, given that almost 80% of its power comes from nuclear energy and natural gas.

Summary Score: 65

Company Information

Entergy Corp. is an integrated energy company engaged primarily in electric power production and retail electric distribution operations in Arkansas, Louisiana, Mississippi and Texas. Entergy owns and operates power plants with approximately 30,000 MW of electric generating capacity and is the second-largest nuclear power generator in the United States. It had sales of $10.1 billion in 2004.

Contact Information

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Board Oversight

Score: 4

Board Committee	Personnel Committee
Committee Chair	W. Frank Blount, Chairman and CEO, TTS Management Corp.
Actions Taken	None identified on climate change or GHG controls. (See Chairman's statement below.)

Management Execution

Score: 11

CEO Statement — *Chairman Luft in a speech before the Society of Environmental Journalists in September 2003:*

"On the subject of [GHG] emissions like carbon dioxide, we think very differently than most of our industry and much of our country, including the White House. In 1999, levels of CO_2 emissions were 10% residential, 20% industrial, 32% from transportation, and 38% from utilities. It didn't take Entergy long to connect the dots and see that changes needed to be made in our business practices to help quell this trend….

"Since our government has so obviously and utterly failed to address this problem, Entergy decided two and a half years ago not to wait any longer on Washington before starting to help forge a solution. We still thought [GHG] controls were inevitable—ultimately—but we also felt crucial time was being lost. Early action to limit emissions, we were convinced, could minimize the costs of climate change protection while also creating new economic and environmental benefits.

"Therefore, in May 2001—just about the time the Bush administration was refusing to endorse the Kyoto treaty—Entergy made a voluntary commitment to stabilize [CO_2] emissions from our power plants at year 2000 levels through 2005. And we signed up Environmental Defense, the national advocacy group, to monitor our progress and make sure we were keeping that commitment."

Chief Environmental Officer	Gary Serio, Vice President, Safety & Environment
Levels to CEO	2
Climate Change Executive	Jeff Williams, Manager, Corporate Environmental Initiatives Williams and two other company representatives also serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Safety & Environment Executive Forum
Link to Executive Compensation	In 2004, the CEO's salary was based in part on Entergy's demonstration of "outstanding leadership in environmental and social commitment."

Entergy Corp.

NYSE : ***ETR***
Industry: ***Electric utilities***

Public Disclosure

Score: 12

Company Statement

From 2005 response to Carbon Disclosure Project:

"Entergy believes that the risk of inaction or an inadequate global response to climate change poses potential long term risks to the economic viability of Entergy's franchise territory and to its asset base; both are located in an area that is uniquely vulnerable to flooding and hurricanes. Entergy says that its future revenues are dependant on a sustainable economic base, noting that many of the people in the areas it serves are living in poverty. Entergy believes the impacts from increased [GHG] concentrations in the atmosphere will raise sea levels, erode coastal lands, flood regions of the Mississippi delta, reduce crop production, increase storm damage, endanger water supply, increase disease and eliminate certain species of animals. Entergy maintains that the economic impacts of climate change on regions like the delta (states of Arkansas, Mississippi and Louisiana) will adversely impact those least able to bear the burden. It also believes that delay in responding to climate change will remove economically viable options for stabilizing CO_2 concentrations in the atmosphere that are currently available and will result in higher cost response actions when greenhouse gas stabilization policies are finally adopted."

Securities Filings Statement

Excerpt from Form 10-K:

"In anticipation of the potential imposition of CO_2 emission limits on the electric industry in the future, Entergy has initiated economic actions designed to reduce its exposure to potential new governmental requirements related to CO_2 emissions. These actions include establishment of a formal program to stabilize power plant CO_2 emissions at year 2000 levels through 2005 and support for national legislation that would increase planning certainty for electric utilities while addressing emissions in a responsible and flexible manner. By virtue of its proportionally large investment in low or non-emitting gas-fired and nuclear generation technologies, Entergy's overall CO_2 emission 'intensity,' or rate of CO_2 emitted per kilowatt-hour of electricity generated, is already among the lowest in the industry. Total CO_2 emissions representing the company's ownership share of power plants in the United States were approximately 53.24 million tons in 2000, 49.58 million tons in 2001, 44.20 million tons in 2002, 36.78 million tons in 2003, and 38.28 million tons in 2004."

Company Report

Cultivating Sustainable Growth: 2004 Environmental, Economic & Social Performance. Entergy also produces an annual Greenhouse Gas Reduction Commitment Report.

GRI Report

None identified.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 21

Savings Calculated by Company

Amount: 8,253,670 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 2002

These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program. Between 1998 and 2004, Entergy's CO_2 intensity rate (lbs. CO2/kWh) declined from 1.22 to 0.67, in large part because the rate of fossil fuels burned relative to total electricity produced declined by 50%. During the same period, total electric generation at Entergy grew 47%.

Between 2000 and 2004, Entergy committed $14.8 million for 61 internal projects that are expected to reduce its CO_2 emissions by 6.2 million tons by 2010; 2 million tons of which had been achieved as of year-end 2004. Internal projects include power plant performance improvements, replacement of sulfur hexafluoride (SF6) circuit breakers, as well as carbon sequestration at company-owned sites implemented through Entergy's Sustainable Forestry Plan. In addition, Entergy committed $5.3 million in Environmental Initiative Funds to complete 12 external offset projects to achieve 3.9 million tons of CO_2e offsets in 2000–2005. Initiatives include coal mine methane to energy, domestic and international GHG trades, energy efficiency projects, a solar energy installation and external carbon sequestration.

GHG Emissions Inventory

2004 Amount: 38,280,000 tons of CO_2 ***Region:*** U.S.
2000 Amount: 53,240,000 tons of CO_2 ***Region:*** U.S.
1990 Amount: 37,935,104 tons of CO_2 ***Region:*** U.S.

Third Party Vertification

Yes, through Environmental Defense and others, such as the Environmental Resource Trust (ERT) and Danish Energy Agency Registry

Reporting Protocol

GHG Protocol and others.

Entergy Corp.

NYSE : ***ETR***
Industry: ***Electric utilities***

Strategic Planning		***Score: 17***
Emissions Targets	***Baseline year:*** 2000 ***Target year:*** 2005 ***Region:*** U.S. ***Amount:*** Not to exceed 53,240,000 tons of CO_2 equivalent (no emissions increase) In 2001, Entergy was the first U.S. electric power company to announce a formal program to stabilize power plant CO_2 emissions. (Cumulative CO_2 emissions from 2001–2004 were 21% below the stabilization target set for 2005.) Entergy planned to announce a post-2005 target in 2005. Entergy is a member of EPA's Climate Leaders program and Environmental Defense's Partners for Climate Action.	
GHG Emissions Trading	***Voluntary programs***—Entergy is a strong proponent of carbon emission reduction credits (ERCs) that can be traded in an efficient, liquid market. Entergy has purchased more than 500,000 ERCs generated from landfill methane and coal mine methane recovery projects. These include an ERC purchase from Elsam in the Danish Trading system, an ERC purchase from Shell in the U.K. Trading system and numerous other bilateral contracts. Entergy plans to remove 10,000 Danish allowances that it purchased from Elsam from the market, eliminating 10,000 tonnes of CO_2 emissions. Entergy also conducted an inter-company trade with DuPont of ERCs equivalent to 125,000 tonnes of CO_2 that DuPont achieved by reducing nitrous oxide emissions at a chemical plant near Orange, Texas. ***Government programs***—Not applicable.	
Green Power	Entergy owns 80 MW of wind power and in 2004 joined with Shell Wind in a joint venture to look for profitable opportunities to develop wind resources.	
Energy Efficiency	In 2004, Entergy took several steps to increase energy efficiency within its service territory and is working toward quantifying related GHG emission savings. Entergy held more than 200 energy conservation workshops and provided more than 2.2 million customers with information on energy-efficiency. It worked with community organizations to install energy efficiency measures and weatherization materials in the homes of disadvantaged families. It also partnered with EPA's Energy Star program to provide information and tools to its customers and provides tools on its web site to help customers evaluate the impact of energy efficiency measures in their homes or places of business.	
Commercial Business	Entergy is the nation's second-largest largest provider of nuclear power.	

Exelon Corp.

NYSE : ***EXC***

Industry: ***Electric utilities***

Exelon considers developing a sound policy to address global climate change one of the most formidable challenges it faces. In May 2005, Exelon pledged to reduce its total U.S. GHG emissions by 8% in 2001–2008. Exelon expects that more than half of these reductions will come from use of cleaner energy sources and one quarter will come from internal energy efficiency measures. Exelon believes that its commercial risk exposure to climate change is low relative to other U.S. electricity generators because of its major investments in nuclear power, hydro and landfill gas. Exelon is the largest U.S. generator of nuclear energy, which represented 88% of its owned generation in 2004. Exelon is a participant in the Clean Air Policy Initiative, which supports modest federal limits on power plant CO_2 emissions.

Summary Score: 63

Company Information

Exelon Corp. is one of the nation's largest electric utilities. It was formed from the 2000 merger of PECO Energy (PECO) and Unicom, the former parent company of Commonwealth Edison (ComEd). It distributes electricity to approximately 5.2 million customers in Illinois and Pennsylvania, and gas to 460,000 customers in the Philadelphia area. It had sales of $14.5 billion in 2004. Exelon is expected to merge with Public Service Enterprise Group in the first half of 2006 to form Exelon Electric and Gas.

Contact Information

CEO / Chairman	John W. Rowe
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Board Oversight

Score: 8

Board Committee	Both the Energy Delivery Oversight Committee and Generation Oversight Committee have oversight of environmental issues, including climate change.
Committee Chairs	Rosemarie B. Greco, Director of the Office of Health Care Reform, Commonwealth of Pennsylvania, is chair of the Energy Delivery Oversight Committee. Admiral Bruce DeMars, U.S. Navy (retired), is chair of the Generation Oversight Committee.
Actions Taken	Exelon says that authority to address environmental matters, including climate change, emanates from the board of directors to the office of the Chairman and CEO.

Management Execution

Score: 14

CEO Statement

From 2004 Environmental Progress Report:

"I believe that the science supporting global climate change is overwhelming. But I also believe that we must address the issue in the context of an energy policy that ensures that low-carbon energy alternatives, including natural gas, next-generation nuclear and renewables, are commercially available. We must be equally concerned about the economic impact of greenhouse gas (GHG) regulation."

Chairman Rowe served as co-chair of the National Commission on Energy Policy, which released a report in December 2004 calling for the U.S. to establish a mandatory, economy-wide tradable-permits program to limit GHG emissions, while capping costs through use of a safety valve. The report also calls for the U.S. to link further action on climate change to developed and developing nation commitments.

Chief Environmental Officer

John Rowe, Chairman and CEO

John Skolds, President, Exelon Energy Delivery and Exelon Generation, has responsibility to ensure that Exelon's environmental programs are implemented across the Business Units to ensure compliance with laws, regulations and commitments. Elizabeth Moler, Executive Vice President of Government and Environmental Affairs & Public Policy, has responsibility to develop corporate environmental policy and strategies.

Climate Change Executives

Elizabeth Moler and Yolando Pagano, Director of Climate Strategies and Programs. In addition, Pagono and Helen Howes, Vice President of Environmental, Health & Safety, serve as company representatives for the Pew Center on Global Climate Change's Business Environmental Leadership Council.

Exelon Corp.

NYSE : ***EXC***
Industry: ***Electric utilities***

Management Execution	*(continued)*
Executive Committee	Environmental Council Elizabeth Moler chairs this council.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 11***
Company Statement	*From 2005 response to Carbon Disclosure Project:* "Exelon believes the evidence of climate change is real and that the energy industry, though not alone, is a significant contributor to the human-caused emissions of greenhouse gases (GHG). Exelon has had emission reduction programs in place since the mid-1990s as a way to demonstrate that business—and the power generation sector specifically—can begin the transition to a carbon-constrained future today. As part of a GHG emission reduction goal set in May 2005, Exelon plans to incorporate recognition of GHG emissions and their potential cost into its business analyses as a means to promote internal investment in climate-reducing activities. "Exelon believes that its commercial risk exposure is low relative to other [U.S.] electricity generators because of its investment in zero- and low-GHG emitting nuclear, hydro and landfill gas. Exelon believes that nuclear power will play a pivotal role in a world increasingly concerned about global climate change and views its nuclear fleet as a great asset. Exelon believes that the significance of its low emissions profile can only grow as policy makers take action to address clean air and global climate issues."
Securities Filings Statement	*Excerpt from Form 10-K:* "In the absence of a mandatory national program, Exelon has joined the U.S. EPA Climate Leaders Partnership (Climate Leader). As a Climate Leader partner, Exelon is conducting an annual inventory of its GHG emissions, developing a GHG emission reduction goal, and annually reporting its GHG emissions and progress toward achieving GHG reductions. "As an integrated electric and gas utility, approximately 90% of Generation's GHG emissions result from the combustion of fossil fuels to generate electricity, with carbon dioxide (CO_2) representing the largest quantity of GHG emitted. The majority of Generation's owned generation is comprised of nuclear and hydroelectric assets that have negligible GHG emissions compared to fossil-based electric generation alternatives. By virtue of (Exelon) Generation's significant investment in these low carbon intensity assets, Generation's owned-generation portfolio CO_2 emission intensity, or rate of CO_2 emitted per kilowatt-hour of electricity generated, is among the lowest in the industry."
Company Report	*Realizing the Promise: 2004 Exelon Corporation Progress Report: Environment, Safety, Community*
GRI Report	None identified.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 15***
Savings Calculated by Company	***Amount:*** 58,031,000 tonnes of CO_2 ***Scope:*** Project level ***Time frame:*** 1995–2003 These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program. Exelon has avoided GHG emissions through increased investment in zero- and low-carbon intensity generation (i.e., nuclear and hydroelectric plant uprates and acquisition of energy from renewable projects) and through retirement of several older, less efficient fossil fuel plants. It has also invested in habitat restoration projects that sequester small amounts of carbon.
GHG Emissions Inventory	***2004 Amount:*** 13,200,000 tonnes of CO_2e ***Region:*** U.S. ***2001 Amount:*** 16,000,000 tonnes of CO_2e ***Region:*** U.S. Exelon estimates that its 2004 CO_2 emission rate of 185.7 lbs./MWh was 86.7% lower than the U.S. average of 1,392.0 lbs/MWh.
Third Party Verification	No, except for Continuous Emission Monitors.
Reporting Protocol	GHG Protocol

Exelon Corp.

NYSE : ***EXC***
Industry: ***Electric utilities***

Strategic Planning		***Score: 15***
Emissions Targets	***Baseline year:*** 2001 ***Target year:*** 2008 ***Region:*** U.S. ***Amount:*** Not to exceed 14,720,000 tonnes (8% decrease) Exelon established this target in May 2005 as its commitment under EPA's Climate Leaders program. Exelon expects that more than half of its reductions will come from use of cleaner energy, including wind, solar and landfill gas generation, and increased output from landfill gas and hydroelectric facilities. One quarter is expected to come from internal energy efficiency initiatives. In addition, Exelon is evaluating and deploying alternative fuel vehicles and alternative fuels. Exelon anticipates that a valuable, though much smaller, portion of expected reductions will be derived from carbon sequestration efforts.	
GHG Emissions Trading	None identified. Exelon has not yet procured emission reduction credits, but it foresees credits as being a necessary component of a successful GHG strategy.	
Green Power	Exelon is the largest wholesale wind marketer east of the Mississippi River. Exelon Generation has long-term power purchase agreements with four wind generation projects totaling 153 MW. Exelon Generation has two hydroelectric stations, including a pumped storage facility, that total 1,619 MW. Exelon Generation also owns and operates two landfill gas facilities. ComEd purchases landfill gas power from 22 sites across Illinois. Exelon says its decision to invest in these technologies in the future—including new builds—will only occur if economic and market conditions indicate favorable prospects for deriving enhanced shareholder value. In 2000, ComEd launched EcoPower(SM), which is a wholesale renewable energy certificate program developed under a marketing agreement with the Environmental Resources Trust. The EcoPower portfolio includes electricity generated from landfill gas and wind. Part of the premium from sales of EcoPower certificates goes to a reinvestment fund supporting renewable energy installations in Illinois. In 2004, PECO launched PECO WIND, supplied by leading wind energy provider, Community Energy, Inc.; it has attracted over 18,000 customers purchasing more than 55 million kWh of wind power annually. In April 2005, PECO made a three-year commitment to purchase PECO WIND for 10% of the energy needs for its headquarters in Philadelphia.	
Energy Efficiency	Exelon has a goal to reduce electricity consumption in its Energy Delivery business by 3% annually through 2007. Exelon Generation has achieved energy savings and is currently developing energy efficiency goals. Exelon's Smart Returns program offers ComEd and PECO customers load response options with financial incentives to curtail energy use. Under these programs, contracts totaling 1,400 MW of curtailable load have been signed. Exelon conducts energy efficiency reviews and audits at commercial and industrial facilities in Chicago.	
Commercial Business	Exelon is the nation's largest producer of nuclear power.	

FirstEnergy Corp.

NYSE : ***FE***

Industry: ***Electric utilities***

FirstEnergy released a detailed "Air Issues Report" for shareholders in December 2005 that describes the company's approach to managing climate change and other environmental issues. The company believes that policies to address climate change should encourage the development of high-efficiency, low-emitting and renewable energy sources. In addition to diversifying its generation and fuel mix, FirstEnergy says it is reducing GHG emissions by pursuing nuclear uprates, replacing equipment and making efficiency improvements for steam turbines, increasing use of renewable energy sources, working on next generation clean-coal technologies, participating in terrestrial and geologic sequestration and forest management projects, enhancing maintenance procedures for SF6 reduction and working on demand-side management.

Summary Score: 50

Company Information	
	FirstEnergy's subsidiaries and affiliates are involved in the generation, transmission and distribution of electricity, marketing of natural gas and energy management and other energy-related services. Its seven electric utility operating companies, including Jersey Central Power & Light (JCP&L), comprise one of the nation's largest investor-owned electric systems, serving 4.5 million customers in Ohio, Pennsylvania and New Jersey. It had sales of $12.5 billion in 2004.
Contact Information	
CEO / Chairman	Anthony J. Alexander / George M. Smart
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Board Oversight	***Score: 7***
Board Committee	Audit Committee
Committee Chair	George M. Smart, former Chairman, Sonoco-Phoenix (retired 2003)
Actions Taken	In response to a shareholder request, the board of directors produced a report in December 2005 on how future GHG limits could affect the company's operating results and competitive positioning. The report states, "Believing that federal and/or state GHG emissions standards are likely, we have planned—and taken appropriate strategic action—accordingly." FirstEnergy indicated to IRRC in 2003 that the board had conducted a previous evaluation of climate change and related policies.
Management Execution	***Score: 8***
CEO Statement	*From company website:* "...Our nuclear plants also play a key role in our efforts to limit overall emissions. Because they produce some 40% of the electricity we generate, we effectively avoid, on average, approximately 166,000 tons of SO2, 62,000 tons of NOx and 25 million tons of CO_2 each year that otherwise would have been emitted if we did not have these non-emitting sources of generation...."
Chief Environmental Officer	Daniel Steen, Director- Environmental
Levels to CEO	2
Climate Change Executive	Steen, above.
Executive Committee	Environmental Steering Committee This committee comprises senior corporate officers and oversees the company's handling of climate change issues. Richard Grigg, Chief Operating Officer, chairs this committee.
Link to Executive Compensation	Environmental performance is a factor in the compensation of senior executives.

FirstEnergy Corp.

NYSE : ***FE***
Industry: ***Electric utilities***

Public Disclosure

Score: 9

Company Statement

From company website:

"At FirstEnergy, we are committed to producing electricity in an environmentally responsible manner. We've already made voluntary reductions of carbon dioxide (CO_2) and other greenhouse gases through diversifying our generation and fuel mixes, and increasing our reliance on renewable energy sources.

"…In addition, we'll continue to monitor and report emissions under the Energy Policy Act Section 1605(B) voluntary reporting guidelines and look for new ways to reduce greenhouse gas emissions. While no cost-effective control technology currently exists to capture CO2 emissions, the largest contributor of greenhouse gases, we're participating in several government and industry partnerships, collaborations, and initiatives designed to identify and develop the next generation of clean-coal technologies. We believe that global climate change policy also should encourage the development of high-efficiency, low-emitting, and renewable energy sources."

Securities Filings Statement

Excerpt from Form 10-K:

"The Companies cannot currently estimate the financial impact of climate change policies, although the potential restrictions on CO_2 emissions could require significant capital and other expenditures. However, the CO_2 emissions per kilowatt-hour of electricity generated by the Companies is lower than many regional competitors due to the Companies' diversified generation sources which include low or non-CO_2 emitting gas-fired and nuclear generators."

Company Report

Before issuing its "Air Issues Report" in December 2005, FirstEnergy produced a short environmental brochure in 2003, which appears on its website.

GRI Report

None identified.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 17

Savings Calculated by Company

Amount: 11,704,928 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 2002

These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program. First Energy has reduced emissions of sulfur hexafluoride (SF6) by 8 tons, or 25%, since 1998, through equipment replacement and enhanced maintenance procedures. This reduction is equivalent to reducing CO_2 emissions by 180,000 tons. (FirstEnergy emitted 62,375 lbs. of SF6 in 1998.)

Since 1970, FirstEnergy has retired some 1,900 MW of older, coal-fired generation, and replaced it with newer, natural-gas-fired capacity. It also has undertaken 100 MW of nuclear uprates, is planning additional uprates and is applying to renew the licenses of all four of its nuclear units.

GHG Emissions Inventory

2003 Amount: 49,362,313 tons of CO_2 ***Region:*** U.S.
1990 Amount: 56,445,000 tons of CO_2 ***Region:*** U.S.

FirstEnergy emitted 819,327 tons of CO_2 equivalent of other greenhouse gases, including SF6 and CH4, in 2003.

Third Party Verification

No, except for Continuous Emission Monitors.

Reporting Protocol

GHG Protocol.

FirstEnergy Corp.

NYSE : ***FE***
Industry: ***Electric utilities***

Strategic Planning	***Score: 9***
Emissions Targets	None identified on CO_2. FirstEnergy is a member of the U.S. EPA's SF6 Reduction Partnership for Electric Power Systems, whereby it has pledged to reduce its SF6 emissions by 5% a year. In addition, FirstEnergy supports the Business Roundtable's Climate VISION program and the Edison Electric Institute's voluntary commitment to reduce sector-wide GHG emission intensity rates 3–5% below 2000–2002 levels by 2010–2012.
GHG Emissions Trading	None identified.
Green Power	About 5% of FirstEnergy's generating capacity (654 megawatts) comes from pumped-storage hydroelectric facilities. FirstEnergy has signed long-term agreements to purchase the output of nearly 30 MW of wind power from wind farms in its service area. In addition, it plans to enter into long-term contracts for at least 210 MW of additional wind power. FirstEnergy also purchases 58 MW of non-utility generation including landfill gas, solid waste, waste coal and small hydro. FirstEnergy also has a commitment to provide $17 million to support sustainable energy projects in Pennsylvania.
Energy Efficiency	Since 2001, rebates, discounts and delivery of energy-efficient products and services for JCP&L customers in New Jersey have produced an estimated annual energy savings of more than 208,000 megawatt-hours and avoided annual emissions of more than 103,000 tonnes of CO_2.
Commercial Business	FirstEnergy Technologies also is working with customers to identify cost-effective applications for low-emitting electro-technologies, such as microturbines and other distributed generation.

FPL Group Inc.

NYSE : ***FPL***
Industry: ***Electric utilities***

FPL Group has pledged to reduce the GHG intensity of its U.S. emissions by 18% in 2001–2008. FPL is among the lowest GHG emitters in the electric power sector, with natural gas representing nearly 60% of its generating capacity, and wind, 24%. FPL Group is the largest U.S. generator of wind power. FPL plans to develop additional nuclear, hydro and solar resources and has invested in efficient low-emitting combustion turbine technology. If the federal government were to propose mandatory CO_2 controls, FPL says it would support a market-based trading program, credit for early action reductions and reform of existing regulations that include CO_2 in a multi-pollutant bill. FPL is a participant in the Clean Air Policy Initiative, which supports modest federal limits on power plant CO_2 emissions.

Summary Score: 50

Company Information

FPL Group is a public utility holding company whose principal subsidiary, FPL, is a rate-regulated utility engaged in the generation, transmission, distribution and sale of electric energy in Florida. FPL Energy, LLC, its wholesale generating subsidiary, is a leading producer of wind power and other renewable fuels. FPL Group had sales of $10.5 billion in 2004. In December 2005, FPL Group and Constellation Energy announced a merger that will create the nation's largest competitive energy supplier and the nation's second-largest electric utility. The new company will be named Constellation Energy.

Contact Information

CEO / Chairman	Lewis Hay III
Contact	Tel: 561-691-7001 • Web: www.fplgroup.com
Address	700 Universe Blvd Juno Beach, FL 33408-2657 USA

Board Oversight

Score: 3

Board Committee	None identified.
Actions Taken	Management presents and reviews periodically FPL Group's environmental strategies with the board of directors, including its position and management of the climate change issue.

Management Execution

Score: 11

CEO Statement — *From 2004 annual report:*

"In November [2004], as a key element of our participation in EPA's Climate Leaders program, we committed to reducing our [GHG] emissions [intensity] rate by 18% [in 2003–2008] compared to a 2001 baseline. These actions will position us well in the event that more stringent air emissions legislation becomes law… We also scored the highest ranking in the U.S. and second globally in a World Wildlife Fund report that analyzed 72 of the world's leading power companies on current use of available technologies to reduce [CO_2] emissions, as well as clear commitments made for future improvements."

" Hay also addressed the Deutsche Bank Securities Inc. Electric Power Conference in June 2005. He said: "For those of you who don't know me real well, I'm very bullish on nuclear. I think the industry has a long track record of operating the plants safely, reliably, economically. There's zero emissions from nuclear power plants, so I'm not sure of the science underlying global warming at this point, but I think it's a good bet. If we could, as a nation, build more nuclear power plants, not only are we taking the safe route when it comes to global warming, just from a balance of trade standpoint, a lot of positive from nuclear."

Chief Environmental Officer	Randy LaBauve, Vice President, Environmental Services
Levels to CEO	2
Climate Change Executive	Randy LaBauve
Executive Committee	None identified. Five executives, including the CEO, routinely meet with the chief environmental officer on climate change and other environmental issues.
Link to Executive Compensation	Performance measures used to determine CEO pay in 2004 included the number of significant environmental violations, load management installed capability and conservation programs' annual installed capacity.

FPL Group Inc.

NYSE : ***FPL***
Industry: ***Electric utilities***

Public Disclosure

Score: 9

Company Statement

From 2005 response to Carbon Disclosure Project:

"FPL Group believes that companies who do not plan for future mandatory GHG regulation could see significant financial exposure while corporations who do effectively plan will likely realize greater financial stability and a more positive public opinion of the company.

"FPL has committed through the World Wildlife Fund's Power Switch Program to support mandatory limits on CO_2 emissions from the electric power sector if these limits are implemented in accordance with its corporate strategies and policies. FPL believes that pending multi-pollutant emissions reduction proposals can bring certainty to the long term economic viability of power plants only if the question of CO_2 emission reductions is included in these programs. FPL supports an open market trading system, where CO_2 allowances are allocated utilizing a fuel neutral, output-based generation performance standard.

"In the event that a mandatory CO_2 legislative proposal is likely in the U.S., FPL Group will support a market-based allowance trading program, allowance allocations to non-emitting generation, credit for early action reductions and reform of existing regulations. If allocation allowances are based on an output based system, FPL Group could support the inclusion of a CO_2 reduction requirement in a multi-pollutant bill in order to promote economic certainty for the operation of power plants."

Securities Filings Statement

Excerpt from Form 10-K:

"As a participant in [the Climate Leaders program], FPL Group has inventoried its greenhouse gas emission rates and has committed to a 2008 reduction target of 18% below a 2001 baseline emission rate measured in pounds per megawatt-hour. FPL Group believes that the planned operation of its generating portfolio, along with its current efficiency initiatives, greenhouse gas management efforts and increased use of renewable energy, will allow it to achieve this target.

"In addition to the voluntary initiative, the U.S. Congress is considering several legislative proposals that would establish new mandatory regulatory requirements and reduction targets for greenhouse gases. Based on the most current reference data available from government sources, FPL Group is among the lowest emitters of greenhouse gases measured by its rate of emissions to generation in pounds per megawatt-hour. However, these legislative proposals have differing methods of implementation and the impact on FPL Group's generating units and/or the financial impact (either positive or negative) to FPL Group and FPL could be material, depending on the eventual structure of a mandatory program."

Company Report

Building for a Sustainable Future Environmental Report (undated)

GRI Report

None identified.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 17

Savings Calculated by Company

Amount: 23,194,311 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 2002

These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program. The company estimates that its demand-side management programs saved nearly 3.9 million tonnes of CO_2 emissions in 2003.

GHG Emissions Inventory

2003 Amount: 73,137,485 tons of CO_2 ***Region:*** U.S.

This inventory total includes direct emissions and purchased power. FPL Group reports that its CO_2 intensity rate was 858 lbs./MWh in 2003.

Third Party Vertification

No, except for Continuous Emission Monitors.

FPL Group has shared data with several entities, including the World Wildlife Fund, EPA Climate Leaders and the U.S. Department of Energy.

Reporting Protocol

GHG Protocol

FPL Group Inc.

NYSE : ***FPL***
Industry: ***Electric utilities***

Strategic Planning		***Score: 9***
Emissions Targets	***Baseline year:*** 2001 ***Target year:*** 2008 ***Region:*** U.S. (intensity rate) ***Amount:*** 18% decrease per kWh FPL Group set this target under its commitment to the U.S. EPA's Climate Leaders program. FPL Group plans to achieve the reduction through a variety of efforts, including: continuing to evaluate fuel switching and efficiency improvement opportunities at its fossil-fuel plants; improving the operating efficiency of its Seabrook nuclear power plant and increasing its output by about 9%; building or buying power from natural gas-fired generation to offset older, less efficient facilities; increasing participation of FPL customers in energy management and conservation programs; continuing expansion of FPL Energy's wind energy portfolio; and introducing a green power program for its customers. FPL Group is a member of EPA's Sulfur Hexafluoride (SF6) Emissions Reduction Partnership for Electric Power Systems. It established an SF6 emissions reduction goal in October 2000 to maintain a 6% leak rate as calculated, or a not to exceed value of 8,559 pounds of emissions annually, until 2005, at which time the goal would be re-evaluated. In 2003, its leak rate was 2.3%
GHG Emissions Trading	None identified. FPL supports an open market trading system, where CO_2 allowances are allocated utilizing a fuel neutral, output-based generation performance standard. FPL says it is not participating in voluntary trading markets, such as the Chicago Climate Exchange, because it believes these markets are not yet representative of what a regulatory driven greenhouse gas market program would be like.
Green Power	FPL Energy is the nation's largest developer, builder and owner of wind generation facilities. It has more than 2,700 megawatts of wind in service and is constructing additional wind facilities. FPL also owns the two of the largest solar fields in the world. It operates 29 hydropower facilities in Maine and New Hampshire, representing 3% of FPL's net MW in 2004. In 2004, FPL introduced a "green power" program called Sunshine Energy. FPL has committed to providing 150 kilowatts of solar capacity in Florida for every 10,000 customers who voluntarily enroll in this green energy program. FPL Group says it continues to explore innovative new retail programs using environmentally friendly sources such as solar, biomass, landfill gases, wind and hydroelectric power.
Energy Efficiency	By 2008, all of FPL's demand side management (DSM) and energy conservation programs are expected to reduce peak demand by 2,800 MW. Over the past two decades, more than 1.7 million customers have participated in FPL's energy management and conservation programs, reducing electricity demand by more than 4,300 MW. Programs include: a Web-based home energy survey; encouraging customers—often via rebates—to adopt high efficiency measures; and its voluntary "On-Call" program where customers elect to have FPL briefly interrupt some of their electric appliances for short periods during times of high electricity demand, in exchange for credits on their bill.
Commercial Business	The combination of FPL Group and Constellation Energy will create the nation's third largest producer of nuclear power. See also Green Power and Energy Efficiency.

PG&E Corp.

NYSE : ***PCG***
Industry: ***Electric utilities***

PG&E says that while climate change could pose significant risks to its business, it can also serve as a "driver for finding new and better ways to generate, procure, and deliver electricity and gas to our customers." Its main operating subsidiary reports that it has among the lowest CO_2 emission intensity rates of any large U.S. investor-owned utility, and it expects this rate to remain low through 2014. About half of the electricity used to serve its customers in 2004 came from non-emitting resources. All but 5% of Pacific Gas and Electric's owned generation came from hydro or nuclear power in 2004. PG&E says it is increasing its investments in energy efficiency and increasing the proportion of renewable generation in its purchased power portfolio. Under state law, it is also applying a "carbon adder" when weighing competitive bids for electricity supply. PG&E is a participant in the Clean Air Policy Initiative, which supports modest federal limits on power plant CO_2 emissions.

Summary Score: 54

Company Information	
	PG&E Corp. is an energy-based holding company. It conducts its business principally through Pacific Gas and Electric Company, a public utility operating in northern and central California that engages primarily in the businesses of electricity and natural gas distribution, electricity generation, procurement and transmission, and natural gas procurement, transportation and storage. It had sales of $11.1 billion in 2004.
Contact Information	
CEO / Chairman	Peter A. Darbee / Robert D. Glynn Jr.
Contact	Tel: 415-267-7000 • Web: www.pgecorp.com
Address	1 Market Spear Tower Ste 2400 San Francisco, CA 94105-1814 USA
Board Oversight	***Score: 6***
Board Committee	Public Policy Committee
Committee chair	Mary Metz, former President, H. Cowell Foundation (retired in 2005)
Actions Taken	The chair of the Public Policy Committee provides a report to the full board on developments concerning the company's climate change policy and efforts to pursue cost–effective GHG mitigation measures. The company's chief environmental officer reports to the Public Policy Committee.
Management Execution	***Score: 12***
CEO Statement	*From 2005 Corporate Responsibility Report:* "Last year, among other successes, we continued our leadership on environmental issues. We became California's first investor-owned utility to complete a third-party-certified inventory of its carbon dioxide emissions, under the auspices of the California Climate Action Registry."
Chief Environmental Officer	Steve Kline, Vice President, Federal Governmental and Regulatory Relations
Levels to CEO	0
Climate Change Executive	Climate Protection Manager, Pacific Gas and Electric Co. PG&E also has three company representatives that serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Environmental Advisory Committee (EAC) This committee is kept apprised of climate-related activities. It is chaired by the Chief Operating Officer of the Pacific Gas and Electric Co., and consists of the Vice President of Environmental Affairs and other senior officers from across the company. The charter of the EAC includes the authority to assess the company's compliance activities with respect to current and future environmental regulations, to evaluate existing environmental initiatives and establish new ones.
Link to Executive Compensation	Environmental performance is a factor in the compensation of all employees, including senior executives.

PG&E Corp.

NYSE : ***PCG***
Industry: ***Electric utilities***

Public Disclosure

Score: 9

Company Statement

From 2005 response to Carbon Disclosure Project:

"PG&E recognizes that climate change impacts can disrupt existing weather patterns and have a significant impact on the physical environment. Any significant physical impacts, in turn, could affect the operating environment of an electric and natural gas utility and the economic viability of the service areas within which such businesses operate. Climate change is thus an important environmental and economic issue that poses significant risks and challenges for the electric and natural gas utility industry.

"While regulation of [GHG] emissions and climate change mitigation activities can pose business risks and challenges, PG&E also believes that they provide for opportunities to identify and invest in innovative technologies and processes that both save money and create jobs. In fact, PG&E has taken many actions to date that take this sort of proactive approach to minimizing the commercial risks associated with climate change, while at the same time promoting technologies and processes that position PG&E for a carbon-constrained future.

"PG&E has been supportive of the Clean Air Planning Act, introduced in the 108th Congress, which takes a market-based approach to reducing air pollutants and greenhouse emissions from the U.S. power generation sector."

Securities Filings Statement

Excerpt from Form 10-K:

"On December 16, 2004, the CPUC issued a final decision which approved, with certain modifications, each California investor-owned electric utility's long-term electricity procurement plan, or LTPP, ... for the ten-year period 2005–2014… To meet the utilities' resource requirements, the utilities are required to solicit bids from providers of all potential sources of new generation... In evaluating bids, the IOUs are required to: ...employ a 'greenhouse gas adder' to evaluate fossil-fuel generation bids as a method to recognize the cost of greenhouse gas emissions to develop a more accurate price comparison between fossil-fuel, renewable and demand-side bids (the greenhouse gas adder would be used for analytical purposes only and would not be paid to a generator).

"...In addition, current federal and state regulatory initiatives could increase the Utility's compliance costs and capital expenditures primarily with respect to the Utility's gas transportation facilities, fleet and fuel storage tanks, to comply with laws relating to emissions of carbon dioxide and other greenhouse gases, particulates and other toxic pollutants. If enacted, these laws could require the Utility to replace equipment, install additional pollution controls, purchase various emission allowances, or curtail operations. Although associated costs and capital expenditures could be material, the Utility expects that it would be able to recover these costs and capital expenditures in rates."

Company Report

2nd Annual Corporate Responsibility Report (2004)

GRI Report

None identified.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 17

Savings Calculated by Company

Amount: 8,426,888 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 2002

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program. As a Charter Member of the EPA's Voluntary Sulfur Hexafluoride (SF6) Emission Reduction Partnership, PG&E has reduced its SF6 leak rate by more than 50% and its absolute emissions of SF6 by approximately 40% since 1998.

GHG Emissions Inventory

2004 Amount: 782,588 tons of CO_2e ***Region:*** U.S.
2002 Amount: 770,761 tons of CO_2e ***Region:*** U.S.

2004 Amount: 47.99 lbs/MWh ***Region:*** U.S. (intensity rate)
2002 Amount: 47.47 lbs/MWh ***Region:*** U.S. (intensity rate)

Third Party Vertification

Yes. In 2004, PG&E registered its CO_2 emissions for 2002 and 2003 using the California Climate Action Registry's reporting standards and protocol.

Emissions Accounting	*(continued)*
Reporting Protocol	PG&E says it is working with this the California Climate Action Registry "to develop accurate and consistent protocols for reporting on efficiency metrics along with our inventories. One such metric will allow electric companies to present [GHG] emissions per megawatt-hour of delivered electricity. This will allow for easy comparison of a power company's climate impact, regardless of the company's size. It will also enable tracking of carbon intensity (e.g., emissions on a lbs/MWh basis) over time, complementing existing emissions reporting to paint a fuller picture of a company's environmental performance."
Strategic Planning	***Score: 10***
Emissions Targets	None identified. PG&E does not have a GHG emissions reduction or intensity target, but it has evaluated emissions intensity in its long-term procurement plans. It believes that its emissions intensity will remain relatively low (by industry standards) between now and 2014. PG&E does have a goal to reduce its SF6 leak rate by 70% in 1998–2007.
GHG Emissions Trading	None identified.
Green Power	PG&E's low-head hydro facilities represented nearly 2%, and its large-scale hydro facilities around 16%, of retail sales in 2004. Approximately 10% of the company's purchased power in 2004 was derived from wind, solar, hydroelectricity, biogas, geothermal and biomass. The company will be increasing its renewable portfolio (including purchased power and owned generation) by approximately 1% per year through at least 2010 in order to comply with California's Renewable Portfolio Standard requirement. PG&E also is encouraging customers to install onsite renewable generation. In 2004, PG&E increased the representation of natural gas vehicles in its fleet to 882, which represents about 8% of its fleet. PG&E also is partnering with solar industry leaders and the Foundation for Environmental Education to install photovoltaic systems at schools in its service area and with Habitat for Humanity to develop energy efficient homes with solar panels. PG&E's charitable contributions program takes into account GHG savings.
Energy Efficiency	PG&E plans to invest nearly $1 billion over the next three years in customer energy efficiency programs. In 2004, PG&E administered 14 statewide, four local, and nine partnership energy efficiency programs that avoided annual environmental impacts of 324,415 tons of CO_2. Also in 2004, it conducted studies to help support the adoption of new energy efficiency standards for electric appliances that it estimates will avoid 397,944 tons of CO_2 annually. One of the objectives of PG&E's charitable contributions program is to promote environmental stewardship in the communities it serves, and, more broadly through national and international partnerships and organizations. This includes efforts to improve the energy efficiency of homes, businesses, and institutions, increase the use of on-site renewable generation, and generate GHG savings. PG&E received a 2003 Energy Star Award recognizing the company for regional, state and community leadership in promoting energy efficiency. The company won separate recognition from the U.S. EPA and U.S. DOE as a 2003 Energy Star Partner of the Year for New Homes.
Commercial Business	See Green Power and Energy Efficiency.

Progress Energy Inc.

NYSE : ***PGN***

Industry: ***Electric utilities***

Progress Energy's Environmental, Health and Safety Performance Council, comprised of senior executives, is taking the lead in developing the company's response to climate change. The company's board of directors also is overseeing the preparation of a report on the financial impacts of potential mandatory constraints on CO_2 emissions, due out in March 2006. *(Editor's note: This profile does not reflect the anticipated information in that report, which is expected to improve its disclosure.)* At present, Progress Energy favors voluntary, market-based approaches to reduce, avoid, offset or sequester CO_2 emissions; it has not set any targets. It warns that imposition of mandatory targets before commercially viable technology is available to reduce CO_2 emissions from coal-fired power plants could have a material adverse impact on the company. To reduce the carbon intensity of its generation, the company says it is investigating new nuclear generation, nuclear uprates, promoting renewable power and increased promotion and use of coal combustion byproducts.

Summary Score: 36

Company Information	
	Progress Energy is a diversified energy company with more than 24,000 megawatts of generation capacity. It owns two electric utilities—Progress Energy Carolinas and Progress Energy Florida—serving approximately 3 million customers in North Carolina, South Carolina and Florida. Progress Energy also includes non-regulated operations covering competitive generation, energy marketing, natural gas production, fuel extraction and broadband capacity. It had sales of $9.8 billion in 2004.
Contact Information	
CEO / Chairman	Robert B. McGehee
Contact	Tel: 919-546-6111 • Web: www.progress-energy.com
Address	410 S Wilmington St Raleigh, NC 27601-1849 USA
Board Oversight	***Score: 7***
Board Committee	Operations, Environmental, Health & Safety Issues
Committee chair	Ed Borden, former President, Borden Manufacturing (retired)
Actions Taken	In response to a shareholder request, the Operations, Environmental, Health and Safety Issues Committee is overseeing preparation of a report that will discuss current and future environmental requirements, including an assessment of the financial impact of potential mandatory constraints on carbon dioxide emissions. The report is scheduled for completion by March 2006.
Management Execution	***Score: 9***
CEO Statement	*From an opinion piece published in the Orlando Sentinel in June 2005:* "…And third, there is bipartisan support for nuclear energy in Congress—and a growing recognition among environmental leaders of the role nuclear power can play in keeping our air clean and reducing emissions of greenhouse gases."
Chief Environmental Officer	Caroline Choi, Director, Environmental Services
Levels to CEO	3
Climate Change Executive	None identified.
Executive Committee	Environmental, Health and Safety Performance Council This council is comprised of senior executives from each of the major subsidiaries and business units. It evaluates performance goals, monitors key performance indicators, and reviews significant environmental issues. The council is taking the lead on developing the company's climate change position and has been kept apprised of the status of the upcoming climate change strategy report.
Link to Executive Compensation	Environmental performance is a factor in senior executive compensation.

Progress Energy Inc.

NYSE : ***PGN***
Industry: ***Electric utilities***

Public Disclosure		***Score: 6***
Company Statement	*From 2005 response to Carbon Disclosure Project:* "Progress Energy considers global climate change to be a serious issue. It cannot predict the implications for the company because no consistent public policies have been established. Progress Energy supports policies that would not impose targets before commercially available technology to reduce CO_2 from coal-fired power plants is developed."	
Securities Filings Statement	*Excerpt from Form 10-K:* "Progress Energy is subject to various federal, state and local environmental compliance laws and regulations which have and will result in increased capital expenditures and operations and maintenance costs. Additionally, Congress is considering legislation that would require additional reductions in air emissions of NOx, SO_2, carbon dioxide [CO_2] and mercury. Some of these proposals establish nationwide caps and emission rates over an extended period of time. This national multi-pollutant approach to air pollution control could involve significant capital costs that could be material to the Company's consolidated financial position or results of operations. "...A number of CO_2 emissions control proposals have been advanced in Congress. Reductions in CO_2 emissions to the levels specified by the Kyoto Protocol and some legislative proposals could be materially adverse to the Company's consolidated financial position or results of operations if associated costs of control or limitation cannot be recovered from customers. The Company favors the voluntary program approach recommended by the administration and continually evaluates options for the reduction, avoidance and sequestration of [GHGs]. However, the Company cannot predict the outcome of this matter."	
Company Report	*INNOVATE. INTEGRATE. INVEST. Pursuing Environmental Excellence* (2004)	
GRI Report	None identified.	
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.	

Emissions Accounting		***Score: 8***
Savings Calculated by Company	None identified.	
GHG Emissions Inventory	***2004 Amount:*** 60,101,000 tons of CO_2 ***2002 Amount:*** 55,780,000 tons of CO_2	***Region:*** U.S. ***Region:*** U.S.
Third Party Vertification	No, except through Continuous Emission Monitors.	
Reporting Protocol	None identified.	

Progress Energy Inc.

NYSE : ***PGN***
Industry: ***Electric utilities***

Strategic Planning	***Score: 6***
Emissions Targets	None identified. Progress Energy says it is committed to reducing its carbon intensity by taking voluntary actions to reduce, avoid, offset or sequester emissions. Progress Energy does not have a formal emissions reduction program, but initiatives to reduce its carbon intensity include investigating new nuclear generation, nuclear uprates, promoting renewable power through NC Greenpower, reforestation, increased promotion and use of coal combustion byproducts, investing in hydrogen-powered vehicles and a fueling station in Florida and partnering with various Florida groups to install solar and photovoltaic systems. Progress Energy reports that from 2002 to 2006, nuclear uprates will add 255 megawatts and that it has identified additional uprate opportunities.
GHG Emissions Trading	None identified. (See Commercial Business.)
Green Power	To date, Progress Energy has found most renewable resources to be cost-prohibitive. It offers its North Carolina customers the opportunity to participate in NC GreenPower. In 2004, 2.9% of Progress Energy Carolinas retail sales were generated from renewable resources (including purchased energy). This includes electricity produced by hydro, biomass, waste, and solar renewable sources in North Carolina. Progress Energy purchases power from a 40 MW plant in Florida that uses wood waste, tires and landfill gas. In North Carolina, the company purchases power from three plants totaling approximately 77 MW that use wood, biomass or methane. Progress Energy also purchases power from seven municipal solid waste plants in Florida and the Carolinas that supply 160 MW.
Energy Efficiency	Since their inception in 1979, demand side management programs have resulted in total demand reduction of: (1) In Florida, over 1,500 MW; and (2) In the Carolinas, over 600 MW. Additionally, Progress Energy has several residential and commercial programs for customers seeking to improve energy efficiency and offers a residential energy efficiency financing program.
Commercial Business	Progress Energy has a wholly owned technology—Carbon Burn-Out (CBO)—that can create CO_2 credits. The technology converts fly ash into a substitute for Portland cement, which is a key ingredient in concrete. The CBO Plant, the host utility and all downstream users provide significant CO_2 emission reductions. In addition, in December 2005 Progress Energy announced a commitment of $1 million to Microcell Corp., a Raleigh-based company working to bring commercially available fuel cell applications to industrial, commercial and consumer markets.

Sempra Energy

NYSE : ***SRE***

Industry: ***Electric utilities***

Sempra Energy believes that climate change is a global issue best addressed at the broadest possible level and with participation from all applicable market sectors. San Diego Gas & Electric Co. (SDG&E) compiled a GHG emissions inventory for 2004 that it expects to be certified in 2006. SDG&E is working toward the California Renewable Portfolio Standard goal of supplying 20% of customers' electricity needs with renewable energy by 2010. SDG&E also is investing in energy efficiency programs to curb electricity demand. Another Sempra subsidiary, Sempra Generation, has proposed to build approximately 2,000 megawatts of pulverized coal-fired power plants with an estimated investment of $2.5 billion, which would emit approximately 15 million tons of CO_2 per year. Sempra is a member company of the Clean Air Energy Group, which supports national legislation that would impose modest limitations on CO_2 emissions.

Summary Score: 24

Company Information	
	Sempra Energy is the parent company of various business units participating in energy markets. Its two California utilities—San Diego Gas & Electric Co. (SDG&E) and Southern California Gas Co. (SoCal Gas)—serve the largest customer base of any U.S. energy utility. Sempra Energy also provides a variety of services, including the marketing and trading of energy commodities, risk management and retail energy services across the energy-delivery chain, serving more than 29 million consumers in the U.S., Europe, Canada, Mexico, South America and Asia. It had sales of $9.4 billion in 2004.

Contact Information	
CEO / Chairman	Donald E. Felsinger
Contact	Tel: 619-696-2000 • Web: www.sempra.com
Address	101 Ash St San Diego, CA 92101-3017 USA

Board Oversight	***Score: 1***
Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution	***Score: 3***
CEO Statement	None identified.
Chief Environmental Officer	Bret Lane, Vice President—Environment, Safety & Facilities, SDG&E/SoCal Gas
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Sempra Energy

NYSE : ***SRE***
Industry: ***Electric utilities***

Public Disclosure

Score: 2

Company Statement

Comments by SDG&E in October 2005 regarding the California Energy Commission's Draft Integrated Energy Policy Report:

"[G]lobal climate change is, as the nomenclature clearly indicates, a worldwide issue that must be viewed from a macro level. Any attempts to assert mandatory and/or voluntary cost-effective GHG reduction programs must be achieved at a minimum from a regional level (e.g., western states). Additionally, most scientific and economic experts prefer a national program to maintain a balance between the benefits of GHG reductions and sustaining socio-economic progress. The Draft Report correctly notes that the development of new energy supplies and infrastructure is increasingly critical to meeting California's energy needs. As such, it is particularly important that as policies and programs addressing Global Climate Change are developed that the State does not create a disincentive to enter into long-term commitments or to construct new generation due to the specter of a long-term financial obligation addressing Global Climate Change. This conflict between the need for additional generation and the need to address Global Climate Change issues must be appropriately resolved if progress is to be made in both areas.

"Any GHG reduction program must include at a minimum multiple sectors of the California economy including mobile sources. It also must be done with or in concert with at least the western region states. An even broader program where California could take credit for actions taken elsewhere would certainly be more effective and efficient in addressing Global Climate Change."

Sempra Energy and its affiliates have commented on climate change in numerous regulatory proceedings in recent years.

Securities Filings Statement

Excerpt from Form 10-K:

"The scope and effect of any new environmental laws and regulations, including their affects on operations, are difficult to predict. However, increasing national and international concerns regarding global warming and proposed regulations regarding mercury, nitrogen oxide and sulfur dioxide emissions could result in requirements for additional pollution control equipment or significant emissions fees or taxes, particularly with respect to coal-fired generation facilities, that could adversely affect Sempra Generation. In addition, existing environmental regulations could be revised or reinterpreted and other new laws and regulations could be adopted or become applicable to the company and its facilities."

Company Report: None identified.

GRI Report: None identified.

Carbon Disclosure Project: Not queried.

Emissions Accounting

Score: 9

Savings Calculated by Company: None identified.

GHG Emissions Inventory

2004 Amount: 299,259 tonnes of CO_2e ***Region:*** U.S. (SoCalGas)

These emissions for SoCalGas reflect 290,032 tonnes of direct emissions and 9,227 tonnes of emissions from energy imports. SDG&E has also compiled a GHG emissions inventories for 2004 for submittal to the California Climate Action Registry. However, it is resolving one issue prior to certification, which should occur in the first quarter of 2006.

Separately, Sempra Generation has proposed to build approximately 2,000 MW of pulverized coal-fired power plants with an estimated investment of $2.5 billion, which would emit approximately 15 million tons of CO_2 per year.

Third Party Verification: Yes, through the California Climate Action Registry.

Reporting Protocol: Appendix X (Power/Utility Certification Protocol) for the California Climate Action Registry.

Sempra Energy

NYSE : ***SRE***
Industry: ***Electric utilities***

Strategic Planning	***Score: 9***
Emissions Targets	None identified. SDG&E's resource plan does not specifically target reductions in GHG emissions, but Sempra says the plan is "aligned with a goal of minimizing GHG emissions by relying first on reducing demand for energy, second on producing that energy without GHG emissions, and thirdly on the replacement or displacement of old, less efficient generation." Activities that will lead to emissions reductions include energy efficiency upgrades to company facilities, ongoing leak detection and repairs to pipelines, use of natural gas powered vehicles and use of specialized equipment to maintain electrical equipment containing sulfur hexafluoride gas. SDG&E also is increasing its commitment to renewables and supporting the development of new, highly efficient natural gas fired power plants for its service territory.
GHG Emissions Trading	None identified.
Green Power	SDG&E says it has been aggressively pursuing acquisition of renewable energy supplies since 2002. SDG&E is committed to reaching the California Renewable Portfolio Standard goal of 20% renewable energy supplies by 2010. It has contractually secured a total of 13.3% of its retail delivery needs from renewable resources. In fall 2005, SDG&E announced agreements to purchase 300 MW of solar power and 205.5 MW of wind power. Sempra Generation has built a solar-photovoltaics demonstration project at the site of its natural gas-fueled El Dorado Power site near Boulder City, Nev. Sempra says that a number of technologies, such as photovoltaics and fuel cells, show promise, but that they aren't yet practical for meeting the demands of the communities it serves.
Energy Efficiency	Sempra Energy's utility companies have been involved in energy conservation for nearly 30 years. The California Public Utility Commission's plan calls for SDG&E to administer approximately $258 million of energy efficiency funds from 2006–2010. Sempra and SDG&E have won a number of national awards for projects in energy efficiency, including a recent award for demand-side management achievements from the Natural Resources Defense Council. In March 2005, the U.S. Environmental Protection Agency recognized SDG&E and SoCal Gas with the Excellence in Energy Efficiency and Environmental Education 2005 Award for its contributions to reducing greenhouse gas emissions by promoting the construction of energy-efficient homes. Sempra Energy Solutions is an EPA Energy Star partner.
Commercial Business	See Green Power and Energy Efficiency.

Southern Company

NYSE : ***SO***

Industry: ***Electric utilities***

Southern Company's board of directors conducted a review of climate change in 2005 and produced a report to shareholders. The company views the potential impact of climate change as a concern, but it does not believe that economic technologies are yet available to reduce CO_2 emissions in its service area. It is projecting a 10–18% increase in its CO_2 emissions by 2020, relative to 2004 levels. In the near term, all of Southern's new generation will be fueled by natural gas. It is also focused on advanced coal technologies and developing alternative forms of energy, including advanced nuclear power plants.

Summary Score: 51

Company Information

Southern Company is one of the largest U.S. electricity producers, with nearly 39,000 megawatts of electric generating capacity in the Southeast. Southern Company owns five regulated retail electric utilities: Alabama Power, Georgia Power, Gulf Power, Mississippi Power and Savannah Electric. It also has a nuclear plant and operations subsidiary, Southern Nuclear, and a wireless communications and fiber optics business. It had sales of $11.9 billion in 2004.

Contact Information

CEO / Chairman	David M. Ratcliffe
Contact	Tel: 404-506-5000 • Web: www.southernco.com
Address	30 Ivan Allen Blvd., NW Atlanta, GA 30308 USA

Board Oversight

Score: 9

Board Committee	The full board oversees environmental issues.
Actions Taken	In response to a shareholder resolution, Southern Company's CEO and the board of directors oversaw production of a 2005 Environmental Assessment Report to Shareholders. The board and senior officers attended a two-day workshop to review the assessment. In 2004, Francis Blake, The Home Depot's Executive Vice President of Business Development and Corporate Operations, joined the board, bringing technical expertise on climate change. Previously, Blake served as deputy secretary for the U.S. Department of Energy and as general counsel for the U.S. Environmental Protection Agency.

Management Execution

Score: 7

CEO Statement	*From a speech addressing energy policies issue in June 2005:* Ratcliffe said that "the potential impact of climate change is a concern" and that Southern Company is "playing a leadership role in addressing the complex and controversial issue of climate change. We have been participating in the scientific, technical and policy parts of the issue for more than a decade." He said "Technology is the answer to address energy policy and energy demand" and that "We are finding ways to burn coal more cleanly, to advance the next generation of nuclear plants and to invest in the potential of renewable energy sources, like wind and biomass."
Chief Environmental Officer	Chris Hobson, Senior Vice President, Research and Environmental Affairs
Levels to CEO	1
Climate Change Executive	Chris Hobson
Executive Committee	Environmental Executive Committee This committee is responsible for establishing environmental policies, reviewing key environmental strategies and plans and evaluating the company's performance. It consists of members of the CEO's management council, along with other senior officers, and is chaired by Hobson, above. The committee meets periodically to review company strategy and positions, including on climate change.
Link to Executive Compensation	Environmental performance is a factor in top executives' compensation.

Southern Company

NYSE : ***SO***
Industry: ***Electric utilities***

Public Disclosure — ***Score: 8***

Company Statement — *From company website:*

"Southern Company is committed to protecting and improving the environment. The issue of potential changes to our climate system as the result of human activities deserves continued serious research, thoughtful action, and a reasoned policy response.

Our Policy Principles: Southern Company believes that any policy to address climate change, including those that limit greenhouse gas emissions, must:

- Recognize that the issue of climate change is both global and long-term in nature
- Seek to resolve remaining scientific uncertainties about the nature, scope, and pace of change to the climate system
- Protect a secure, economic, and diverse supply of energy for the United States
- Acknowledge and promote the important role of long-term technology {R&D] and dissemination
- Incorporate the unrestricted use of market-based flexibility mechanisms such as emissions trading and joint implementation
- Consider the broadest range of sources and sinks of [GHGs], both domestic and international.

"Our Commitments: Southern Company is committed to demonstrating its leadership on the climate change issue with actions that include:

- Playing a constructive, leadership role in developing innovative approaches to… climate change
- Pursuing and expanding cost-effective measures to reduce, avoid, or sequester [GHG] emissions
- Conducting and supporting development and commercialization of higher efficiency, lower emitting power generation technologies through public and private partnerships
- Advancing research to reduce remaining scientific uncertainties and to further understanding of appropriate responses to potential climate change
- Establishing and maintaining dialog with public and private interest groups to expand the understanding of the climate change issue and to enhance the development and implementation of appropriate climate change policy."

Securities Filings Statement — *Excerpt from Form 10-K:*

"Compliance with possible additional federal or state legislation or regulations related to global climate change or other environmental and health concerns could also significantly affect Southern Company…. The full impact of any such changes cannot, however, be determined at this time… Southern Company is leading the development of a voluntary electric utility sector climate change initiative in partnership with the government. The utility sector has pledged to reduce its [GHG] emissions rate by 3 to 5% over the next decade and, on December 13, 2004, signed a memorandum of understanding with the DOE initiating this program under Climate VISION. Because efforts under this voluntary program are just beginning, the impact of this program on the Company cannot be determined at this time."

The Form 10-K also makes reference to a lawsuit filed by attorneys general from eight states in July 2004, and a nearly identical complaint from three environmental groups, alleging that CO2 emissions from power plants owned by Southern Company and four other electric utilities are creating a public nuisance and should be subject to controls. This case has been dismissed by a judge in the Southern District of New York and has been appealed to the Second Circuit Court of Appeals.

Company Report — *Southern Company Environmental Assessment: Report to Shareholders,* May 2005.

GRI Report — Southern Company will be releasing a report in early 2006 that will contain environmental, social and economic information and will attempt to index the GRI topics in a table that are addressed in the report, but will not cover all GRI topics.

Carbon Disclosure Project — Answered questionnaire, permitted disclosure. (Also posted on website.)

Southern Company

NYSE : ***SO***
Industry: ***Electric utilities***

Emissions Accounting

Score: 17

Savings Calculated by Company

Amount: 21,268,000 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 2002

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program. Southern Company reports avoiding or offsetting more than 115 million tonnes of CO_2 since the mid-1990s through 2004 as a result of nuclear and hydro plant capacity increases; carbon sequestration through tree planting; efficiency projects; research into biomass;, fuel cells and zero-emissions technologies; and carbon capture and storage.

GHG Emissions Inventory

2004 Amount: 128,800,000 tonnes of CO_2 ***Region:*** U.S.
1990 Amount: 102,000,000 tonnes of CO_2 ***Region:*** U.S.

2004 Amount: 1,518 lbs. CO_2/MWh ***Region:*** U.S. (intensity rate)
1987 Amount: 1,683 lbs. CO_2/MWh ***Region:*** U.S. (intensity rate)

Third Party Vertification

No, except through Continuous Emission Monitors.

Reporting Protocol

Not identified.

Strategic Planning

Score: 10

Emissions Targets

None identified.

Southern Company expects its CO_2 emissions to grow from 144 million (short) tons in 2004 to 146–148 million tons in 2008, 148–155 million tons in 2012 and 159–170 million tons in 2020. Even with high price signals, Southern estimates its CO_2 emissions would decline only about 6% from projected 2020 levels.

Southern is considering a CO_2 intensity goal that would be in the range of a 3–5% reduction over a 10-year period ending in 2012, consistent with the electric utility industry's commitments under the Climate VISION program. It has already set a goal of reducing SF6 emissions by nearly 70% from its 1993 baseline by 2005; it met that goal in 2002.

GHG Emissions Trading

None identified.

Green Power

Southern Company has "green pricing" programs in Florida, Alabama and Mississippi and launched one in Georgia in 2005. The company's 2,714 MW of hydro facilities provided about 4% of its overall generation in 2004. Southern has invested $6 million over the last five years in renewable energy research, primarily biomass but also wind and solar. It is expanding research into gasifying biomass, such as switchgrass. It also has invested more than half a million dollars in a joint partnership with Georgia Tech to study the feasibility of installing wind turbines off the coast of Georgia. Southern says it is unlikely that additional renewables will provide more than a few hundred megawatts in the Southeast, barring some unforeseen technological advance. The only commercially available biomass-based options include landfill gas and co-firing biomass in existing power plants.

Energy Efficiency

Southern Company's demand-side management and energy efficiency programs have avoided the need for 3,000 MW of peaking capacity, which is equal to about 8% of its current generating capacity. Southern Company also participates in Energy Star programs, has a customer audit tool on its website (Energy Direct), and performs customer energy audits.

Commercial Business

The U.S. Department of Energy awarded Southern Company a $200 million contract to build an integrated gasification combined cycle (IGCC) plant, which produces 20-25% less CO_2 than a conventional coal-based plant. Southern Company is also supporting DOE's FutureGen effort to build a zero-emissions coal plant that combines IGCC technology with carbon capture and storage. Southern Company also is a founding member of the NuStart consortium to develop an advanced nuclear power plant in the United States.

TXU Corp.

NYSE : ***TXU***

Industry: ***Electric utilities***

TXU retained independent consultants in 2004 to write a white paper on prospective air emissions regulations, including those addressing climate change. The study, which underwent board review, concluded that shareholders would not benefit if TXU devoted major financial resources now to reduce CO_2 emissions in advance of uncertain emission regulations. The study also found that emissions-reducing options like biomass co-firing, additional wind power, additional gas-fired plants and reduced coal generation would raise electricity prices, at least in the short term, posing competitive and technical problems for the company. TXU reports that its voluntary CO_2 emissions reduction program is the second largest of any U.S. investor-owned electric utility, largely as a result of adding 2,850 megawatts of nuclear power and other zero-emission purchased power to its generating portfolio since 1990. In 1990–2004, TXU reduced its annual CO_2 emissions by 11%. The company's emissions are projected to grow 17% in 2004-2009, and then remain relatively stable through 2018, according to the white paper.

Summary Score: 51

Company Information

TXU manages a portfolio of competitive and regulated energy businesses. Its unregulated businesses include TXU Energy, which provides electricity and related services to more than 2.4 million customers in Texas; TXU Power, which has more than 18,300 MW of generation in Texas; and TXU Wholesale. TXU's regulated electric distribution and transmission business, TXU Electric Delivery, operates the largest distribution and transmission system in Texas. TXU had sales of $9.3 billion in 2004.

Contact Information

CEO / Chairman	C. John Wilder
Contact	Tel: 214-812-4600 • Web: www.txu.com
Address	1601 Bryan St Dallas, TX 75201-3411 USA

Board Oversight

Score: 7

Board Committee	None identified. TXU's full board is engaged in discussions and evaluations of environmental matters.
Actions Taken	In 2004, the board reviewed an independent study that evaluated TXU's processes for following and evaluating air emission and climate policies and regulations. In October 2005, the board addressed climate change risks and policies at its quarterly meeting, partly in response to a shareholder request. The discussion included a presentation by Peter Schwartz, Chairman of Global Business Network, USA, who is the author of three books on strategic scenario planning as it relates to the energy sector and has been engaged in climate change scenario planning for the U.S. Department of Defense.

Management Execution

Score: 6

CEO Statement	*From 2004 annual report:* "A critical part of operational excellence is environmental responsibility. According to the U.S. Environmental Protection Agency, America's air is the cleanest it has been in over 30 years. TXU is playing an important part in this progress by reducing air emissions and complying with all applicable environmental regulations. Since 1990, we have reduced emission rates of nitrogen oxides (NOx) by 64%, carbon dioxide by 11% and sulfur dioxide by 13%." "In January/February 2005, Chairman Wilder served on a panel at the annual World Economic Forum in Davos, Switzerland, entitled "Climate Change: How Will Business Meet the Challenge?"
Chief Environmental Officer	Shawn Glacken, Vice President of Environmental Policy, TXU Power
Levels to CEO	1
Climate Change Executive	Shawn Glacken participates in board discussions of climate change policy as well as other environmental policy matters.
Executive Committee	None identified.
Link to Executive Compensation	Environmental performance is a factor in senior executive compensation.

TXU Corp.

NYSE : ***TXU***
Industry: ***Electric utilities***

Public Disclosure

Score: 10

Company Statement

From 2005 response to Carbon Disclosure Project:

"Because the timing and magnitude of any future climate changes are uncertain, especially at the regional or local level, it is difficult at this time to articulate with confidence specific risks and opportunities. We do know, however, that certain regulatory approaches to reducing [GHG] emissions from electric generating facilities, especially in the short term, could present difficult and costly technical problems. The generation mix in Texas is approximately 69% natural gas, 23% coal and lignite, 6% nuclear and 2% wind, hydro and other renewables. Future regulatory constraints on carbon dioxide emissions from fossil fuel generation would make meeting the energy needs in the state extremely difficult."

Securities Filings Statement

Excerpt from Form 10-K:

"TXU Corp. continues to participate in a voluntary [GHG] emission reduction program and since 1995 has reported the results of its program annually to the U.S. Department of Energy. TXU Corp. is also participating in a new voluntary electric utility industry sector climate change initiative in partnership with the Department of Energy. In October 2004, TXU Corp. released an independent study by NERA Economic Consulting in collaboration with Marc Goldsmith & Associates. The study evaluated TXU Corp.'s processes for following and evaluating air emissions and climate policies and reviewed TXU Corp.'s actions regarding previous major air emissions policies and compliance. Additionally, the study considered the financial consequences and related risks to TXU Corp. of prospective air emissions and climate change policies, including an assessment of the financial effects of reducing emissions now in anticipation of future requirements. The study concluded that TXU Corp. has the appropriate processes and procedures in place and uses appropriate economic methodologies to evaluate financial consequences of environmental regulatory policy changes and scenarios. The study also concluded that absent certain specific circumstances, TXU Corp.'s shareholders would not benefit if the company devoted major financial resources now to reduce its carbon dioxide emissions in advance of uncertain future emission regulations. In addition, the study concluded that TXU Corp.'s efforts have consistently resulted in compliance with air emission limits.... TXU Corp. continues to assess the financial and operational risks posed by future regulatory or policy changes pertaining to [GHG] emissions and multiple emissions, but because these proposals are in the formative stages, TXU Corp. is unable to predict their future impacts on the financial condition and operations of TXU Corp."

Company Report

2004 Corporate Citizenship Report

GRI Report

None identified.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 18

Savings Calculated by Company

Amount: 262,667,038 tonnes of CO_2e ***Scope:*** Project level ***Time frame:*** 1991–2004

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program. TXU reports that its voluntary CO_2 emissions reduction program is the second largest for any U.S. investor-owned electric utility, and is the third largest reduction program in the country. Since 1990, TXU added 2,850 megawatts of zero-emission electric generation (primarily nuclear power) to its generation fleet, and purchased renewable energy that qualifies for emission credits. Power plant efficiency improvement projects, plus the increased blending of higher Btu coal with native Texas lignite, resulted in the avoidance of more than 2 million tonnes of CO_2 in 2003. Since 1999, TXU has prevented the release of more than 34,000 pounds of SF6, which accounts for approximately 10% of the EPA's Emission Reduction Partnership for Electric Power Systems' cumulative emission reductions of SF6. TXU is one of four companies participating in an EPA program that tracks and reports leak rates for certain circuit breakers.

GHG Emissions Inventory

2004 Amount: 50,041,659 tonnes of CO_2e ***Region:*** U.S.
1990 Amount: 61,805,895 tonnes of CO_2e ***Region:*** U.S.

The 2004 inventory figure is made up almost entirely of emissions from TXU's generation fleet (not including purchased power). Less than 1% reflects emissions from TXU's transportation fleet, CH4 and SF6 emissions. The 1990 figures represents CO_2 emissions from TXU's generation fleet only.

TXU Corp.

NYSE : ***TXU***
Industry: ***Electric utilities***

Emissions Accounting	*(continued)*
Third Party Vertification	No, except for Continuous Emissions Monitors.
Reporting Protocol	Methods used to calculate emissions are based on methods developed and published by the U.S. Department of Energy and the U.S. Environmental Protection Agency.

Strategic Planning	***Score: 10***
Emissions Targets	None identified. A 2004 TXU white paper made projections of CO_2 emissions through 2018. It showed that TXU's emissions peaked in 2000 at 73 million (short) tons of CO_2, fell to about 59 million tons in 2004 and are expected to rise to about 62 million tons by 2009. After that time, annual emissions are expected to remain relatively constant at 62 million tons through 2018. The white paper says its "estimates are based on generic assumptions and not necessarily applicable to TXU specifically."
GHG Emissions Trading	None identified. TXU participated in the design phase of the Chicago Climate Exchange, but decided not to participate in the program.
Green Power	TXU says it is a leading purchaser of wind-generated electricity in North America and expects to add new sources of wind generation. TXU is developing a "green pricing" option for its customers for 2006. Previous programs of this nature were unsuccessful. TXU purchases from renewable sources, including wind and landfill gas, represent about 2% of TXU's total energy resources and accounted for the avoidance of more than 1 million tons of CO_2 in 2004.
Energy Efficiency	In 2003, TXU Demand Side Management programs were responsible for avoiding emissions of 647,870 tons of CO_2. In response to the Texas Electric Choice Act, which calls for a reduction in statewide energy consumption through market-based standard offer programs and limited market transformation programs, TXU Electric Delivery is funding various energy efficiency programs at around $40 million annually.
Commercial Business	TXU is participating in several energy industry initiatives associated with integrated gasification combined cycle power plants and is studying geologic sequestration opportunities. See also Green Power.

Xcel Energy Inc.

NYSE : ***XEL***

Industry: ***Electric utilities***

Xcel Energy believes there is "considerable debate" in the environmental community and political arena concerning how to address climate change. It supports voluntary actions to manage GHG emissions. If GHG emissions become regulated, it would encourage a broad-based trading system that incorporates the use of carbon sinks and other sequestration options. In 2004, Xcel Energy announced a GHG management plan that calls for a 7% reduction in CO_2 intensity levels in 2003–2012. In certain jurisdictions, the evaluation process for future generating resources requires Xcel Energy to incorporate the risk of future carbon limits through the use of a carbon cost adder or externality costs. The company is also including a monetary value for renewable energy credits in its resource planning decisions in Colorado.

Summary Score: 53

Company Information	
	Xcel Energy is a major U.S. electricity and natural gas company, with operations in 10 Western and Midwestern states. It has four wholly owned utility subsidiaries: Northern States Power-Minnesota, Northern States Power-Wisconsin, Public Service Co. of Colorado and Southwestern Public Service Co. Xcel Energy had sales of $8.3 billion in 2004.

Contact Information	
CEO / Chairman	Richard Kelly
Contact	Tel: 612-330-5500 • Web: www.xcelenergy.com
Address	800 Nicollet Mall Minneapolis, MN 55402-5667 USA

Board Oversight	***Score: 7***
Board Committee	Operations, Nuclear & Environmental
Committee chair	A. Barry Hirschfeld, President, A.B. Hirschfeld Press (commercial printing company)
Actions Taken	In 2005, the board reviewed the company's greenhouse gas management plan and progress toward achieving its objectives; adopted an enhanced environmental policy emphasizing environmental initiatives and leadership, reviewed various environmental leadership initiatives; and discussed the company's enhanced corporate reporting format.

Management Execution	***Score: 11***
CEO Statement	*From 2004 annual report:* "In 2004, we announced our carbon management plan concerning emissions of carbon dioxide (CO2), a greenhouse gas. By 2009, the company will reduce total CO_2 emissions by a cumulative total of 12 million tons from 2003 levels. By 2012, Xcel Energy will reduce CO_2 intensity, which refers to pounds of CO2 emitted per megawatt-hour, by 7% from 2003 levels."
Chief Environmental Officer	Olon Plunk, Vice President, Environmental Services
Levels to CEO	2
Climate Change Executive	Olon Plunk
Executive Committee	Unnamed cross-functional team is involved in carbon management plan.
Link to Executive Compensation	Includes an environmental measurement related to air emissions, including CO_2, as a corporate goal and environmental responsibility as a business unit goal.

Xcel Energy Inc.

NYSE : ***XEL***
Industry: ***Electric utilities***

Public Disclosure

Score: 10

Company Statement

From 2004 Triple Bottom Line report:

"Xcel Energy notes that debate continues concerning the extent to which the earth's climate is warming, the causes of climate variations, and the ultimate extent of impacts that might result from a changing climate. Xcel Energy also notes that there is considerable debate regarding public policy for the approach the U.S. should follow to address the issue.

"Xcel Energy supports voluntary actions to manage [GHG] emissions and has established a voluntary program. If [GHG] emissions become regulated, it would strongly encourage a regulatory mechanism that provides industry with maximum flexibility to meet reduction goals in the most flexible, efficient and cost-effective manner so price impacts to customers are minimized. Such a framework should include a broad-based trading system and incorporate the use of carbon sinks and other sequestration options.

"Xcel Energy believes that this complex issue presents challenges, as current options to reduce carbon dioxide (CO_2) emissions from electricity generation are limited, and potential new technologies are still in development. However, the company is pursuing many different initiatives and technologies to try to reduce the environmental impact of electricity generation.

"Xcel Energy has assessed potential CO_2 compliance costs under a variety of policy scenarios…, [and] has derived a range of costs that it believes to be reasonable and consistent with politically viable potential carbon policy scenarios. Where required by utility commissions, it has incorporated potential CO_2 costs into its resource plan modeling. While not being an actual cost, this action may influence the energy resources ultimately selected by providing an advantage to lower or zero-emitting resources such as renewable energy.

"Although many public policy outcomes are possible, it believes high CO_2 compliance costs are unlikely, due to the detrimental impact that would have on the state and national economies…. It believes the concept of a carbon cost 'safety valve' is more likely. A safety valve involves a hybrid CO_2 cap-and-trade system accompanied by a specified fee or penalty for emissions beyond the initial cap."

Securities Filings Statement

Excerpt from Form 10-K:

"The issue of global climate change is receiving increased attention... While it is not possible to know the eventual outcome, Xcel Energy believes the issue merits close attention and is taking actions it believes are prudent to be best positioned for a variety of possible future outcomes. Xcel Energy is participating in a voluntary carbon management program and has established goals to reduce its volume of carbon dioxide emissions by 12 million tons by 2009 and to reduce carbon intensity by 7% by 2012. In certain jurisdictions, the evaluation process for future generating resources incorporates the risk of future carbon limits through the use of a carbon cost adder or externality costs. Xcel Energy also is involved in other projects to improve available methods for managing carbon."

Company Report

2004 Triple Bottom Line report

GRI Report

The company says it uses GRI guidelines to inform its corporate social responsibility reporting.

Carbon Disclosure Project

Not queried.

Emissions Accounting

Score: 13

Savings Calculated by Company

Amount: 8,053,849 tonnes of CO_2 ***Scope:*** Entity-level ***Time frame:*** 2004

These savings were registered with the U.S. Energy Information Administration under the Section 1605(b) reporting program.

GHG Emissions Inventory

2004 Amount: 72,359,684 tons of CO_2 ***Region:*** U.S.
2000 Amount: 72,414,698 tons of CO_2 ***Region:*** U.S.

Figures represent CO_2 emissions from owned fossil generation. Xcel Energy was formed by the merger of Northern States Power and New Century Energies in 2000. Predecessor companies reported CO_2 emissions to the EPA for many years prior to 2000.

2004 Amount: 2,172 lbs. CO_2/MWh ***Region:*** U.S. (intensity rate)
2000 Amount: 2,201 lbs. CO_2/MWh ***Region:*** U.S. (intensity rate)

Third Party Vertification

No, except for Continuous Emission Monitors.

Reporting Protocol

None identified.

Xcel Energy Inc.

NYSE : ***XEL***
Industry: ***Electric utilities***

Strategic Planning		***Score: 12***
Emissions Targets	***Baseline year:*** 2003 ***Target year:*** 2009 ***Region:*** U.S. ***Amount:*** 12 million tons of CO_2 reduction (relative to baseline growth projections) ***Baseline year:*** 2003 ***Target year:*** 2012 ***Region:*** U.S. (intensity rate) ***Amount:*** 1,531 lbs. CO2/MWh (vs. 1,646 MWh in 2003) Xcel Energy plans to reduce the CO_2 intensity of power generation by 7% by 2012, reducing projected growth in emissions by 12 million tons in 2003–2009. To meet these goals, Xcel Energy plans to triple its wind generation, seek license extensions for its two nuclear power plants, convert two coal-fired plants to natural gas and upgrade a third coal plant, participate in several carbon sequestration projects, increase its energy conservation opportunities for customers, and pursue many innovative technology projects, including central station and distributed solar, and a wind-to-hydrogen project. The company is also investigating the feasibility of integrated gasification combined cycle (IGCC) using low-sulfur western coal at high altitude.
GHG Emissions Trading	None identified.
Green Power	Xcel Energy expects to be the largest utility wind energy user in the U.S. by 2007. In December 2005, the company announced its intent to acquire an additional 775 MW of wind power capacity for its Colorado system by the end of 2007, raising the wind power capacity for its entire system to 2,300 MW. Xcel Energy also has 27 hydroelectric plants located in Wisconsin, Minnesota and Colorado that account for more than 4% electricity generation. Three plants produce about 66 MW of electricity form fuel derived from municipal solid wastes or garbage. Xcel Energy reports that its Windsource program is the largest voluntary green pricing energy program in the United States, with more than 43,000 customers in Colorado, Minnesota and New Mexico. Several of the states Xcel Energy serves, including Colorado, Minnesota, New Mexico, Texas and Wisconsin, have state requirements for renewable energy.
Energy Efficiency	Northern States Power is forecasting 1,174 MW of demand reduction in 2000-2015 through conservation/load management programs. Public Service Co. of Colorado is forecasting 124 MW of demand reduction in 2000–2015 from its 1999 integrated resource plan. The company is also implementing an increased amount of energy efficiency programs in Colorado beginning in 2006 through its 2003 least-cost resource plan, which is designed to achieve 320 MW of demand reduction over 10 years. Southwestern Public Service is operating efficiency programs that achieve 3–5 MW of load reduction per year.
Commercial Business	See Green Power and Energy Efficiency.

Corporate Governance Profiles

Motor Vehicles

BMW (Bayerische Motoren Werke AG)

German Stock Exchange: ***BMW***

Industry: ***Motor vehicles***

BMW has two members of its Board of Management who oversee the company's environmental issues, including climate change. BMW reduced its CO_2 emissions per unit of production by 24% in 1996–2004, although its absolute emissions increased by 49%. BMW specializes in production of high-performance luxury cars that place an emphasis on driving features other than fuel economy. Its short- and mid-term focus is on the improvement of conventional engine and vehicle technologies, such as gasoline direct injection and advanced diesel engines. In 2005, it joined a partnership between General Motors and DaimlerChrysler to develop full hybrid systems for vehicles. BMW regards the hydrogen-powered internal combustion engine as the drive concept of the future; it plans to launch a test fleet for customer use in the next three years. BMW publishes a biennial sustainability report that reports on its progress.

Summary Score: 35

Company Information

BMW is one of Europe's top automakers. The company has three brands—BMW, MINI and Rolls-Royce—and concentrates on the premium segments of the worldwide automobile and motorcycle markets. It had sales of $60.4 billion in 2004.

Contact Information

Chairman of Board of Mgmt.	Helmut Panke
Chairman of Supervisory Board	Joachim Milberg
Contact	Tel: 49-89-382-0 • Web: www.bmwgroup.com
Address	Petuelring 130 D-80788 Munich, Germany

Board Oversight

Score: 5

Board Committee	Norbert Reithofer, Production, and Prof. Burkhard Göschel, Development, are members of the Board of Management who play an oversight role on environmental matters.
Actions Taken	Reithofer and Göschel monitor the company's CO_2 emissions from production and product use, as well as energy management and advanced technology strategies.

Management Execution

Score: 3

Chairman Statement	None identified.
Chief Environmental Officer	Tobial Premauer, Director of Environmental Affairs
Levels to CEO	2
Climate Change Executives	Tobial Premauer manages climate change issues related to production. Klaus Scheuerer, Representative of the Board for Traffic and Environment, manages climate change issues related to product use, including energy management, aerodynamics and driving performance.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 7

Company Statement	*From the 2005/06 Sustainable Value report:* "In order to achieve a global task such as climate protection, measures must be taken, for example, to reduce fleet consumption and CO_2 emissions at plants. At the same time, this aim triggers the development of new, resource-saving production and propulsion technologies. These processes result in future markets such as will develop for hydrogen drive… The BMW Group supports the Kyoto targets… BMW's life cycle assessment of its vehicles includes global warming potential."
Securities Filings Statement	*From Management Discussion & Analysis:* "The change in fuel prices, partly affected by the market and partly by governmental tax policies, and the requirement to reduce fleet fuel consumption and CO_2 emissions, all set high demands on engine and product development."
Company Report	*Sustainable Value Report 2005/2006*
GRI Report	See above (in accordance).
Carbon Disclosure Project	Answered questionnaire, but denied public disclosure.

BMW (Bayerische Motoren Werke AG)

German Stock Exchange: ***BMW***
Industry: ***Motor vehicles***

Emissions Accounting

Score: 14

Savings Calculated by Company

Amount: 24% reduction in CO_2 emission rates from production
Scope: Entity-level ***Time frame:*** 1996–2004

The BMW Group achieved this reduction mainly by switching to natural gas, adding combined heat and power systems and employing community heating.

GHG Emissions Inventory

2004 Amount: 1,169,786 tonnes of CO_2 ***Region:*** Global
1996 Amount: 786,879 tonnes of CO_2 ***Region:*** Global

These inventory figures include direct emissions of CO_2 and CO_2 emissions from external power generation.

2004 Amount: 0.94 tonnes of CO_2 per vehicle produced ***Region:*** Global (intensity rate)
1996 Amount: 1.23 tonnes of CO_2 per vehicle produced ***Region:*** Global (intensity rate)

Third Party Vertification

No.

Reporting Protocol

None identified.

Strategic Planning

Score: 6

Emissions Targets

Baseline year: 1995 ***Target year:*** 2008 ***Region:*** Europe
Amount: 25% decrease in CO_2/km—fleet emissions per vehicle

In Europe, BMW is part of a voluntary industry agreement to cut average fuel consumption and CO_2 emissions from new cars by 25% in 1995–2008. The industry had achieved a 13% improvement as of 2004. In Germany, BMW is part of a similar voluntary industry agreement to increase the average fuel economy of new cars by 25% in 1990–2005. The BMW Group achieved the target in 2003, reducing emissions by 26%. BMW reports that reductions were achieved through various improvements, including in drive technology, aerodynamics and lightweight automotive engineering. Both the inclusion of new models with economical fuel consumption, such as the MINI, and the increase in the share of diesel vehicles lowered the fuel consumption of the BMW Group's fleet.

GHG Emissions Trading

Voluntary programs—None identified.

Government programs—Each of BMW's major European production sites is subject to the E.U. Emissions Trading Scheme. When trading began in 2005, the BMW Group showed a balanced account between the CO_2 emissions expected at these sites and the allocated emission allowances.

Green Power

A BMW plant in Spartansburg, Va., acquires around one-quarter of its energy from methane gas from a nearby public landfill. A BMW retail outlet in The Hague in the Netherlands uses a stationary fuel cell to produce electricity and heat.

Energy Efficiency

For its vehicles, the BMW Group says that it constantly enhances the efficiency of the conventional internal combustion engine. Much of its model line, however, consists of high-performance luxury cars that place an emphasis on driving features other than fuel economy.

For some production sites, the BMW Group's Research and Innovation Center harnesses the natural energy of groundwater cooling, as well as energy generated by engine test stands, to save energy and reduce CO_2 emissions. In Munich, the BMW Group and the Munich City Utilities have developed a concept employing groundwater cooling that avoids up to 4,500 tons of CO_2 emissions a year.

Commercial Business: ***Hydrogen internal combustion engines***

BMW is a leader in the development of vehicles with hydrogen-powered internal combustion engines. Its sixth generation of hydrogen vehicles has been tested in the current BMW 7 Series and is in the process of series development. Within the next three years, BMW will allow customers to lease and test-drive these vehicles in order to optimize the concept in daily use. Because these vehicles can use both hydrogen and conventional fuel, BMW believes they create the ideal conditions for a transition from non-regenerative to regenerative drive energies. BMW opened the first fully automatic and public hydrogen filling station at Munich airport in 1999. In autumn of 2004, the world's largest hydrogen filling station went into service in Berlin through the Clean Energy Partnership, an initiative of the German Federal Government in which BMW participates.

Hybrid vehicles

In September 2005, BMW joined a partnership between GM and DaimlerChrysler to develop petrol-electric hybrid vehicles. The BMW Group also has a concept vehicle—the BMW Concept X3 Efficient Dynamics—that combines the hybrid concept with the next generation of direct injection gasoline engine on an SUV.

DaimlerChrysler AG

NYSE: ***DCX***

Industry: ***Motor vehicles***

DaimlerChrysler (DCX) has two executive-level councils that guide its environmental policies for facilities and products. In the U.S., the Chrysler Group has set a goal to reduce the GHG intensity of production by 10% in 2002–2012. DCX regards reductions in CO_2 exhaust emissions as a "key challenge." It says it is following a three-step strategy: further improve internal combustion engine technology; develop hybrids as a bridging technology; and, finally, offer commercial fuel cell propulsion systems. About half of DCX's European passenger fleet has diesel engines. DCX introduced two new diesel vehicle models in the U.S. in 2004. DCX is in partnership with General Motors and BMW to develop a two-mode full hybrid system for gasoline and diesel engines that it plans to use in a full size pickup truck sometime after 2007. DCX is also in partnership with Volkswagen and Choren Industries to make SunDiesel, a biofuel, widely available in Europe.

Summary Score: 43

Company Information	
	DaimlerChrysler manufactures passenger cars, sport-utility vehicles, minivans and pickups and is the world's largest manufacturer of commercial vehicles. In addition, DCX holds a 33% interest in the European Aeronautic Defence and Space Company. It had sales of $192.3 billion in 2004.
Contact Information	
Chairman of Board of Mgmt.	Dieter Zetsche
Chairman of Supervisory Board	Hilmar Kopper
Contact	Tel: 49-711-17-0 • Web: www.daimlerchrysler.com
Address	Epplestrasse 225 Stuttgart 70567, Germany
Board Oversight	***Score: 5***
Board Committee	Thomas Weber, a member of the Board of Management for research and technology, is responsible for board oversight of environmental matters.
Actions Taken	The Board of Management (BoM) and the Executive Automotive Committee (EAC) discuss effects on fuel consumption prior to product decisions. The BoM and EAC hold several meetings each year to include discussion of exhaust emissions and fuel consumption, which address GHG emissions indirectly.
Management Execution	***Score: 8***
Chairman Statement	*From 2004 Environmental Report (former Chairman Jurgen Schrempp):* "Achieving a further reduction in fuel consumption and CO_2 emissions is the central topic as we strive for sustainable mobility. The first step down this road is the ongoing optimization of conventional gasoline and diesel engines, whose potential is far from exhausted. Other aspects include the production of improved fuels and new synthetic ones. And finally, we are continuing our intensive work on alternative powertrains. In this respect we consider hybrid drive systems an important interim step en route to fuel cell drive—the technology of the long-term future."
Chief Environmental Officer	Herbert Kohler, Vice President Research Body and Powertrain
Levels to CEO	1
Climate Change Executive	Herbert Kohler
Executive Committee	Global Facility Environmental Council and Global Product Environmental Council. Kohler chairs both of these executive-level councils. The facilities council consists of environmental representatives of manufacturing plants as well as sales and marketing. The products council includes the environmental representative of products as well as representatives of technology and environmental communication, corporate strategy and external affairs and public policy.
Link to Executive Compensation	An internal environmental evaluation system is used to evaluate issues and activities and compliance with target agreements, and is part of the compensation of top managers.

DaimlerChrysler AG

NYSE: ***DCX***
Industry: ***Motor vehicles***

Public Disclosure

Score: 8

Company Statement

From 2005 Sustainability Profile:

"Among the major ecological challenges facing the global community in the years ahead are the finite nature of the Earth's fossil resources, and a worldwide increase in energy consumption with the resulting rise in the carbon dioxide concentration in the atmosphere. So our core objective is clear: We want to reduce CO_2 emissions and our dependence on fossil fuels. But this goal will not be achieved through improvements in vehicle design alone. Rather, we must exploit every aspect of the entire vehicle-fuel system. That's why we are currently focusing on two areas of activity: vehicles and powertrains, and—as an auxiliary measure—fuels."

Securities Filings Statement

Excerpt from Form 20-F:

DCX devotes five paragraphs to a discussion of motor vehicle fuel economy, related federal laws and proposed state regulations, European requirements and other national requirements that in some instances involve controls on CO_2 emissions. DCX says it is part of the Alliance of Automobile Manufacturers, which opposes U.S. federal legislation to regulate CO_2 emissions under the Clean Air Act as well as state legislation to limit CO_2 emissions from automobiles. DCX and General Motors also have filed a lawsuit to block such legislation from taking effect in California. It says, "State regulation in this area, if upheld, could be costly to us and could significantly restrict the products we are able to offer in the United States."

In Europe, DCX is part of an industry agreement to reduce average CO_2 emissions from new vehicles by 25% in 1995-2008. DCX says regulations being considered in Europe to achieve more reductions "would require us to incur significant costs to improve engine and overall efficiency and reduce vehicle weight significantly."

DCX ends with a discussion of "Future Challenges." It says: "A key challenge for sustainable mobility will be the further reduction of both conventional fossil oil based fuel consumption and exhaust emissions, especially [CO_2]… Maintaining and securing our position among the leading companies in the area of alternative propulsion technologies is a cornerstone of our strategy."

Company Report

Environmental Report 2005

GRI Report

Sustainability Profile 2005: Reporting on our Common Future

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 14

Savings Calculated by Company

Amount: 420,684 tonnes of CO_2e in 2002 ***Scope:*** Entity level (U.S.)

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program.

Amount: 12% reduction in CO_2 emission rates from production
Region: Global (intensity rate) ***Time frame:*** 2002–2004 (Chrysler Group only)

GHG Emissions Inventory

2004 Amount: 7,053,897 tonnes of CO_2e ***Region:*** Global
1992 Amount: 6,550,000 tonnes of CO_2e ***Region:*** Global

Third Party Verification

For facilities in Europe, data is verified through the EMAS validation system.

Reporting Protocol

Values are computed and presented in line with the GHG Protocol.

Strategic Planning

Score: 8

Emissions Targets

Baseline year: 2002 ***Target year:*** 2012 ***Region:*** U.S. intensity rate
Amount: 10% decrease in CO_2 manufacturing emissions per vehicle produced

The Chrysler Group achieved an 11% reduction between 2002 and 2004.

Baseline year: 1995 ***Target year:*** 2008 ***Region:*** Europe
Amount: 25% decrease in CO_2/km—fleet emissions per vehicle

In Europe, DCX is part of a voluntary industry agreement to cut average fuel consumption and CO_2 emissions from new cars by 25% in 1995–2008. DCX is part of a similar agreement in Germany to increase average fuel economy of new cars by 25% in 1990–2005. DCX had achieved a 29% reduction as of 2004.

DaimlerChrysler AG

NYSE: ***DCX***
Industry: ***Motor vehicles***

Strategic Planning	*(continued)*
GHG Emissions Trading	***Voluntary programs***—DCX has participated in government-industry discussions about GHG emission trading for several years. It has also been part of research projects and pre-operating studies, including an internet-based emission trading pilot project for companies in the state of Baden-Württemberg in 2002. ***Government programs***—DCX has 11 German facilities subject to the E.U. Emissions Trading Scheme.
Green Power	See Biodiesel below
Energy Efficiency	At its manufacturing facilities, DCX has increased energy efficiency by 15–25% over the last decade. However, it has not improved the combined fuel economy of its U.S. vehicle fleet, which now is dominated by light truck offerings (about two-thirds of total production). In Europe, DCX has offered a micro compact car, the smart city-coupe cdi, which gets up to an average fuel consumption of 69 mpg. DCX is investigating the launch of the smart brand in the United States.
Commercial Business: ***Diesel engines***	Nearly half of Daimler's European fleet has diesel engines. In 2004, it began selling two diesel-powered vehicles in the U.S., the Mercedes-Benz E-Class 320 CDI sedan and Jeep Liberty CRD Ltd.
Biodiesel	DCX is helping to develop SunDiesel—a liquid diesel fuel derived from biomass, such as wood, straw or energy crops, which is largely carbon neutral. DCX has been testing SunDiesel in several Mercedes Benz E-Class models since 2003. To develop an infrastructure for production of SunDiesel, DCX and Volkswagen are working with three German federal states on a showpiece project for Northern Europe. DCX and Volkswagen's project partner, Choren Industries GmbH, has been producing the first fuel of this kind since 2003 at a pilot plant in Saxony. A second, larger plant is under construction. When adequate supplies are available, DCX intends to use SunDiesel for the factory fill of its new diesel-engined models. DCX already offers flexible fuel vehicles capable of operating on both gasoline and ethanol blend fuels.
Natural gas engines	DCX's Sprinter NGT van has been available with an optional natural gas propulsion system since 1997. DCX also launched a natural gas and gasoline powered Mercedes-Benz E 200 NGT sedan in Germany in 2004. In the U.S., the Orion and Thomas Built brands offer a number of buses with natural gas propulsion systems, while Freightliner, Sterling and Western Star offer several natural gas trucks. The Mercedes-Benz Econic—a vehicle for refuse collection and curbside recycling—has a natural gas engine.
Hybrid vehicles	DCX says it will not introduce hybrid passenger vehicles on a wide scale until they can provide better fuel economy than a comparable diesel-powered vehicle at competitive prices, and with comparable handling and comfort. In late 2004, DCX and General Motors announced a combined effort to develop two-mode full hybrid propulsion architecture for usage in Mercedes Car Group, Chrysler Group and GM vehicles. (BMW joined this partnership in 2005.) DCX is slated to use this technology in a Dodge Durango pickup truck sometime after 2007. In January 2006, DCX introduced a concept version of its Mercedes-Benz S-Class "Hybrid" equipped with an eight-cylinder CDI diesel engine and two electric motors that delivers 340 horsepower —a record for hybrid drive systems. In 2004, DCX began limited production of the Dodge Ram diesel hybrid that can function not only as a vehicle, but also as a mobile electric recharging station. This same mild hybrid diesel-electric system, built by BAE Systems, has been installed in 325 commuter buses in New York City, with 500 more on order. In 2005, DCX produced five new plug-in Mercedes Benz Hybrid Sprinter delivery vans.
Fuel cells	DCX has been testing various concepts for fuel cell vehicles since 1994. It has developed as many as 20 different vehicle prototypes with fuel cell drives and has more than 100 fuel cell powered vehicles on the road. These include 36 Mercedes-Benz Citaro fuel cell buses operating in 10 European cities, 60 Mercedes-Benz A-Class "F-Cell" passenger cars, 3 Dodge Sprinter delivery vans and 10 R&D models. In the U.S., DCX is working with DOE, EPA and UPS, and helped found the California Fuel Cell Partnership. DCX also is a major partner in the "Clean Energy Partnership" fuel cell project in Berlin and has a partnership with Tokyo Gas Co. and Bridgestone Corp. in Japan. DCX owns a 19% stake in fuel cell manufacturer Ballard Power Systems of Canada.

Ford Motor Co.

NYSE: ***F***
Industry: ***Motor vehicles***

Ford issued the auto industry's first stand-alone report on climate change in 2005. It says that developing vehicles that dramatically lower GHG emissions is becoming a major competitive advantage in the auto industry, as well as a key element in building the company for the future. Ford has set targets to reduce facility GHG emissions in North America and in the U.K. It is also part of voluntary industry agreements in Europe and Canada to reduce CO_2 emissions from new vehicles. However, it opposes U.S. legislative proposals to institute mandatory CO_2 controls on such emissions. Ford is the only U.S. automaker at present to produce full hybrid vehicles, with plans to increase annual production tenfold by 2010.

Summary Score: 58

Company Information	
	Ford Motor makes, assembles and sells cars, vans, trucks and tractors and their related parts and accessories. The company also provides financing operations, vehicle and equipment leasing, and insurance operations. It had sales of $172 billion in 2004.
Contact Information	
CEO / Chairman	William Clay Ford Jr.
Contact	Tel: 313-322-3000 • Web: www.ford.com
Address	One American Rd Dearborn, MI 48126-2798 USA
Board Oversight	***Score: 9***
Board Committee	Environmental and Public Policy Committee
Committee Chair	William Clay Ford Jr., Chairman and CEO
Actions Taken	In response to a shareholder resolution, this board committee reviewed a report in 2005 by senior executives that examines the business implications of reducing GHG emissions from operations and products, with special reference to government policies and advanced technology development.
Management Execution	***Score: 13***
CEO Statement	*From 2004 annual report:* "We are the only auto company doing serious development work with four of the most promising advanced fuel technologies: clean diesels, gasoline-electric hybrids, hydrogen-powered internal combustion engines and fuel cell vehicles. We are working hard to introduce technologies in the near term that help improve fuel economy and reduce greenhouse gases that affect the climate. As we look further ahead, we are especially excited about creating a path to a clean, renewable, hydrogen-powered future…. "We are doing our development in-house, with technical talent and a depth of capability that we'd match against anyone in the world. However, given the enormity of the task, we believe that partnerships involving industry, energy providers and government will be required to make hydrogen power a reality… "[Hydrogen] could redefine the competitive landscape of the automotive industry in the 21st century."
Chief Environmental Officer	Susan Cischke, Vice President, Environmental & Safety Engineering
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	Climate Change Task Force Ford established this vice-presidential task force in 2003 to examine potential strategies and product scenarios to achieve GHG reductions. It has worked in three major areas: establishing an organization and governance process to develop Ford's strategic approach to sustainable mobility; overseeing preparation of a stand-alone climate change report; and planning fuel economy improvements through technological solutions. The task force also completed a review of the scientific evidence, concluding that a consensus is forming around the appropriateness of a broad societal goal to stabilize atmospheric CO_2 concentrations.
Link to Executive Compensation	Ford told IRRC in 2003 that environmental performance is a factor in the compensation of senior executives and operating managers.

Ford Motor Co.

NYSE: ***F***
Industry: ***Motor vehicles***

Public Disclosure

Score: 12

Company Statement

From 2005 Report on the Business Impact of Climate Change:

"Concerns about climate change—along with growing constraints on the use and availability of carbon-based fuels—affect our operations, our customers, our investors and our communities… The relevant long-term challenge facing society today and in the future is to stabilize the concentration of GHGs in the atmosphere at a level that prevents dangerous human-induced interference with the climate system.

"… [W]hile we are proud of our accomplishment in reducing CO_2 from our operations and have benefited from the energy cost savings that go with it, we recognize that only about 10% of the lifetime GHG emissions from a vehicle occur during its production. The remaining 90% attributed to each vehicle is emitted when the customer is using it—when it burns gasoline or diesel fuel from fossil sources.

"We are taking a wide range of actions that help reduce the in-use GHG emissions of our vehicle fleet—from expanding our hybrid lineup, to encouraging more use of ethanol fuel, to shifting our mix of products to more fuel efficient cars, to improving the efficiency of conventional gasoline and diesel engines….

"[W]e believe policies that put constraints on carbon need to focus on all sectors of the economy. They should encourage conservation and the introduction of lower-carbon fuels… while increasing the demand for more energy efficient products across all sectors at the lowest possible social cost and at a pace consistent with consumer demand and economic viability… with incentives playing a key role."

Securities Filings Statement

From Form 10-K:

Ford devotes seven paragraphs in its 2004 Form 10-K to a discussion of motor vehicle fuel economy, related federal laws and proposed state regulations, European requirements and other national requirements that in some instances involve CO_2 emission controls. Ford says it is part of the Alliance of Automobile Manufacturers, which opposes U.S. federal legislation to regulate CO_2 emissions under the Clean Air Act as well as state legislation to limit CO_2 emissions from automobiles. In Europe, Ford is part of an industry agreement to reduce average CO_2 emissions from new automobiles by 25% in 1995–2008. Ford says efforts in Europe to achieve additional emission reductions, or to tax vehicles based on their CO_2 emissions, "could have substantial adverse effects on our sales volumes and profits in Europe." Similar proposals in Canada also could result in "costly vehicle or market actions to achieve these targets."

Company Report

2004-2005 Sustainability Report: Our Route to Sustainability

GRI Report

See above (in accordance).

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 12

Savings Calculated by Company

Amount: 1,300,000 tonnes of CO_2e ***Scope:*** Project level ***Time frame:*** 1998–2003

These savings were reported to the Energy Information Administration under the Section 1605(b) program.

GHG Emissions Inventory

2004 Amount: 8,400,000 tonnes of CO_2 from vehicle manufacturing ***Region:*** Global
1990 Amount: 8,900,000 tonnes of CO_2 ***Region:*** Global

Other GHG emissions, such as N2O and CH4, are equal to 1–3.5% of CO2 emissions. Ford estimates the global warming impact of R-134a refrigerant leakage from vehicles equipped with air conditioning is equivalent to about 4–5% of the CO2 emitted from such vehicles.

2003 Amount:
1.34 tonnes of CO_2–manufacturing emissions per vehicle ***Region:*** Global (intensity rate)
1998 Amount:
1.30 tonnes of CO_2–manufacturing emissions per vehicle ***Region:*** Global

2004 Amount:
240 grams CO_2/km–fleet emissions per vehicle ***Region:*** U.S. (vehicle CO_2 rate)
1999 Amount:
233 grams CO_2/km–fleet emissions per vehicle ***Region:*** Global

Ford Motor Co.

NYSE: ***F***
Industry: ***Motor vehicles***

Emissions Accounting	*(continued)*
Third Party Vertification	Yes, in North America and United Kingdom.
Reporting Protocol	GHG Protocol. Ford has supported the GHG Protocol and is a member of the Revisions Working Group preparing the second edition of a Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.
Strategic Planning	***Score: 12***
Emissions Targets	***Baseline year:*** 2002 ***Target year:*** 2012 ***Region:*** U.S. (intensity rate) ***Amount:*** 10% decrease in CO_2 manufacturing emissions per vehicle produced Ford plans to cut its North American facility GHG emissions by 10% by 2006, relative to a 1998-2001 baseline, as part of its membership in the Chicago Climate Exchange. ***Baseline year:*** 1995 ***Target year:*** 2008 ***Region:*** Europe ***Amount:*** 25% decrease in CO_2/km-fleet emissions per vehicle In Europe, Ford is part of a voluntary industry agreement to cut average fuel consumption and CO_2 emissions from new cars by 25% in 1995–2008. Ford is part of a similar emissions-reducing agreement in Canada that seeks 5.3 million tonnes in aggregate fleet reductions in 2005–2010.
GHG Emissions Trading	***Voluntary programs***—Ford is a founding member and the only auto manufacturer participating in the U.K. Emissions Trading Scheme and the Chicago Climate Exchange. ***Government programs***—None identified.
Green Power	Green power supplies 3% of Ford's global energy needs and 5% of its U.S. energy needs. Ford is a founding member of the U.S. EPA Green Power Market Development Group.
Energy Efficiency	Ford has a target to improve global manufacturing energy efficiency by 1% annually, following an improvement of more than 12% in 2000-2004, normalized for changes in production. Ford's U.S. vehicle fleet has the lowest Corporate Average Fuel Economy average of any major manufacturer. Combined sales weighted car and truck fleet average CO_2 emissions increased 3% in 1999–2004. Ford is expanding the application of existing technologies that deliver fuel economy benefits, including variable valve timing, fuel shut off, direct injection gasoline engines, clean diesel and six-speed transmissions.
Commercial Business: ***Gasoline-electric hybrids***	Ford announced plans in 2005 to increase hybrid production ten-fold, to approximately 250,000 units annually, by 2010. Ford launched its first hybrid, the Escape Hybrid SUV, in 2004. Ford recently launched its second hybrid—the Mercury Mariner subcompact SUV—and plans to produce two hybrid sedans in 2008—the Ford Fusion and Mercury Mariner. Ford's Japanese partner, Mazda, plans to introduce a Tribute Hybrid SUV in 2007.
Diesel hybrids	Ford's Mercury Meta One advanced research concept car is the first partial zero-emission-capable diesel hybrid powertrain. With BP, Ford is exploring biomass-sourced diesel fuel. Ford has launched "Hytrans," a transit diesel-electric hybrid application project, in England.
Hydrogen internal combustion engines	Ford has sold 8 V-10, H2ICE-E-450 shuttle buses with hydrogen-powered internal combustion engines to the state of Florida. It planned to have another five in operation in California in 2005 and to lease 100 in 2006.
Fuel cells	Ford is road testing more than 50 hydrogen fuel cell test vehicles. In 2005, it undertook with the Department of Energy a seven city, 30-car program to evaluate its Ford Focus sedan FCV, which has third generation technology. Ford is working with BP to develop a network of hydrogen fueling stations and has a 20% equity stake in Ballard Power Systems, a fuel cell manufacturer.
Flexible fuel vehicles	Ford is the largest manufacturer of alternative fuel vehicles, having produced more than 1.5 million flexible fuel vehicles in the last decade. Ford announced plans in 2005 to expand production of flexible fuel vehicles in 2006 to as many as 280,000 units, including on some hybrid models. Ford also has a partnership with VeraSun, a provider of bio-ethanol fuels, to both expand infrastructure and engage customers on the merits of bio-ethanol and FFVs.

General Motors Corp.

NYSE: ***GM***
Industry: ***Motor vehicles***

General Motors was one of the first companies to establish a board-level Public Policy Committee and produce an annual corporate responsibility report. It has been tracking its GHG emissions since 1990 and has set targets to reduce GHG emissions from its North American facilities and global operations. GM is part of voluntary industry agreements in Europe and Canada to reduce CO_2 emissions from new vehicles. However, it opposes proposed U.S. legislation to institute mandatory CO_2 controls on these emissions. GM has invested $1 billion in fuel cell technology and is working to design and validate a fuel cell propulsion system by 2010 that is competitive in terms of durability and performance, and that ultimately can be mass produced. GM plans to introduce 12 hybrid models between mid-2006 and 2010. To date, GM has offered hybrid components in a limited number of transit buses and pickup trucks.

Summary Score: 52

Company Information	
	General Motors is the world's largest vehicle manufacturer. It has manufacturing operations in 32 countries and its vehicles are sold in 200 countries. GM's automotive brands are Buick, Cadillac, Chevrolet, GMC, Holden, HUMMER, Opel, Pontiac, Saab, Saturn and Vauxhall. The company also provides financing through GMAC. It had sales of $193.5 billion in 2004.
Contact Information	
CEO / Chairman	G. Richard Wagoner Jr.
Contact	Tel: 313-665-5000 • Web: www.gm.com
Address	300 Renaissance Ctr Detroit, MI 48265-3000 USA
Board Oversight	***Score: 6***
Board Committee	Public Policy Committee (PPC)
Committee Chair	Percy Barnevik, former Chairman, AstraZeneca PLC (retired)
Actions Taken	Focus areas discussed with the PPC have included sustainable mobility, climate change, energy concerns and CO_2 emissions, advanced technology and the move toward a hydrogen economy.
Management Execution	***Score: 8***
CEO Statement	None identified.
Chief Environmental Officer	Elizabeth Lowery, Vice President, Energy & Environment
Levels to CEO	1
Climate Change Executive	Elizabeth Lowery
Executive Committee	Energy & Environmental Strategy Board (EESB) The EESB sets the overall direction for global energy and environmental policy within GM. Accountable to the Automotive Strategy Board, EESB members include senior leaders from Engineering, Powertrain, Communications, Worldwide Facilities/Manufacturing, Public Policy & Legal, and R&D and Planning. It is chaired by Thomas Stephens, Group VP, GM Powertrain. GM also has a Public Policy Center led by company vice presidents that anticipate external trends and changes to ensure that GM's strategic plans and operating practices comprehend the changing public policy environment.
Link to Executive Compensation	Specific goals for reductions in CO_2 emissions from facilities have been included in appropriate employees' performance objectives, which impacts their compensation.
Public Disclosure	***Score: 8***
Company Statement	*From 2005 response to Carbon Disclosure Project:* "GM believes the development and global implementation of new, cost-effective energy technologies in all sectors, such as hydrogen fuel cells, is the most effective way to improve energy efficiency and reduce [GHG] emissions. This approach is best facilitated by relying on voluntary initiatives and market-oriented measures, not government mandates. In addition to developing new technologies, GM continues to reduce GHG emissions from its facilities. GM also [supports] scientific research to improve the understanding of the relationship between economic growth and other human activities and the climate system."

General Motors Corp.

NYSE: ***GM***
Industry: ***Motor vehicles***

Public Disclosure *(continued)*

Securities Filings Statement *Excerpt from Form 10K:*

"Industrial Environmental Control: GM is implementing various voluntary initiatives to reduce energy consumption and greenhouse gas emissions from its operations around the globe. GM is on track to meet its target by 2005 of a reduction of 8% in carbon dioxide (CO_2) emissions from its global facilities over 2000 levels. By 2004, GM had reduced CO_2 emissions from its U.S. facilities by 22% over 1990 levels. Seven GM facilities are included in the European emissions trading regime… under the Kyoto Protocol."

The Form 10-K also discusses California legislation to regulate GHG emissions from motor vehicles (which GM and other auto makers have challenged in court) as well as a voluntary industry agreement to reduce CO_2 emissions rates from new passenger cars sold in the European Union by 25% in 1995–2008. GM does not characterize how these regulations might affect its sales volumes and profitability.

Company Report *2004/05 GM Corporate Responsibility Report*

GRI Report See above (in accordance).

Carbon Disclosure Project Answered questionnaire, permitted disclosure.

Emissions Accounting ***Score: 17***

Savings Calculated by Company

Amount: 3,190,000 tonnes of CO_2e ***Scope:*** Entity-level (U.S.) ***Time frame:*** 1990–2004

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program. Over the same period, GM reported 12,640,000 tonnes of project-level reductions. In 1995, GM became the first automaker to voluntarily report its GHG emissions with this registry. GM participates in similar voluntary registries sponsored by the governments of Canada and Australia.

GHG Emissions Inventory

2004 Amount: 12,350,000 tonnes of CO_2 from facilities ***Region:*** Global
2000 Amount: 14,100,000 tonnes of CO_2 ***Region:*** Global

2004 Amount: 8,480,000 tonnes of CO_2 from facilities ***Region:*** U.S.
1990 Amount: 11,670,000 tonnes of CO_2 ***Region:*** U.S.

GM achieved these emissions savings mainly by converting coal and oil-fired powerhouses to natural gas and through energy management programs. Including factory-filled halogenated GHGs used in vehicle air conditioning, composite GHG emissions fell 77% in 1990–2004.

2004 Amount: 235 grams CO_2/km-fleet emissions / vehicle ***Region:*** U.S. (vehicle CO_2 rate)
1990 Amount: 224 grams CO_2/km ***Region:*** U.S.

Third Party Verification Yes, for energy usage data, which is used to calculate CO_2 emissions.

Reporting Protocol GM developed and implemented its Global GHG Reporting Protocol (GGRP) in 2001. The GGRP combines the work that GM has done with the U.S. Department of Energy, the U.S. Energy Information Administration and the World Resources Institute (for the GHG Protocol).

Strategic Planning ***Score: 13***

Emissions Targets

Baseline year: 2002 ***Target year:*** 2012 ***Region:*** U.S. (intensity rate)
Amount: 10% decrease in CO_2 manufacturing emissions per vehicle produced

Baseline year: 2000 ***Target year:*** 2005 ***Region:*** North America
Amount: 10% decrease in CO_2 manufacturing emissions from facilities

In 2006, the EPA recognized GM for being among the first companies to achieve voluntary GHG reduction goals set through Climate Leaders. GM achieved a 17% reduction in 2000-2005 and is working with EPA to establish a post-2005 goal. More than 80% of GM's emissions from operations are in North America.

Baseline year: 2000 ***Target year:*** 2005 ***Region:*** Global
Amount: 8% decrease in CO_2 manufacturing emissions from facilities

GM had surpassed this target as of 2004, achieving a 13.6% reduction, mainly through fuel switching, energy management systems and plant consolidation.

Baseline year: 1995 ***Target year:*** 2008 ***Region:*** Europe
Amount: 25% decrease in CO_2/km–fleet emissions per vehicle

In Europe, GM is part of a voluntary industry agreement to cut average fuel consumption and CO_2 emissions from new cars by 25% in 1995–2008.

General Motors Corp.

NYSE: ***GM***
Industry: ***Motor vehicles***

Strategic Planning	*(continued)*
GHG Emissions Trading	***Voluntary programs***—GM has engaged in some proprietary transactions to buy or sell credits of CO_2 or other greenhouse gases. GM has contracted privately with a third party to receive financial and technical assistance to reduce energy consumption in specific operations in exchange for allocation of a portion of the resulting CO_2 reductions to the other party. ***Government programs***—GM has seven facilities included in the E.U. Emissions Trading Scheme.
Green Power	In 2005, about 2% of GM's North American operations energy usage was from renewable resources. GM is a member of EPA's Green Power Partnership, which is committed to securing at least 2% of energy supply from renewables. GM also is one of 12 corporate members of the Green Power Market Development Group, organized by the World Resources Institute. This group has set a goal of developing corporate markets for 1,000 megawatts of new green power by 2010, equal to roughly 8% of current U.S. renewable energy capacity. GM is the nation's largest industrial user of landfill gas.
Energy Efficiency	GM achieved a global facility energy reduction of 13.6% in 2000–2004. It also cut energy use from its North American operations by 26.6% in 1995–2005. GM's U.S. vehicle fleet has one of the lowest fuel economy averages of any major manufacturer. Combined sales weighted car and truck fleet average CO_2 emissions increased 4.9% in 1990–2004. However, on a model-to-model basis, GM leads in fuel economy in 21 of the 41 passenger car comparisons in which it competes, and in 45 of the 77 truck comparisons, based on Ward's segments for 2006 models. In the next few years, GM is applying Advanced Fuel Management on nearly two million vehicles to boost fuel economy up to an additional 8%.
Commercial Business: ***Gasoline-electric hybrids***	GM formed a partnership with DaimlerChrysler and BMW in 2005 to develop full hybrids, and plans to have 12 models with hybrid components by 2010. The Saturn VUE Green Line will launch in mid-2006, offering 20% better fuel economy than a comparable mid-size Saturn SUV. The Chevrolet Tahoe and GMC Yukon full-size SUVs will be available in mid-2007 with a new two-mode full hybrid system that is compact and scalable, offering a 25% improvement in average fuel economy. This system is based on GM's diesel-electric hybrid propulsion system for transit buses, with 377 of these buses in operation as of late 2005, including 235 in Seattle.
Fuel cells	GM has spent more than $1 billion on fuel cell research. It has developed three prototype fuel cell vehicles—the AUTOnomy, Hy-wire and Sequel (a crossover fuel cell vehicle)—and has a demonstration fleet of HydroGen3s (five-passenger vehicles based on the Opel Zafira minivan) and a full-size fuel cell pickup in the U.S. In 2005, GM and DOE announced a 5-year, $88 million agreement to build a 40-vehicle fuel cell fleet demonstrating current- and next-generation fuel cell technology. GM is working with Shell Hydrogen on a hydrogen service station in the New York City area, building on a similar partnership in the Washington, D.C., area. GM also is collaborating with BMW and Honda on on-board liquid hydrogen storage, with Suzuki on fuel cell vehicles and Toyota on fuel cell research. In addition, GM has a stationary fuel cell project with Dow Chemical at Dow's Freeport, Tex., facility.
Diesel engines	GM, including Opal, Saab and Isuzu, offers more than 25 diesel-powered vehicle models around the world and has the manufacturing capacity to build 1.9 million diesels worldwide.
Flex-fuel vehicles	GM has 1.5 million flexible fuel vehicles on the road that can burn E85 ethanol, a blend of 85% ethanol and 15% gasoline. GM recently launched a national ethanol-awareness campaign.

Honda Motor Co.

NYSE: ***HMC (ADR)***
Industry: ***Motor vehicles***

Honda's World Environment Committee sets and approves all corporate environmental policy. Honda's corporate-wide activities are aimed at a long-term goal of "zero environmental impact;" it has been a world leader in building highly efficient internal combustion engines for decades. Honda's U.S. fleet continues to have the highest fleet fuel economy standards of any major automaker. In 1999, Honda was the first company to offer a hybrid vehicle in the U.S., and in 2004 became the first to offer three distinct hybrid models. Honda is also focused on further fuel efficiency increases of internal combustion engines as well as development of fuel cell vehicles. In Japan, Honda has set a goal of a 30% reduction in CO_2 emissions per unit of production in 1990–2010; it had achieved a 23.6% reduction by 2004.

Summary Score: 62

Company Information	
	Honda Motor Co. Ltd. manufactures automobiles, motorcycles and power equipment for commercial and consumer use such as generators, tillers, snowblowers, and outboard motors. Automobile sales account for about 80% of Honda's total sales, which were $80.7 billion in fiscal 2005.
Contact Information	
CEO / President	Takeo Fukui
Contact	Tel: 81-3-3423-1111 • Web: world.Honda.com
Address	2-1-1 Minami-Aoyama, Minato-ku Tokyo, 107-8556 Japan
Board Oversight	***Score: 9***
Board Committee	World Environmental Committee
Committee Chair	Not identified.
Actions Taken	The World Environmental Committee consists of Executive Committee members and related directors and corporate officers. It is responsible for setting and approving all corporate environmental policy and conducts annual reviews of their implementation and execution, including climate change policies. Under its supervision, Honda's six Regional Environmental Committees propose and implement three-year plans to address environmental concerns, with constant monitoring for progress. Under its direction, Honda also launched a Green Factory Project in 1997, which aims to promote environmentally sound manufacturing practices, including conserving energy and reducing CO_2 emissions.
Management Execution	***Score: 13***
CEO Statement	*From December 2005 guest editorial in the Nikkei Weekly:* "Honda views efforts to minimize environmental burdens as its corporate responsibility to future generations, a point emphasized in our three-pillared management vision set out in 1998… Having already established cleaner exhaust technology, Honda is now working on ways to reduce the amount of CO_2 discharge through improved fuel efficiency… Honda is [also] working on the development of engines that run on fuel other than gasoline… Viewing fuel-cell technology as a source of force for the next generation, Honda has been working on it since the 1990s… Honda was able to cut CO_2 emission at [its domestic facilities] by 24% in [1990–2004]… Honda has decided to use its cutting-edge CO_2 reduction technologies and know-how at all of its manufacturing plants around the world. Honda understands that the automobile industry will have to pay greater attention to global warming and other environmental issues."
Chief Environmental Officer	Michiyoshi Hagino, Senior Managing Director
Levels to CEO	0
Climate Change Executive	None identified.
Executive Committee	World Environmental Committee (see Board Oversight)
Link to Executive Compensation	"Progress toward achieving set targets is monitored and rewarded accordingly" for members of the World Environmental Committee as well as EHS professionals.

Honda Motor Co.

NYSE: ***HMC (ADR)***
Industry: ***Motor vehicles***

Public Disclosure

Score: 7

Company Statement

From the 2005 North American Environmental Report:

"Climate change is among society's most important environmental concerns of the 21st century. Consumption of fossil fuels in motor vehicles and other products with internal combustion engines has increased tremendously since the Industrial Revolution… The only known means to address this issue is to reduce greenhouse gases in the atmosphere… Honda seeks to reduce CO_2 emissions generated throughout the lifecycle use of its products. Honda is strengthening its long-term commitment to reduce greenhouse gases throughout all of its business operations. Actions include:

- Further improving the fuel efficiency of automobile, motorcycle and power equipment products
- Continuing pursuit of alternative fuel energy sources, such as fuel cells
- Increasing energy efficiency in factories
- Creating more efficient transportation systems to deliver parts to factories and products to customers
- Improving energy conservation efforts at Honda offices
- Encouraging energy conservation efforts at Honda dealers, suppliers, and other business partners
- Educating Honda associates"

Securities Filings Statement

From Form 20-F:

Honda discusses fuel economy and CO_2 emission control regulations in Japan and the European Union. It does not characterize how these regulations might affect its sales volumes and profitability. In Europe, Honda is part of a voluntary industry agreement by the Japanese Automobile Manufacturers Association (JAMA) to reduce average CO_2 emissions from new vehicles by 25% between 1995 and 2009. In 2003, JAMA achieved a midterm target of 165–175 grams of CO_2/km; the 2009 goal is 140 grams of CO_2/km.

Environmental/Sustainability Report

Honda Environmental Annual Report & 2005 North American Environmental Report

GRI Report

None identified.

Carbon Disclosure Project

Answered questionnaire, but declined public disclosure because of concerns regarding "confidential information."

Emissions Accounting

Score: 13

Savings Calculated by Company

Amount: 23.6% reduction in CO_2 emissions per unit of production
Scope: Entity-level (Japan) ***Time frame:*** 1990–2004

In 2003, Honda's CO_2 emissions from manufacturing facilities in Japan were 22.3 tonnes of CO_2 per ¥100 million of production. Reductions since 1990 have been achieved mainly through energy conservation, increased cogeneration, efficiencies in assembly and welding and greater use of waste heat.

GHG Emissions Inventory

2004 Amount: 1,649,000 (short) tons of CO_2 ***Region:*** Global
2001 Amount: 1,289,000 (short) tons of CO_2 ***Region:*** Global

Data for 2004 includes emissions from 43 companies worldwide, including Honda Motor and affiliates in which Honda Motor holds at least a 50% share. Data for 2001 includes emissions from 36 companies worldwide, similarly measured.

2004 Amount: 467,600 (metric) tonnes of CO_2 ***Region:*** Japan
1990 Amount: 615,600 (metric) tonnes of CO_2 ***Region:*** Japan

Third Party Vertification

Honda registers its GHG emissions in Canada with the Canadian Standards Association.

Reporting Protocol

None identified.

Honda Motor Co.

NYSE: ***HMC (ADR)***
Industry: ***Motor vehicles***

Strategic Planning	***Score: 20***
Emissions Targets	***Baseline year:*** 1990 ***Target year:*** 2010 ***Region:*** Japan (intensity rate) ***Amount:*** 30% decrease – CO_2 tons/¥100 million of production from manufacturing facilities Honda achieved a 23.6% reduction in this emissions rate as of 2004. ***Baseline year:*** 1995 ***Target year:*** 2009 ***Region:*** Europe (intensity rate) ***Amount:*** 25% decrease–fleet emissions per vehicle
GHG Emissions Trading	None identified.
Green Power	Honda is building a ¥10-billion (US$86.5 million) factory to begin mass production in fiscal 2007 of solar cells made from an inexpensive thin-membrane non-silicon metal compound developed by Honda engineering. The Honda solar panels, first announced in 2002, feature a light-absorbing layer formed by a compound made of copper, indium, gallium and diselenium (CIGS). The new plant will have an annual capacity to produce about 30 megawatts worth of solar cells, initially for sale in Japan only. Eventually, Honda intends to expand to overseas markets, mainly in North America and Europe. Honda is also developing and operating in its California facility a system that would use solar cells to power a home electrolysis unit for the production of hydrogen for vehicle refueling. In addition, Honda is developing and operating prototype home hydrogen energy systems that rely on natural gas reforming.
Energy Efficiency	Honda is targeting a 30% reduction from 1990-2010 in energy consumption per unit of production at five factories in Japan; energy consumption per unit had decreased nearly 24% by 2004. Honda is a world leader in producing fuel economical cars. In Japan, Honda attained 2010 fuel efficiency standards in six of seven vehicle weight categories by 2003. Honda's average fuel economy for gasoline-powered vehicles in Japan improved by approximately 35% from 1995-2003. Honda has been a leader in offering cars with lean-burn engines and variable valve timing. Its new "dual and sequential ignition" system engine without electric assist, equipped with two ignition plugs, enables its subcompact car, the Fit, to get 55 mpg with very low exhaust emissions. (This vehicle is not sold in the U.S.). In 2004, Honda applied its new Variable Cylinder Management system, which allows the vehicle's engine to operate on three cylinders at highway speeds, on its V6 Accord Hybrid and a new Odyssey minivan. In 2005, this system is also applied to its Pilot SUV.
Commercial Business: ***Gasoline-electric hybrids***	Honda offers gasoline-electric hybrid systems featuring its IMA "Integrated Motor Assist" (where an electric motor assists the engine but cannot power the vehicle on its own). Honda introduced its first hybrid—the two-passenger Insight—in the United States in 1999, which is rated as America's most fuel-efficient car. In 2002, Honda introduced the Civic Hybrid, a five-passenger vehicle, and in 2004 introduced a hybrid version of its best selling passenger car—the Accord V-6, a mid-size, 5-passenger sedan. Honda sells more than 40,000 hybrids a year in the U.S. and has sold more than 120,000 hybrid vehicles worldwide since 1999. Honda also has developed a hybrid 50cc scooter combining an electric motor with a gasoline engine that is nearing the market launch stage.
Diesel engines	In 2003, Honda introduced its first diesel engine to be fully developed and built in-house. In Europe, it is being used to power Accord passenger cars and CRV sport utility vehicles.
Natural gas	Honda has been selling a dedicated natural gas vehicle—the Civic GX—since 1997; it sold 81 in 2004 in Japan and 526 in the U.S. In 2004, Honda purchased a 20% interest in FuelMaker Corp., a privately held Canadian company and a leading manufacturer of natural gas vehicle refueling appliances.
Fuel cells	Honda says that its fuel cell vehicle, the FCX, is the only fuel cell vehicle to be certified by the U.S. Environmental Protection Agency and California Air Resources Board, and is the only fuel cell vehicle in regular daily operation with multiple customers in the U.S. and Japan. Honda has leased 19 FCX fuel cell vehicles in those two countries. In 2005, Honda began operation of its third generation Home Energy Station III, which can generate hydrogen from natural gas, supply hydrogen to fuel cell vehicles, and supply both heat and electricity for the home.
Electric	Honda has developed an electric commuter-style scooter with superior heat dissipation and longer battery life as part of its work on next-generation motorcycle power sources from the perspective of reducing emissions and lowering the effect of global warming.

Nissan Motor Co Ltd.

NASDAQ : ***NSANY (ADR)***
Industry: ***Motor vehicles***

Nissan is developing a global strategy for CO_2 management under the direction of its Global Environmental Management Committee. It regards global warming as its most serious environmental issue, and believes it will be a challenge to reduce CO_2 emissions as production volumes rise. Nissan began taking inventories of CO_2 emissions from its global operations in 2003, and is streamlining its manufacturing and logistical operations to reduce energy costs and CO_2 emissions. For its vehicles, Nissan is concentrating in the short term on introducing more fuel-savings technologies, especially continuously variable transmission (CVT) transmissions. Between fiscal years 2004 and 2007, Nissan plans to quadruple production of CVT-fitted models to around 1 million worldwide, which it says will have the same effect in reducing CO_2 emissions as selling 200,000 hybrid electric vehicles. Nissan plans to launch its first hybrid model in late 2006. Longer term, Nissan is focused on making strategic investments in the development of fuel cell vehicles. *The company declined to comment on this profile.*

Summary Score: 33

Company Information	
	Nissan Motor is Japan's second largest automobile producer. It manufactures and sells automobiles and automobile parts. The company has automobile manufacturing and assembly plants in 17 countries, and is also involved in financing, leasing and the manufacture of marine products. It had sales of $70.1 billion in 2004.

Contact Information	
CEO / Chairman	Carlos Ghosn / Itaru Koeda
Contact	Tel: 81-3-3543-5523 • Web: www.nissan-global.com
Address	17-1, Ginza 6-chome, Chuo-ku Tokyo, 104-8023 Japan

Board Oversight	***Score: 6***
Board Committee	Global Environmental Management Committee
Committee Chair	Toshiyuki Shiga, Chief Operating Officer and co-chairman of the board of directors
Actions Taken	Nissan is developing a global strategy for CO_2 management under the direction of its Global Environmental Management Committee. The committee consists of corporate officers involved in Nissan's business operations, logistics and vehicle engineering and production, some of whom also serve on the board of directors.

Management Execution	***Score: 5***
CEO Statement	*From 2005 Sustainability Report:* "Our concern for the environment is not just about creating cleaner products, but making a cleaner world. How to deal with carbon dioxide emissions is an important, pervasive theme for Nissan… In the environmental field, our strategy is backed by investments and ongoing research in various technologies. For example, we have designed and developed our first in-house fuel cell stack and a new high-pressure hydrogen storage system, which can significantly improve the performance required of fuel cell vehicles… We are continuing our efforts to improve diesel and internal combustion gasoline engines. We are also exploring the development of biofuels, such as the flex-fuel engines used in the Brazilian market, which run on ethanol or gasoline or any combination of both. In 2006, Nissan will launch the Altima Hybrid in the United States market… The introduction of hybrid technology in one of our best-selling models is a significant development."
Chief Environmental Officer	Toshiyuki Shiga
Levels to CEO	0
Climate Change Executive	Toshiyuki Shiga
Executive Committee	Global Environment Management Committee. (See Board Oversight).
Link to Executive Compensation	None identified.

Nissan Motor Co Ltd.

NASDAQ : ***NSANY (ADR)***
Industry: ***Motor vehicles***

Public Disclosure

Score: 4

Company Statement

From 2005 Sustainability Report:

"Nissan regards carbon dioxide (CO_2) emissions management to be one of the most pressing challenges we face today. In connection with the continuous growth we are experiencing in our production volume, the key challenge is how we can best approach this issue on a global scale and with a long-term perspective. To this end, we make a concerted effort to reduce emissions of CO_2 in each of our business operations, including planning, engineering, production, and logistics. In production, for example, by implementing energy-saving measures such as replacing older equipment with newer, more efficient equipment, we are able to manufacture various models on single integrated lines… In logistics too, we promote an energy-efficient "modal shift", which means whenever possible we are moving away from conventional truck transport toward the use of railroads and ships, as these generate lower CO_2 emissions…

"At Nissan, we take a comprehensive approach to CO_2 reduction [in vehicles] by developing highly efficient engines, continuously variable transmissions (CVTs), electric-powered 4WDs, lightweight vehicle bodies as well as more aerodynamic design with low air resistance… [W]e will launch the Altima Hybrid in the U.S. market, starting late 2006"

Securities Filings Statement: None identified.

Company Report: *Nissan Sustainability Report 2005*

GRI Report: *Nissan Environmental Report 2004* references the GRI guidelines.

Carbon Disclosure Project: Partially answered questionnaire.

Emissions Accounting

Score: 10

Savings Calculated by Company

Amount: 43% reduction in annual CO_2e emissions ***Scope:*** Entity-level (Japan)
Time frame: 1990–2003

Nissan does not provide absolute figures to correlate with this reduction in production emissions. It says the savings were achieved in part through installation of new cogeneration systems and by eliminating energy loss from energy-using equipment.

Amount: 25% reduction in CO2e emission rates from production
Region: Global (intensity rate) ***Time frame:*** 1999–2003

GHG Emissions Inventory

2003 Amount: 2,215,000 tons of CO_2e ***Region:*** Global

2003 Amount: 1,306,000 tons of CO_2e ***Region:*** Japan

1990 Amount: 1,284,000 tons of CO_2e ***Region:*** Japan

The inventory figures for 2003 include data from consolidated subsidiaries, but are not considered a comprehensive company inventory. Inventory figures for 1990 represent Nissan Motor Co. Ltd. only.

Third Party Vertification: None identified.

Reporting Protocol: None identified.

Strategic Planning

Score: 8

Emissions Targets

Baseline year: 1999 ***Target year:*** 2005 ***Region:*** Global
Amount: >10% decrease in CO_2 emissions from production

Nissan's goal is to reduce CO_2 emissions from manufacturing and logistics operations by more than 10% in FY 1999–FY 2005. Nissan is working toward true Douki-Seisan—a build-to-order system schedule that is synchronized with the customer's needs. The streamlining and efficiency attained through this system promotes CO_2 reductions. For logistics, Nissan is shifting from the use of trucks and trailers to railroad and marine systems as a means of increasing energy efficiency and reducing CO_2 emissions.

Baseline year: 1999 ***Target year:*** 2005 ***Region:*** U.K. (intensity rate)
Amount: 22% decrease in CO_2 emissions rate from production

In 2004, vehicles manufactured in the U.K. emitted 0.37 tons of CO_2 per vehicle during production.

GHG Emissions Trading: None identified.

Strategic Planning	*(continued)*
Green Power	Nissan plans to install its first wind farm at a manufacturing plant in the U.K. Seven 750 kW turbines will cover 7% of electrical demand on the site and reduce CO_2 emissions by approximately 10,000 tons per year.
Energy Efficiency	Nissan created the Nissan Energy Service Co. to promote energy efficiency throughout its operations. In 2004, Nissan's goal was to reduce total energy and utilities usage for U.S. production facilities by 3%. Regarding vehicles, Nissan's North American auto line has lower fuel economy ratings than the ratings for Honda and Toyota's model lines. To improve fuel efficiency, Nissan is developing highly efficient engines, continuously variable transmissions (CVTs), electric-powered 4WDs (e-4WDs), lightweight vehicle bodies as well as more aerodynamic design with low air resistance.
Commercial Business: ***Continuously Variable Transmissions***	Nissan first introduced continuously variable transmission (CVT) to its passenger vehicle range in 1992 and is the only manufacturer to offer a full CVT lineup for small, medium and large class passenger vehicles. Nissan plans to increase sales of CVT-fitted models from 250,000 in fiscal year 2004 to around 1 million worldwide by fiscal year 2007, equal to nearly one quarter of its global sales volume. In Japan and the U.S., respectively, sales of CVT-fitted models could reach 50% and 40% of total sales in those markets. Nissan estimates that if it meets this 2007 goal, it would have the same effect in terms of reducing CO_2 emissions as selling 200,000 hybrid electric vehicles.
Hybrid vehicles	the United States in late 2006. Nissan says this hybrid model will achieve the acceleration performance of V6 engines with a fuel efficiency that is higher than compact cars. Nissan will license technology from Toyota for this model.
Fuel cell vehicles	Nissan embarked on fuel cell vehicle (FCV) development in 1996. It began limited leasing sales of its X-TRAIL FCV model in 2003 in Japan. Nissan delivered the first X-TRAIL FCV to Cosmo Oil Co., Ltd., in 2004 and currently carries out joint research and development on the use and supply of hydrogen. In 2005, Nissan announced the development of its first in-house fuel cell stack and high-pressure hydrogen storage system. The 2005 model of the X-Trail FCV employs these two technologies.

Toyota Motor Corp.

NYSE : ***TM (ADR)***
Industry: ***Motor vehicles***

Toyota formed a company-wide Global Warming Prevention Council in 1998 to meet the CO_2 emission targets set by the Kyoto Protocol. It has set a goal to reduce its emissions from its facilities by 20% on a sales-weighted basis in 2001–2010. (It had achieved a 12% reduction by 2004.) Toyota says it wants to be proactive on global warming by deploying the most advanced environmental technologies. It is the world's leading developer of gasoline-electric full hybrid vehicles; it plans to have hybrid versions available across all of its model lines by 2010. It is also pursuing other fuel efficiency improvements, fuel cell vehicles and vehicles that run on biomass fuels. It is part of voluntary industry agreements in Europe and Canada to reduce CO_2 emissions from new vehicles; however, it opposes U.S. legislation to institute mandatory controls on these emissions, warning that it could restrict its U.S. sales and product offerings. *The company declined to comment on this profile.*

Summary Score: 65

Company Information	
	Toyota is on the verge of becoming the world's largest automaker. The company offers a full range of models, from mini-vehicles to large trucks. In addition to 12 plants and 11 manufacturing subsidiaries and affiliates that Toyota owns in Japan, it has 51 manufacturing companies in 26 countries/locations that produce Lexus- and Toyota-brand vehicles and components. Toyota had $173 billion in sales in fiscal 2005.
Contact Information	
CEO / President	Katsuaki Watanabe / Hiroshi Okuda
Contact	Tel: 81-565-28-2121 • Web: www.toyota.co.jp
Address	1, Toyota-cho Toyota City Aichi Prefecture, 471-8571 Japan
Board Oversight	***Score: 9***
Board Committee	Toyota Environment Committee
Committee Chair	Katsuaki Watanabe, President, Toyota Motor
Actions Taken	The Toyota Environment Committee discussed CO_2 emissions at a meeting held in fiscal 2004.
Management Execution	***Score: 14***
CEO Statement	*From then-President Fujio Cho in the 2004 Toyota North America Environmental Performance Report:* "I like to think of it as enlightened self-interest. If automakers don't reduce smog-forming emissions, greenhouse gases and the need for petroleum, we won't be in business."
Chief Environmental Officer	Takeshi Uchiyamada, Executive Vice President
Levels to CEO	0
Climate Change Executive	None identified. Toyota North America has three company representatives who serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Global Warming Prevention Council Formed in 1998, this council is made up of 25 Toyota group companies and affiliates to meet CO_2 emission targets set by the Kyoto Protocol. Toyota announced its Fourth Toyota Environmental Action Plan (for fiscal 2006-2010) in May 2005. The plan identified "energy/global warming" as the first of four main topics. The plan is a statement of the activities that Toyota believes it must undertake in order to realize its corporate objective as a leader and driving force in global regeneration through deployment of the most advanced environmental technologies.
Link to Executive Compensation	None identified.

Toyota Motor Corp.

NYSE : ***TM (ADR)***
Industry: ***Motor vehicles***

Public Disclosure

Score: 10

Company Statement

From 2004 annual report:

"Today, our society faces a number of environmental problems that need to be addressed urgently. In particular, if we wait until the adverse effects of global warming have become a reality, it will already be too late to take countermeasures. In other words, we have to anticipate problems before they arise and actively take preemptive steps. Needless to say, such forward-looking action is a must for automakers, given the close relationship between the automobile industry and environmental issues. That is why Toyota will go on emphasizing 'proactivity' in its responses to society's environmental needs."

Securities Filings Statement

Excerpt from Form 20F:

In its Form 20-F, Toyota discusses fuel economy and CO_2 emission control regulations in Japan and the European Union, and proposed regulations in the United States. Toyota reports it is part of the Alliance of Automotive Manufacturers that has filed a lawsuit against proposed CO_2 emission regulations in California. It also says that actions to restrict these emissions from motor vehicles "would be costly to Toyota and could significantly restrict the products it is able to offer in the United States." In Europe, Toyota is part of a voluntary industry agreement by the Japanese Automobile Manufacturers Association (JAMA) to reduce average CO_2 emissions from new vehicles by 25% between 1995 and 2009. In 2003, JAMA achieved a mid-term target of 165–175 grams of CO_2/km; the 2009 goal is 140 grams of CO_2/km.

Company Report

Toyota Environmental & Social Report 2005

GRI Report

Toyota Motor Europe produced a report based on GRI reporting Guidelines in 2003.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 14

Savings Calculated by Company

Amount: 13,972 tonnes of CO_2 ***Scope:*** U.S. (project level) ***Time frame:*** 2002

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program.

Amount: 11.9% cut in CO_2 emissions per unit of production
Region: Global (intensity rate) ***Time frame:*** 2001–2004

In 2004, emissions from global manufacturing facilities were 37 tonnes of CO_2 per ¥100 million of production, compared with 42 tonnes of CO_2/ ¥100 million of production in 2001.

GHG Emissions Inventory

2004 Amount: 5,840,000 tonnes of CO_2 ***Region:*** Global
2000 Amount: 5,540,000 tonnes of CO_2 ***Region:*** Global

2004 Amount: 1,540,000 tonnes of CO_2 ***Region:*** Japan (Toyota Motor)
1990 Amount: 1,950,000 tonnes of CO_2 ***Region:*** Japan (Toyota Motor)

Third Party Verification

No.

Reporting Protocol

None identified.

Strategic Planning

Score: 18

Emissions Targets

Baseline year: 2001 ***Target year:*** 2010 ***Region:*** Global (intensity rate)
Amount: 20% decrease–CO_2 tons/sales unit of production from manufacturing facilities

Toyota had achieved an 11.9% reduction in this emissions rate as of 2004. Toyota is working to reduce GHG emissions from its plants through productivity improvements, introduction of new technologies and simultaneous engineering, efficiency improvements from logistics and modal shifts.

Baseline year: Unclear ***Target year:*** 2005 ***Region:*** Japan (Toyota Motor)
Amount: less than 1,800,000 tonnes of absolute emissions

This target encompasses all Toyota Motor operations in Japan, including corporate offices. In 2004, Toyota's 10 vehicle assembly plants in Japan emitted 1.54 million tonnes of CO_2.

Baseline year: 1995 ***Target year:*** 2009 ***Region:*** Europe (intensity rate)
Amount: 25% decrease–fleet emissions per vehicle

See Securities Filings Statement, above.

GHG Emissions Trading

None identified.

Toyota Motor Corp.

NYSE : ***TM (ADR)***
Industry: ***Motor vehicles***

Strategic Planning	*(continued)*
Green Power	None identified.
Energy Efficiency	Toyota achieved nearly a 12% reduction in CO_2 emissions per unit of production at its global facilities in 2001–2004, largely through energy efficiency improvements. Toyota's ECO project, launched in 1996, has spurred production of several fuel-saving technologies, such as lean-burn engines, variable-valve timing, and direct-injection gasoline and diesel engines. Emphasis now is on system controls, such as computer control of fuel injection, gear shifting and regenerative braking. In Japan, Toyota attained 2010 fuel efficiency standards in six of seven vehicle weight categories in Japan by 2003; its goal was to achieve standards for all seven categories by 2005.
Commercial Business: ***Gasoline-electric hybrids***	Toyota is the world's leading developer of hybrid vehicles; it plans to have hybrid versions available across all of its model lines by 2010. It expects to sell 300,000 hybrids annually by mid-decade and 1 million annually by early next decade. It reached a cumulative total of 360,000 hybrids sold in March 2005. Toyota introduced its first hybrid commercial vehicle—the Prius sedan—in Japan in 1997 and began selling it in the U.S. in 2000. Toyota began selling two more hybrid models in the U.S. in March 2005—the Highlander and the Lexus RX 400h midsize SUVs, with hybrid versions accounting for more than one-quarter or more of U.S. sales of these models since then. Toyota plans to introduce two more hybrid models in the 2007 model year—the Lexus 450h and a hybrid version of its best-selling Camry sedan, which will be assembled in the United States. Toyota emphasizes that its work on hybrids will be transferable to its ongoing development of fuel cell vehicles.
Fuel cells	Toyota's primary fuel cell hybrid vehicle (FCHV) for testing purposes is based on the Toyota Highlander SUV platform; it had more than 16 on the road in the U.S. and Japan in 2004. Toyota also is co-developing the FCHV-BUS2 with Hino Motors, Ltd.; the MOVE FCV-K-II, a compact fuel cell system for minicars, with Daihatsu Motor Co., Ltd.; and a residential fuel cell cogeneration system that runs on natural gas with Aisin Seiki Co., Ltd. The FCHV-BUS2 began operation on two routes in Tokyo in 2003.
Clean diesel	In 2003, Toyota incorporated its DPNR (Diesel Particulate NOx Reduction) system, which is maintenance-free, to its new Avensis models sold in Europe. The DPNR realizes initial reductions of 80% in particulate matter and 50% in NOx diesel engine exhaust fumes.
Other	Toyota has R&D alliances with GM for development of advanced environmental technologies, and with ExxonMobil for development of fuels compatible with future power sources. It is a corporate contributor to the Global Climate and Energy Program at Stanford University. Additional initiatives include biotechnology and afforestation businesses.

Volkswagen AG

German Stock Exchange: ***VLKAY***

Industry: ***Motor vehicles***

Volkswagen has established a Climate Strategy Working Group to coordinate group-wide efforts to control greenhouse gas emissions and develop new technologies. Volkswagen has been tracking its emissions at German sites since 1996, and worldwide since 2001; it has not set any future emission reduction targets. As the world's largest manufacturer of diesel-powered light duty vehicles, Volkswagen has made its short-term goal to further optimize and distribute this fuel-efficient technology. By 2008, it expects to introduce a gasoline-electric hybrid vehicle model in the United States, and another one in China. Volkswagen is also investing in the development of biodiesel fuels, which are essentially carbon neutral, as well other synthetic fuels. Volkswagen presumes that hydrogen will play an important role in the long term and has intensive research activities on fuel cell engines and hydrogen infrastructure.

Summary Score: 37

Company Information	
	Volkswagen is one of the world's largest automobile manufacturers, and the largest manufacturer of diesel passenger vehicles and light trucks. It operates in Europe, North and South America, Asia and Africa. Volkswagen produces motor vehicles under the brand names Volkswagen, Skoda, Bentley, Bugatti, Audi, Seat and Lamborghini. It had sales of $121.3 billion in 2004.
Contact Information	
Chairman of Board of Management	Dr. B. Pischetsrieder
Chairman of Supervisory Board	Dr. F. K. Piëch
Contact	Tel: +49(0)5361 9-0 • Web: www.volkswagen-ag.de
Address	Brieffach 1880 38436 Wolfsburg Germany
Board Oversight	***Score: 4***
Board Committee	Product Committee
Committee Chair	Dr. B. Pischetsrieder, Chairman of the Board of Management
Actions Taken	The board regularly reviews CO_2-strategies related to product technology and production processes. It also reviews the company's participation in industry agreements to reduce CO_2 and fuel consumption.
Management Execution	***Score: 9***
CEO Statement	*Excerpt from July 2005 letter to G8 Roundtable from 23 CEOs, including Pischetsrieder:* "Business and governments can—and must—work together on climate change mitigation… [W]e can identify and implement policy measures that will create meaningful and effective solutions, while at the same time ensuring long-term value for shareholders. With properly designed programs and incentives, we can unleash the power of the market to accelerate the deployment of low carbon technologies, engaging both producers and consumers alike. And with the right kind of focus on both the needs and aspirations of emerging markets, we can ensure that a truly global solution to the problem is achieved."
Chief Environmental Officer	Dr. B. Pischetsrieder
Levels to CEO	0
Climate Change Executives	R. Kopp, Plenipotentiary of Volkswagen AG, Volkswagen Group; and Dr. R. Krebs, Head of Powertrain Development, Volkswagen Brand
Executive Committee	Climate Strategy Working Group This working group oversees the VW Group's strategies for all climate change related issues. It consists of members of all relevant departments, such as financial, research, technical development, strategy, production and power production departments, as well as Audi, Seat and Skoda.
Link to Executive Compensation	Executive compensation takes into account adherence to the Volkswagen Core Value of "Sustainability."

Volkswagen AG

German Stock Exchange: ***VLKAY***
Industry: ***Motor vehicles***

Public Disclosure

Score: 7

Company Statement

From Volkswagen Group Sustainability Report 2005/2006—Moving Generations:

"Climate change is doubtless the greatest environmental challenge of our day and age. Scientists tell us that emissions of [GHGs] from the use of fossil fuels are a contributory factor. If concentrations continue to increase, the forecasts assume that global warming will ensue, coupled with an increase in extreme weather conditions such as hurricanes and flooding. Despite all the residual uncertainties in these prognoses, we believe that the situation nevertheless calls for a reduction in anthropogenic emissions of [GHGs] or at least measures to prevent a further rise, in line with the principle of due preventive care."

Securities Filings Statement

From Management Discussion & Analysis:

"From 2005 onwards, power plants and heating systems at our European production sites will be subject to the single market regulations governing trade in emission certificates. The power plants will initially be allotted certificates based on their emissions in past years. With combined heat and power, we are using the optimum energy technology at the present time with the lowest emission levels. As the regulations aim to further reduce emissions, the allocation originally applied for will be successively reduced by the responsible EU agency. Thus, from 2005 onwards, it will probably be necessary to buy extra certificates to make up for the shortfall. The market price of these certificates is currently around 7 per ton of carbon dioxide. The future price trend is unclear."

Company Report

Volkswagen Group Sustainability Report 2005/2006—Moving Generations

GRI Report

See above.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 9

Savings Calculated by Company

None identified.

GHG Emissions Inventory

2004 Amount: 1.32 million tonnes of CO_2e ***Region:*** Global (VW Group)
2001 Amount: 1.19 million tonnes of CO_2e ***Region:*** Global (VW Group)

These inventory figures reflect direct emissions from the VW Group only. Emissions figures are available since 1996 for German sites.

Third Party Vertification

Yes. Almost all of the company's production plants worldwide are audited in accordance with "ISO 14001" and/or the EC Eco-Audit Regulation "EMAS" or are preparing for external audits by the end of 2006. Further in-depth certifications are conducted regularly for power installations that are part of the European Emissions Trading System.

Reporting Protocol

GHG Protocol, as adapted by Volkswagen. Volkswagen was involved in early discussions of the GHG Protocol, which influenced the revision of an international group-wide standard for acquiring environmental data. Volkswagen also contributed to setting up a guideline for reporting indirect CO_2-emissions by the VDA (German Car Manufacturers' Association).

Strategic Planning

Score: 8

Emissions Targets

Baseline year: 1995 ***Target year:*** 2008 ***Region:*** Europe
Amount: 25% decrease in CO_2/km–fleet emissions per vehicle

In Europe, Volkswagen is part of a voluntary industry agreement to cut average fuel consumption and CO_2 emissions from new cars by 25% in 1995–2008. In Germany, Volkswagen was part of a similar voluntary industry agreement to increase the average fuel economy of new cars by 25% in 1990-2005. Volkswagen reports that the industry has met this goal.

GHG Emissions Trading

Voluntary programs—Volkswagen is conducting internal trading of emission allowances as necessary and anticipates that additional trading with external partners will involve relatively small volumes.

Government programs—Volkswagen participates in the E.U. Emissions Trading Scheme for its major power and heat production installations in Europe. It is a member of the Federal Department of Environment's taskforce to establish and improve the trading system in Germany. One of its major installations proved its "extraordinary high efficiency" recently when being accepted as an "early action installation" by the German Environmental Agency in connection with setting up the E.U. trading system.

Strategic Planning	*(continued)*
Green Power	About 12% of the electricity delivered by Volkswagen Kraftwerk GmbH is from renewable sources. Additionally, the heating system of the test area in Ehra-Lessin is based on wood combustion.
Energy Efficiency	Volkswagen Group has an "Energy" working group that helps to identify potential savings, develop energy efficiency optimization measures and implement group-wide strategies. Energy consumption has remained relatively stable in recent years, while production increased substantially. Most energy use comes from the high-efficiency cogeneration plants and refrigeration plants. Volkswagen Group also is focusing on driver training programs to promote a fuel-saving style of driving.
Commercial Business: ***Diesel engines***	Volkswagen is the world's largest manufacturer of diesel passenger vehicles and light trucks. Diesel engines emit less CO_2 than comparable gasoline-fueled engines. Volkswagen believes that further optimizing and distributing efficient diesel technology will yield the largest CO_2 emission savings in the near term. Technologies associated with diesel engines such as direct fuel injection and turbocharging also are being applied to gasoline engines to achieve substantial fuel savings. Volkswagen also is developing a dual-clutch gearbox that cuts down on fuel consumption.
Hybrid drivetrains	In the medium term, Volkswagen believes that alternative drivetrains and fuels will achieve further CO_2 emission reductions. The company is developing the Audi Q7—the company's first gasoline-electric hybrid vehicle—which will be introduced in the U.S. in 2008. Another petrol/electric hybrid vehicle is being developed in China, as a joint project between Shanghai Volkswagen and Tongij University in Shanghai. It will be sold commercially, in time for the 2008 Olympic games. In 2007, Volkswagen plans to introduce the prototype of a Combined Combustion System (CCS), which combines the advantages of diesel and petrol engines and can use synthetic fuels.
Alternative fuels	Volkswagen is working on advanced biofuels that can be produced from any kind of biomass, including straw or scrub, to create a largely carbon-neutral fuel source. It is cooperating with CHOREN Industries on the development of SunFuel biodiesel. A pilot installation has been built in Freiberg, Lower Saxony. Volkswagen also is working with Shell and IOGEN Inc. to study the feasibility of producing cellulose ethanol in Germany. Also in cooperation with Shell, Volkswagen is developing SynFuel, using a gas-to-liquid process. Volkswagen is extending its EcoFuel natural gas powertrains and beginning in 2006 will offer liquefied gas (LPG) vehicles in China, particularly for use in taxis. In Brazil, all new Volkswagen vehicles have flex-fuel powertrains that enable them to use both gasoline and ethanol.
Fuel cells	Volkswagen introduced the Touran HyMotion fuel cell drive vehicle, its second-generation fuel cell concept vehicle, in 2004. Volkswagen estimates mass production of fuel cell vehicles will take at least another 15–20 years.

Corporate Governance Profiles

Industrial Equipment

ABB Ltd.

NYSE: ***ABB (ADR)***
Industry: ***Industrial equipment***

ABB regards climate change as an opportunity as well a challenge to provide customers with emissions-reducing products. It is a major producer of energy-efficient combined heat and power systems and distributed energy systems. Its Environmental Product Declarations provide lifetime emissions information on more than 50 of its products, including motors, drives, transformers and circuit breakers. ABB has set a goal to reduce its own CO_2 emissions by 1% a year in 2000–2005. It is exploring ways to become a "carbon neutral" company by creating emission-reduction projects with customers to offset its remaining emissions. ABB's sustainability group, with approximately 450 members worldwide, is overseen by a member of the Executive Committee. ABB publishes an annual sustainability report.

Summary Score: 54

Company Information

ABB is a global company involved in power and automation technologies for utility, industrial and commercial customers. ABB's power technologies provides equipment and services for transmission, distribution, and automation; its automation technologies provides equipment used to monitor and control processes in plants and utilities. It had sales of $20.7 billion in 2004.

Contact Information

CEO / Chairman	Juergen Dormann
Chairman of Supervisory Board	Hilmar Kopper
Contact	Tel: 4101-317-7111 • Web: www.abb.com
Address	44 Affolternstrasse Zurich, CH-8050 Switzerland

Board Oversight

Score: 4

Board Committee	A member of the Executive Committee oversees ABB's Sustainability Group.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 10

Chairman Statement	*From 2004 Sustainability Review:* "One of the main challenges that society faces today is climate change. ABB has a role to play throughout our value chain—our research and development work, our products themselves, our manufacturing centers throughout the world, and through our business relationships with suppliers and customers. We have the technology to make a difference."
Chief Environmental Officer	Curt Henricson, Sustainability Affairs
Levels to CEO	1
Climate Change Executive	None identified. David Onuscheck, Vice President of Legal Affairs, serves as the company representative for the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Sustainability Group. The Sustainability Group oversees the work of sustainability officers in 45 countries and 475 sites, which are being certified according to the Environmental Management Standard of the ISO 14001 program.
Link to Executive Compensation	None identified.

ABB Ltd.

NYSE: ***ABB (ADR)***
Industry: ***Industrial equipment***

Public Disclosure

Score: 7

Company Statement

From 2004 Sustainability Review:

"Climate change is one of the biggest issues we all face… ABB's products, systems and solutions are designed to have the lowest possible environmental impact, as we press ahead with our goals of helping our customers strengthen power grids and improve industrial efficiency. At the same time, we work closely with suppliers and customers to ensure they demonstrate the same commitment.

"We began an investigation in 2004 on the possibility of becoming a 'carbon-neutral' company in the medium term. We produce about 1.5 million tons of CO_2 emissions annually, which is relatively low for an industrial company. As well as planning for the future, we are involved in ongoing efforts to reduce carbon emissions, as well as other harmful substances."

"The implementation of the Kyoto Protocol and the start of carbon trading in the European Union in 2005 are setting new parameters for many of our key customers, and they also mean that carbon emissions now have a financial value. Coupled with this, new regulations and increased energy costs have led to growing awareness of the need for energy efficiency. ABB is optimizing energy efficiency with a wide variety of products and solutions in our own businesses."

The statement goes on to describe the company's steps toward becoming a carbon-neutral company, and provides examples of how its products can help customers reduce their GHG emissions.

Securities Filings Statement: None identified.

Company Report: *ABB Annual Report 2004 Sustainability Review*

GRI Report: See above (in accordance).

Carbon Disclosure Project: Not queried.

Emissions Accounting

Score: 13

Savings Calculated by Company

Amount: 230,000 tonnes of CO_2 annually ***Scope:*** Project level

ABB is providing power to the first offshore platform in the world to receive direct current (DC) electricity originating on land. For the Troll A platform in the North Sea, ABB has deployed two key technologies—HVDC Light (High Voltage Direct Current) and the VHV Motor (Very High Voltage)—as well as other solutions to bring clean power from the Norwegian mainland, to power two 40-megawatt compressors. Transmitting power from shore to platform (a distance of 45 miles) eliminates the use of offshore diesel generators and annual emissions of some 230,000 tonnes of CO_2 and 230 tons of NOx.

GHG Emissions Inventory

2004 Amount: 1,427,000 tonnes of CO_2 equivalent ***Region:*** Global
2001 Amount: 1,411,000 tonnes of CO_2 equivalent ***Region:*** Global

The 2004 inventory includes 824,000 tonnes of CO_2 emissions from direct and indirect use of energy (including estimates of personal energy use by 22% of ABB employees), 253,000 tonnes of CO_2e from sulfur hexafluoride emissions and 350,000 tonnes of estimated CO_2 emissions from fleet transport emissions. The 2001 inventory did not include fleet transport emissions or employee energy use.

Product Footprint: On its website, ABB makes environmental product declarations on more than 50 drives, motors, circuit breakers and transformers. Each product declaration contains about four pages of information on the product's environmental footprint, including GHG emissions from manufacturing and product use. Emissions are expressed in kilograms of CO_2 per kilowatt-hour, and as percentage of lifetime emissions resulting from product use.

Third Party Verification: No. However, the company says it is working toward this process as part of its commitment to become a carbon-neutral company.

Reporting Protocol: GHG Protocol

ABB Ltd.

NYSE: ***ABB (ADR)***
Industry: ***Industrial equipment***

Strategic Planning		***Score: 20***
Emissions Targets	***Baseline year:*** 1999 ***Target year:*** 2005 ***Region:*** Global ***Amount:*** 1% decrease in total CO_2 emissions ABB participates in the World Energy Council's GHG reduction program, in which the company is committed to reduce its CO_2 emissions by 1% annually in 2000–2005.
GHG Emissions Trading	***Voluntary programs***—ABB has built power plants in Costa Rica through a mutually beneficial climate improvement project as part of a Norwegian consortium. The project could avoid an estimated 4 million tonnes of CO_2 emissions over a 20-year period. Any CO_2 credits earned by Costa Rica could then be sold to Norwegian companies or other buyers. ABB also participates in an Activities Implemented Jointly (AIJ) reforestation and forest conservation project in Costa Rica that will sequester an estimated net 230,800 tonnes of carbon over its 25-year lifetime. ***Government programs***—None identified.
Green Power	Where available, ABB intends to increase the amount of "green energy" it buys. ABB says about 50% of its manufacturing sites currently purchase some form of "green energy." ABB provides vital components for wind parks, including generators and converters, transformers, switchgear and control systems. It also has technology to improve the generation and transmission of renewable energy sources.
Energy Efficiency	According to the company, "ABB is optimizing energy efficiency with a wide variety of products and solutions in our own businesses. We are helping our customers to do the same in areas such as power transmission and distribution, power generation, industries such as cement, pulp and paper, mining, chemicals and oil and gas, as well as at factories and buildings worldwide."
Commercial Business: ***Cogeneration***	ABB has built approximately 1,500 small combined heat and power plants in Europe. CHP plants produce both electricity and steam to heat nearby buildings, reducing GHG emissions by 60% compared to coal-fired power plants and by about 30% compared to natural gas-fired plants.
Management and control systems	ABB's Optimax and Combustion Optimizer are used in hundreds of power plants to improve their operating efficiency. ABB systems Modan and Modakond optimize the operation of turbines and boilers in steam power plants, leading to efficiency gains of up to 0.5%.
Variable speed drives	ABB is the world's top supplier of variable speed drives, which reduce energy consumption by closely regulating the speed of motors. Worldwide, ABB drives help to save some 80 terawatthours of energy every year, the equivalent of 9,000 MW of power generation. These savings translate to a reduction in CO_2 emissions of 68 million tons per year.
Distributed power	ABB manufactures alternative energy and small-scale distributed power generation components and systems that complement existing power markets, including wind farms, fuel cells, and combined heat and power plants using miniature gas turbines. ABB is also developing a number of technologies for energy efficiency and clean energy, including a joint venture with DuPont to develop fuel cell systems.
High-voltage transmission	ABB's HVDC (high voltage direct current) Light technology has several environmental benefits: no electromagnetic field, low transmission losses for linked AC grids, oil-free cables, and lines that can run underground or underwater. Key technologies to stabilize grids also include FACTS (Flexible AC Transmission Systems) and conventional HVDC transmission technology.
Carbon sequestration	ABB built the world's first commercial CO_2 capture facility at its Shady Point, Okla., coal-fired power plant. It captures 200 tons of CO_2 a day from the plant's flue gas, which is purified, liquefied and sold to the food products industry. ABB is also studying the possibility of storing CO_2 in the ocean floor, in conjunction with Pacific International Center for High Technology Research and the Natural Energy Laboratory of Hawaii Authority, and other research facilities in Japan, U.S. and Norway.
Satellite instrumentation	ABB Analytics will supply the Michelson Interferometer, the instrument used to measure carbon dioxide and methane levels up to 30 times daily, for the GOSAT satellite to be launched in 2008 by the Japanese Space Agency. This satellite is capable of tracking every country's level of compliance under the Kyoto Protocol, which establishes national limits on CO_2 emissions. In two U.S. satellite programs, the Interferometer will track and predict hurricanes by taking global measures of temperature, humidity and barometric pressure. The satellites are scheduled for launch in 2007.

Caterpillar Inc.

NYSE: ***CAT***
Industry: ***Industrial equipment***

Caterpillar's board of directors includes a Public Policy Committee that oversees the company's environmental affairs. Caterpillar announced a goal in 2005 to reduce its revenue-normalized emissions of greenhouse gases by 20% in 2002–2010. It also says it reduced its CO_2 emissions by 420,000 tons in 1990–2001 through fuel switching, process changes and energy conservation programs. Caterpillar says it is committed to the ongoing development, commercialization and global deployment of clean and highly efficient technologies. The company has not issued an environmental report with any statistical data. It said it would produce its first GHG emissions inventory in late 2005 as part of its commitment to EPA's Climate Leaders program.

Summary Score: 27

Company Information	
	Caterpillar is a global heavy machinery and equipment production company. It is the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines and industrial gas turbines. The company specializes in construction, transportation, mining, forestry, energy, logistics, electronics, financing and electric power generation. It had sales of $30 billion in 2004.
Contact Information	
CEO / Chairman	James W. Owens
Contact	Tel: 309-675-1000 • Web: www.cat.com
Address	100 NE Adams St Peoria, IL 61629-0002 USA
Board Oversight	***Score: 3***
Board Committee	Public Policy Committee
Committee Chair	John Brazil, President, Trinity University
Actions Taken	None identified on climate change or GHG controls.
Management Execution	***Score: 3***
CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	W. Stan Born, Director of Social Responsibility
Executive Committee	None identified.
Link to Executive Compensation	None identified.
Public Disclosure	***Score: 2***
Company Statement	*From company website:* "Caterpillar has invested heavily in emissions reduction technologies focusing on related research, development and engineering. These investments place us at the forefront in providing clean, efficient solutions to the industries we serve. Such solutions are critical to our customers and represent significant, increasing areas of opportunity for Caterpillar…. "We believe that intelligent, responsible public policies addressing global climate change will ensure that environmental protection is compatible with strong global economic growth and development. We support policies, mechanisms, and activities that are shown to both protect the global environment and strengthen fundamental principles inherently sound for our business and stakeholders."
Securities Filings Statement	None identified.
Company Report	*Making a Difference* (undated and without statistics)
GRI Report	None.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Caterpillar Inc.

NYSE: ***CAT***
Industry: ***Industrial equipment***

Emissions Accounting	***Score: 7***
Savings Calculated by Company	***Amount:*** 450,000 tons of CO_2 ***Scope:*** Entity-level ***Time frame:*** 1990–2001 The savings resulted from fuel switching, process changes and energy conservation programs.
GHG Emissions Inventory	As part of its commitment to EPA's Climate Leaders program, Caterpillar said it would report on its GHG emissions inventory in late 2005.
Third Party Verification	No.
Reporting Protocol	None identified.

Strategic Planning	***Score: 12***
Emissions Targets	***Baseline year:*** 2002 ***Target year:*** 2010 ***Region:*** Global ***Amount:*** 20% decrease in revenue-normalized GHG emissions Caterpillar announced this target in 2005 as part of its commitment to EPA's Climate Leaders program.
GHG Emissions Trading	***Voluntary programs***—None. ***Government programs***—Caterpillar has locations in Europe that are subject to GHG emission allocations under the EU Emissions Trading Scheme. These locations are expected to meet emission reduction targets through energy conservation efforts and efficiency improvements.
Green Power	Caterpillar manufactures generator sets that can be used at landfills to combust methane and other landfill gases to produce electricity.
Energy Efficiency	Caterpillar's MorElectric System provides an alternative technology for vehicle engines that, when idling, reduces noise and emissions. Caterpillar says MorElectric auxiliary power unit seasonally averaged fuel consumption is 0.2 gallons per hour, which represents a 0.7 gal/hr fuel savings over conventional engine idling during rest periods. This 0.7 gal/hr fuel savings reduces annual fuel consumption by 630 to 1,260 gallons per truck.
Commercial Business	Caterpillar's Solar Turbine business offers SoLoNOx™, a high-efficiency, low-emission technology that significantly reduces nitrogen oxide emissions. Its Mercury 50 turbine engine set, the company says, reduces emissions to the lowest level in the industry and increases efficiency by more than 30% over previous designs. (These turbines are fueled by natural gas, not solar power.)

Deere & Co.

NYSE: ***DE***
Industry: ***Industrial equipment***

Deere & Co. has not addressed climate change as a strategic issue. The company began tracking its GHG emissions in 2003, but so far is disclosing emissions intensity data only. It says it is seeking to establish more environmentally friendly and energy efficient practices in new manufacturing facilities. Deere has created a new wind energy business unit, managed by its credit business, which planned to invest up to $60 million in wind energy projects by the end of 2005.

Summary Score: 14

Company Information	
	Deere & Co. manufactures and distributes a full line of farm equipment used in agricultural, commercial and residential uses as well as equipment used in construction, earthmoving, material handling and timber harvesting. Deere had sales of nearly $20 billion in 2004.

Contact Information	
CEO / Chairman	Robert W. Lane
Contact	Tel: 309-765-8000 • Web: www.deere.com
Address	1 John Deere Pl Moline, IL 61265-8098 USA

Board Oversight	***Score: 1***
Board Committee	Governance Committee
Committee Chair	Crandall Bowles, CEO, Springs Industries
Actions Taken	None identified on climate change or GHG controls.

Management Execution	***Score: 2***
CEO Statement	None identified.
Chief Environmental Officer	Laurie Zelnio, Director, Safety, Environment & Energy Management
Levels to CEO	2
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 3***
Company Statement	*From company website:* "Climate change due to greenhouse gas (GHG) emissions is a global business issue that could impact John Deere products, processes, and customers.... As a company, we are working to reduce GHG emissions from both our current and future operations. In addition, we continue to reduce our products' emissions, which in turn helps our customers reduce their GHG emissions."
Securities Filings Statement	None identified.
Company Report	*Deere & Company Annual Review - Environment, Health and Safety*
GRI Report	None identified.
Carbon Disclosure Project	Provided information, did not permit disclosure.

Deere & Co.

NYSE: ***DE***
Industry: ***Industrial equipment***

Emissions Accounting

Score: 4

Savings Calculated by Company	None identified.
GHG Emissions Inventory	***2004 Amount:*** 60.60 tons CO_2/ton production ***Region:*** Global (intensity rate) ***2003 Amount:*** 62.62 tons CO_2/ton production ***Region:*** Global (intensity rate) John Deere's GHG inventory protocol classifies emissions into two categories—direct emissions from site operations and indirect emissions from electricity and steam purchases. In 2003 and 2004, indirect emissions from purchased electricity accounted for more than 60% of the company's reported CO_2 emissions.
Third Party Vertification	No.
Reporting Protocol	GHG Protocol

Strategic Planning

Score: 4

Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	The company has created a new wind energy business unit, managed by John Deere Credit, to oversee its wind energy investments. Deere expected to invest up to $60 million in wind projects by the end of 2005. It has no plans to manufacture wind turbines. Deere also has a Green Power Partnership for a manufacturing facility in Dallas, Tex. It provides biodiesel fuel for some factory filling stations.
Energy Efficiency	Deere is building a new factory using Leadership in Energy and Environmental Design (LEED) principles. A substantial portion of the building site is planned to be preserved as an undisturbed natural habitat. The factory's green features include energy-efficient motors and lighting, bus loading/unloading areas to encourage use of mass transit vehicles, and thousands of new trees to replace vegetation removed for the new construction. In addition, John Deere Forestry provides training tools and reference information for forestry equipment operators to efficiently operate and maintain equipment for both productivity and minimizing equipment emissions and environmental impact in forests.
Commercial Business	John Deere Power Systems manufactures compressed natural gas (CNG) engines for school buses.

General Electric Co.

NYSE: ***GE***
Industry: ***Industrial equipment***

General Electric Chairman Jeffrey Immelt announced a new "Ecoimagination" initiative in 2005. Under this initiative, GE has pledged to achieve a 1% reduction in its greenhouse gas emissions from 2004 levels by 2012, and to cut the GHG intensity rate of its operations by 30% by 2008. GE also plans to double its investments in environmentally friendly technologies by 2010, from $700 million to $1.5 billion a year. GE projects that its sales of environmentally friendly technologies, such as highly efficient gas turbines, wind turbines, hybrid diesel-electric locomotives, integrated gasification combined cycle coal plants and water purification systems, could reach $20 billion a year by 2010. A sustainability report, published for the first time in 2005, provides an annual update on its progress.

Summary Score: 58

Company Information

GE produces aircraft engines, locomotives and other transportation equipment, household appliances, lighting, electric distribution and control equipment, generators, turbines, nuclear reactors, medical imaging equipment and plastics. Nearly half of its sales come from financial services, including commercial and consumer financing and insurance. It also owns NBC and other television networks. It had sales of $148 billion in 2004.

Contact Information

CEO / Chairman	Jeffrey R. Immelt
Contact	Tel: 203-373-2211 • Web: www.ge.com
Address	3135 Easton Tpke Fairfield, CT 06828-0001 USA

Board Oversight

Score: 5

Board Committee	Public Responsibilities Committee
Committee Chair	Sam Nunn, Senior Partner, King & Spalding, and former U.S. Senator (1972–1996)
Actions Taken	None identified on climate change or GHG controls. (See CEO statement below.)

Management Execution

Score: 12

CEO Statement — *From a speech launching GE's Ecomagination campaign in May 2005:*

"*Ecomagination* is a new concrete commitment by GE to develop and drive technologies of the future that will protect and clean our environment, innovation to promote energy efficiency, lower emissions, reduce our use of fossil fuels, and increase the supply of usable water. Ecomagination is a growth strategy driven by our belief that applying technology to solving problems is great business. And Ecomagination is a commitment to invest billions over the next decade in creating cleaner power and water technology and to improve our own environmental performance. These are daring goals but we believe that we can improve the environment and make money doing it….

"[W]e will do for ourselves what we want to help our customers accomplish. And we're going to invest every year between now and 2012 in order to improve the energy efficiency of our company operations by 30% and reduce our worldwide [GHG] emissions by 1%. And we believe that 70% of this investment will be in our own technology… Industry and government have to take steps to develop a policy that is engaged in greenhouse gases, like carbon dioxide. There's a long road ahead to implement lasting solutions but even small steps will get us headed in the right direction….

"We are living in a carbon-constrained world where the amount of CO2 must be reduced. And there are two ways to address that reality: head on and driven by innovation or by getting pulled into it through regulation. The burden is on us to lead and the industry must set its own aggressive and meaningful targets. We think that real targets, whether voluntary or regulatory, are helpful because they drive innovation. And of course, whatever you call them—targets, caps, or goals—they have to be realistic, they have to be consistent, and they have to be followed. But the setting of targets raises the stakes and brings forth our best. We'll do our part…."

Chief Environmental Officer	Stephen Ramsey, Vice President, Corporate Environmental Programs
Levels to CEO	1

General Electric Co.

NYSE: ***GE***
Industry: ***Industrial equipment***

Management Execution	*(continued)*
Climate Change Executive	Stephen Ramsey and Lorraine Bolsinger, Vice President, Ecomagination. Ramsey focuses on policy and compliance. Bolsinger focuses on commercial activity. Ramsey and Mark Stoler, Director of Environmental, Health and Safety Operations, also serve as company representatives on the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	None identified.
Link to Executive Compensation	GE implies a link between pay and environmental performance, but does not state it explicitly. It says, "Each quarter, a GE environment, health and safety scorecard goes to our CEO and other top leaders showing individual business performance on 22 metrics."

Public Disclosure	***Score: 9***
Company Statement	*From company website:* GE says "there will continue to be an increasing need around the world to reduce greenhouse gas emissions." It says that its climate change strategy has six elements: 1) "Providing a wide array of products across our businesses to help today's consumers and business customers meet their needs for energy efficiency and reduced GHG emissions." 2) Pursuing "an aggressive research program looking at next-generation technologies such as hydrogen storage, hybrid locomotives and solid state lighting." 3) "Funding longer-term research at academic institutions." GE notes that it is sponsoring Stanford University's Global Climate and Energy Project (GCEP), a multi-million dollar collaborative research project to identify and develop alternative energy technologies. 4) "Ensuring governmental authorities and regulators are aware of the capabilities of GE technologies." GE has testified in the U.S. Congress about its alternative technologies. 5) "Participating in efforts to discuss the difficult technological and policy issues raised by climate change." 6) "Taking action on the greenhouse gas emissions generated by GE's own operations."
Securities Filings Statement	*Excerpt from Form 10-K:* GE says its "researchers and engineers continue to search for novel solutions to challenging issues: meeting the world's rising energy demands while reducing greenhouse gases and emissions of power generation technologies; reducing emissions while raising fuel efficiency in air and rail transportation; and increasing energy efficiency of appliances and lighting, while meeting the need for performance and capabilities."
Environmental/Sustainability Report	*Our Actions—GE 2005 Citizenship Report*
GRI Report	See above.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 12***
Savings Calculated by Company	***Amount:*** 230,000 tonnes of CO_2 in 2004 ***Scope:*** Project level As part of its partnership with EPA's Energy Star Million Monitor Drive, GE began to power down its computer monitors automatically when not in use. GE is the largest participant in this EPA program, having enabled energy management features in 85,000 of its computers.
GHG Emissions Inventory	***2004 Amount:*** 11,100,000 tonnes of CO_2e ***Region:*** Global ***2002 Amount:*** 10,500,000 tonnes of CO_2e ***Region:*** Global
Third Party Vertification	GE says a third party review is in progress.
Reporting Protocol	GHG Protocol

General Electric Co.

NYSE: ***GE***
Industry: ***Industrial equipment***

Strategic Planning		***Score: 20***
Emissions Targets	***Baseline year:*** 2004 ***Target year:*** 2012 ***Region:*** Global ***Amount:*** Not to exceed 11,000,000 tonnes of annual CO_2e emissions GE made this commitment to reduce its absolute emissions by 1% in 2004–2012 as part of its Ecoimagination campaign and as a partner in EPA's Climate Leaders program. It says that without this commitmemt, its emissions were projected to grow 40% over the period. ***Baseline year:*** 2004 ***Target year:*** 2008 ***Region:*** Global (intensity rate) ***Amount:*** 30% decrease in normalized energy use from production.
GHG Emissions Trading	***Voluntary programs***—None identified. ***Government programs***—GE's has about a dozen manufacturing facilities in Europe that are subject to the E.U. Emissions Trading Scheme and says they "will be able to operate within their allocations."
Green Power	GE Energy is a leading manufacturer of utility scale wind turbines. More than 975 GE wind turbines were installed in 2003, and 611 more were installed in 2004. In 2005, GE is providing more than 60% of the approximately 2,500 megawatts of wind energy capacity projected to be installed in the U.S. GE estimates that its installed wind turbines offset 11.4 million tons of CO_2 emissions each year. GE also manufactures photovoltaic power systems. The installed capacity of these systems is enough to power 12,000 homes. GE is developing roof-integrated tile systems that can supply 60% of home energy needs without the need for any additional land use.
Energy Efficiency	GE regards improvements in the energy efficiency of its operations and products as the key to its strategy to reduce GHG emissions. GE has 323 appliances and 163 lighting products earning EPA's "Energy Star" label. In 2004, EPA named GE its Partner of the Year "for outstanding contributions to environmental protection and energy efficiency in the manufacture of high-efficiency household appliances and lighting products."
Commercial Business: ***Gas turbines***	GE's H System turbine, which entered commercial service in 2003, and is the first gas turbine combined-cycle technology capable of achieving 60% efficiency; it also has 40% greater power density than conventional combined cycle technology. One H System turbine can generate enough power for 300,000 homes.
Jet engines	GE's new Genx jet engine, which will power the Boeing 787 and Airbus 350, has achieved 15% gains in fuel efficiency. The GE 90-115B engine, which powers the Boeing 777, is the world's most powerful engine and gets up to the equivalent of 86 mpg on a passenger-mile basis.
Locomotives	GE is working on a hybrid diesel-electric locomotive that will use regenerative braking to give the engine a 2,000 horsepower boost, while cutting fuel consumption by 10%. GE's Evolution Series locomotive has a 12-cylinder diesel engine that produces the same horsepower as its 16-cylinder predecessor, saving 189,000 gallons of fuel over its projected lifetime.
Clean coal	GE has invested in integrated gasification combined cycle (IGCC) technology, which produces electricity from coal that is much cleaner and more efficient. GE is working with partners like Bechtel, American Electric Power and Cinergy to build a 600 megawatt, commercial scale IGCC plant that would reduce CO_2 emissions by 2 million tons, compared with a conventional pulverized coal plant. IGCC technology also facilities the capture of CO_2 emissions, which if permanently stored in the ground would allow for zero CO_2 emissions from these coal plants.
Other	Other Ecoimagination projects include microturbines, solid oxide fuel cells and hydrogen energy. GE also has been a manufacturer of nuclear reactors for more than 40 years and is pursuing the development of advanced reactor designs.

Hitachi Ltd.

NYSE: ***6501***
Industry: ***Industrial equipment***

Hitachi has a Senior Executive Committee for Environmental Policy that has set targets for reductions in CO_2 emissions. One target calls for a 7% cut in absolute emissions by Hitachi's Japanese operations in 1990–2010. Another target calls for a 25% reduction in the company's CO_2 emissions intensity rate in Japan, and 5% in its overseas operations, over the same period. To help meet these targets, Hitachi launched a CO_2 Emissions Reduction System in 2003 that grades its facilities according to energy use and GHG emissions reductions. It has also developed an environmental assessment system that evaluates its products based on eight life-cycle criteria, including a "prevention of global warming factor." As of March 2005, Hitachi said that 72% of the company's overall sales volume qualified as "Eco-Products." Hitachi produces an annual sustainability report. *The company declined to comment on this profile.*

Summary Score: 51

Company Information

Hitachi manufactures elevators and escalators, industrial robots and control systems, and power plant equipment. Its other industrial products include metals, wire and cable. Its consumer goods include televisions, refrigerators and washing machines. Its high-technology products include corporate transaction-oriented mainframes, as well as semiconductors, personal computers and other information systems and telecommunications products. It also has operations in financial services, property management and transportation. Hitachi had sales of $84.4 billion in 2004.

Contact Information

CEO / Chairman	Etsuhiko Shoyama
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Board Oversight

Score: 2

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls. (See Executive Committee below.)

Management Execution

Score: 7

CEO Statement	None identified.
Chief Environmental Officer	The head of Hitachi's corporate Environmental Policy Division reports directly to its CEO.
Levels to CEO	0
Climate Change Executive	None identified.
Executive Committee	Senior Executive Committee for Environmental Policy This managerial level committee is chaired by Hitachi's president and CEO. It assesses and determines the environmental policies and strategies for the entire company, including those addressing climate change. The environmental policies adopted by this committee are delegated to the Environmental Management Operations Committee to be implemented and communicated throughout the organization.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 6

Company Statement	*From company website:* "Global warming is of course an issue that calls for a global response. Moreover, with the migration of our production sites to overseas locations in recent years, our overseas CO_2 emissions have increased 1.3 times compared to fiscal 1990, prompting us to change overseas reduction targets: 1.5% reduction in CO_2 emissions per unit of production by 2010 (compared to fiscal 2003). Due to expanded production and other factors, CO_2 emissions per unit of production for fiscal 2004 grew by 1% over the previous year." The statement also describes Hitachi's CO_2 emissions and GHG reduction programs in Japan.
Securities Filings Statement	None identified.
Environmental/Sustainability Report	*Environmental Sustainability Report 2004*
GRI Report	See above.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Hitachi Ltd.

NYSE: ***6501***
Industry: ***Industrial equipment***

Emissions Accounting

Score: 18

Savings Calculated by Company

Amount: 629,000 tonnes of annual CO_2 emissions ***Scope:*** Entity level (Japan)
Time frame: 1990–2004

In Japan, Hitachi has reduced CO_2 emissions by 20% over the period through the deployment of inverter-equipped pumps and fans, control devices for reducing the number of running devices, and control systems for monitoring electricity consumption and optimizing operation of air conditioners. It says it has also raised awareness with managers in charge of energy efficiency measures in its factories through seminars, reporting and training on good practices.

Product Footprint

To utilize resources more effectively, Hitachi has introduced an "Environmental Efficiency" index that includes a "Prevention of Global Warming" factor. This efficiency index is meant to show the value in terms of its functioning and lifespan while controlling environmental impacts and resource consumption. The first measure is the ratio of the product's value to the amount of greenhouse gases released during its life cycle (Prevention of Global Warming Efficiency); the second is the ratio of the product's value to the sum of the amount of new resources that are extracted from the Earth for its production and the amount of waste remaining when the product is disposed of (Resource Efficiency).

GHG Emissions Inventory

2004 Amount: 3,932,000 tonnes of CO_2 ***Region:*** Global
1990 Amount: 4,125,000 tonnes of CO_2 ***Region:*** Global

In 2004, 55% of these inventoried emissions came from manufacture of high functional materials and components, and another 19% came from manufacture of power and industrial systems. Four other products segments each accounted for less than 10% of the total inventory. Hitachi estimates that its emissions of GHGs other than CO_2 have fallen from 130,000 tonnes of CO_2 equivalent in 1990 to 42,000 tonnes by 2003.

In 2005, Hitachi began applying a different accounting method that incorporates new consolidated subsidiaries, increases in production volume and a new conversion factor for emissions from electric power generation. Under this accounting method, Hitachi is projecting a 3% net reduction in CO_2 emissions in 1990-2005 and a 20% reduction in its CO_2 intensity rate over the period.

Third Party Vertification

No.

Reporting Protocol

None identified.

Strategic Planning

Score: 18

Emissions Targets

Baseline year: 1990 ***Target year:*** 2010 ***Region:*** Japan
Amount: Not to exceed 2,713,000 tonnes of CO_2e

This target represents a 7% reduction in emissions from Japanese operations in 1990–2010, taking into account new consolidated subsidiaries, increases in production volume and a new conversion factor for emissions from electric power generation. (Without these changes, the projected reduction would be 16%.)

Baseline year: 1990 ***Target year:*** 2010 ***Region:*** Global (intensity rate)
Amount: 5% reduction in CO_2e emissions per unit of production (outside of Japan)

Hitachi has also targeted a 25% reduction in its GHG emissions intensity rate in Japan for 1990–2010.

GHG Emissions Trading

None identified.

Green Power

Hitachi's use of refuse-derived fuel and very small amounts of solar and wind power was equivalent to 3,212 kiloliters of crude oil in 2004. Including gas-fired cogeneration facilities, these power sources represented 4.3% of total heating and 1.6% of total electricity consumed in 2004 (almost all of which was represented by cogeneration).

Strategic Planning	*(continued)*
Energy Efficiency	Hitachi launched a CO_2 Emissions Reduction System in fiscal 2003 to help it achieve its goals. Under this system, it calculates the amount of CO_2 generated as a result of energy usage, through purchasing electricity and fuels, for each of its facilities, and then compares emissions reductions by each facility based on annual targets and actual results. Its Type 1 Designated Energy Management factories are then ranked from A to D, according to performance, and posted on the Group's intranet. The ranking serves as an objective indicator for top management of Group companies, and has prompted an increasing number of companies to allocate more funds for energy-saving activities. In fiscal 2004, the number of factories that achieved A rank increased from 26 to 32. Hitachi also is making its clean rooms used in the production of semiconductors more energy efficient. It has developed a way to use the heating energy carried by the water coming out of the facilities' cooling pipes to use as a "low-grade" heat source for air-conditioning and utility equipment, which in turn saves energy and lowers emissions.
Commercial Business	To minimize the environmental burden at each stage of a product's life cycle, Hitachi develops products based on its design for the environment assessment system. Created in 1999, the system evaluates products on eight criteria—resource reduction, product longevity, resource recycling, ease of disassembly, ease of processing, environmental safety, energy conservation and provision of information. It defines as "Eco-Products" those products that achieve at least two on a scale of zero to five for each of these eight criteria, as well as an average score of three or higher. As of March 2005, 817 Hitachi products (3,294 different model types) qualified as Eco-Products under this ranking system, accounting for 72% of the company's overall sales volume. Examples include room air conditioners, voltage switchgear, computer storage systems and magentocardiograph machines (for medical analysis of the heart). In addition, it says that its power sector division has "given high priority to environmental protection in its product design" in recent years because of high demand for more energy efficient products from private power companies.

Mitsubishi Heavy Industries Ltd.

Tokyo Stock Exchange : ***7011***
Industry: ***Industrial equipment***

Mitsubishi Heavy Industries (MHI) sets company policy on environmental matters through an executive-level Environmental Committee. The company has set a target to reduce GHG emissions from its production facilities by 6% in 1990–2010. As of 2004, its emissions had risen 12% above 1990 levels. MHI sees itself as contributing to solutions to climate change through the manufacture of a range of products that help reduce GHG emissions, including nuclear power plants, combined heat and power plants, high-efficiency gas turbines, renewable energy systems and high-efficiency commercial air conditioning equipment. MHI has also developed technology for CO_2 recovery and sequestration.

Summary Score: 45

Company Information

Mitsubishi Heavy Industries (MHI) is a global company involved in a range or products and services, including shipbuilding, power systems, nuclear power, steel and construction, heavy machinery, aerospace, air conditioning and refrigeration systems, and paper and printing. Machinery and construction account for about 45% of its sales; nuclear power accounts for another 25%. MHI had total sales of $22.5 billion in fiscal 2005, 90% of which were in Japan.

Contact Information

CEO / Chairman	Kazuo Tsukuda
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Board Oversight

Score: 1

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 5

CEO Statement	None identified.
Chief Environmental Officer	Hideo Egawa, Executive Vice President and General Manager, Global Strategic Planning and Operations Headquarters
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	Environmental Committee This committee, chaired by Hideo Egawa, plans and prepares MHI's annual environmental policy to determine the direction of its activities, and follows up the annual plan prepared by respective headquarters and divisions, and works on environmental protection. The committee is supported by the Executive Office of General Affairs Department as well as MHI's Technical Headquarters.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 5

Company Statement — *From 2005 Social and Environmental Report:*

"The Kyoto Protocol requiring developed countries to reduce their greenhouse gas emissions came into effect on February 16, 2005. Finally recognizing global warming as a common challenge of all humankind, the international community has taken the first steps toward dealing with this issue.

"One of the typical greenhouse gases is carbon dioxide (CO_2), which is primarily emitted by combustion of fossil fuels such as petroleum and coal. As long as the world continues to require use of fossil fuels as a precious energy source, its efficient use should be the most important measure for stopping global warming. Developing countries will certainly have more demand for energy resources in the future than they do today. How can they use energy resources efficiently while reducing the effects on the environment? MHI is committed to fulfilling its social responsibilities on general environmental issues, helping to create a sustainable society. Particularly, MHI proactively provides world-class energy and environmental technologies, thereby contributing to the reduction of global warming."

Public Disclosure	*(continued)*
Securities Filings Statement	None identified.
Environmental/Sustainability Report	*2005 MHI Social and Environmental Report*
GRI Report	See above.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 15***
Savings Calculated by Company	***Amount:*** 50,782,080 tons of CO_2e in 2004 ***Scope:*** Project level ***Time frame:*** 2004 These are estimated savings resulting from use of MHI products. In percentage terms, the savings listed are as follows: nuclear power plants (96.9%), natural energy power generation (wind power, photovoltaics and other renewable energy—1.7%), combined heat and power systems and conventional thermal power plants (1.2%), high-efficiency centrifugal liquid chillers for commercial air-conditioning systems (0.1%) and forklifts fueled by compressed natural gas (0.1%).
GHG Emissions Inventory	***2004 Amount:*** 529,000 tonnes of CO_2e ***Region:*** Japan ***1990 Amount:*** 472,000 tonnes of CO_2e ***Region:*** Japan MHI says the 12.1% increase in emissions over the period came mainly from an increase in production, particularly in shipbuilding.
Third Party Vertification	Yes.
Reporting Protocol	None identified.

Strategic Planning	***Score: 19***
Emissions Targets	***Baseline year:*** 1990 ***Target year:*** 2010 ***Region:*** Japan ***Amount:*** Not to exceed 443,000 tons of CO_2e This target represents a 6% decrease from its production facilities relative to 1990 levels, and a 16% reduction relative to 2004 levels.
GHG Emissions Trading	None identified.
Green Power	MHI's Natural Energy Power Generation business manufactures wind turbines, photovoltaic power systems, hydroelectric turbines, geothermal power systems, biomass generating plants and fuel cells. In addition, MHI is an active participant in the "Green Power Certification system" of Japan Natural Energy Company Limited (JNE). Under this program, launched in 2002, MHI has contracted to purchase 1 million kwh per year of wind-generated power from JNE over 15 years.
Energy Efficiency	None identified. MHI has focused its reporting on energy and GHG savings achieved by its customers, rather than through its operations.
Commercial Business	MHI is a manufacturer of nuclear power plants, combined heat and power systems, renewable energy systems, high-efficiency gas turbines and high-efficiency centrifugal chillers, all of which contribute to substantial reductions in CO_2 and other GHG emissions. MHI has also developed a CO_2 recovery and rentention technology that captures CO_2 gas and uses it to enhance oil recovery.

Siemens AG

NYSE: ***SI***

Industry: ***Industrial equipment***

Siemens' environmental policy is set by its Managing Board of Directors and is carried out by an executive-level department. The company has conducted an inventory of its GHG emissions, but has not set targets to control them. Its focus is largely on curbing emissions through its industrial and commercial products offerings. The company believes that many of its products and services can contribute to climate protection. These include high-efficency gas-fired power plants, renewable energy systems, high voltage direct current transmission systems and regeneration braking systems to store energy used by trains. Siemens is also a major nuclear power vendor through its participation in the Areva consortium.

Summary Score: 40

Company Information	
	Siemens is Europe's largest electronics and electrical engineering firm. It has operations worldwide in the industrial automation and control, information and communications, lighting, medical, power transmission and transportation sectors. Siemens Communications Group is a leading global manufacturer of telecom network equipment. The company also has a minority stake in chip maker Infineon Technologies. It had sales of $90.7 billion in 2004.
Contact Information	
Chairman of Management Board	Dr. Klaus Kleinfeld
Chairman of Supervisory Board	Dr. Heinrich Pierer
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Board Oversight	***Score: 4***
Board Committee	An unnamed representative of the Managing Board of Directors has overall responsibility for environmental protection at the company.
Actions Taken	None identified on climate change or GHG controls. The 12-member managing board sets overall environmental policy. It cooperates closely with the 20-member supervisory board.
Management Execution	***Score: 8***
CEO Statement	*Excerpt from July 2005 letter to G8 Roundtable from 23 CEOs, including Kleinfeld:* "Business and governments can—and must—work together on climate change mitigation… [W]e can identify and implement policy measures that will create meaningful and effective solutions, while at the same time ensuring long-term value for shareholders. With properly designed programs and incentives, we can unleash the power of the market to accelerate the deployment of low carbon technologies, engaging both producers and consumers alike. And with the right kind of focus on both the needs and aspirations of emerging markets, we can ensure that a truly global solution to the problem is achieved."
Chief Environmental Officer	Dr. Wolfgang Bloch
Levels to CEO	2
Climate Change Executive	Dr. Wolfgang Bloch
Executive Committee	Department of Corporate Environmental Affairs and Technical Safety This department takes direction from the managing board and implements the policies set by it. It has offices for industrial environmental protection, product-related environmental protection, radiation protection and fire and industrial disaster prevention.
Link to Executive Compensation	None identified.

Siemens AG

NYSE: ***SI***
Industry: ***Industrial equipment***

Public Disclosure

Score: 4

Company Statement — *From company website:*

- Siemens supports market mechanisms and technology innovation as the most effective approaches to reducing the emissions of greenhouse gases.
- Siemens fosters specifically with regard to carbon dioxide all technical possibilities of power generation in order to reduce greenhouse gases in an economic way.
- Siemens will contribute to make available the existing varieties of further efficiency potential in fossil power generation and power distribution.
- Siemens strongly supports up-grading to modern technologies to reduce GHG emissions.
- Siemens supports customers in enhancing building performance and energy efficiency for the lifetime of buildings.
- Siemens does continue to focus on the efficient energy use, from extraction of primary energy sources, power generation and distribution down to the end user.

Securities Filings Statement — None identified.

Company Report — ***Corporate Responsibility 2003***

GRI Report — None.

Carbon Disclosure Project — Answered questionnaire, declined public disclosure.

Emissions Accounting

Score: 9

Savings Calculated by Company — ***Amount:*** 180,000 tonnes of annual CO_2 emissions ***Scope:*** Project level

Siemens places particular emphasis on increasing the energy efficiency of installed generating capacity. As an example, Siemens upgraded a steam turbine for a German coal-fired power plant to raise its net efficiency by two percentage points, resulting in 180,000 tonnes of annual CO_2 emissions reductions. In the United States, several Siemens subsidiaries are partners in EPA's Energy Star program.

GHG Emissions Inventory — ***2003 Amount:*** 2,013,228 tonnes of CO_2e ***Region:*** Global

Separately, Siemens estimates that its operations in 2003 emitted 176 kilograms of CO_2 per square meter of floor space. Most of the company's CO_2 emissions come from purchased energy. It does not include emissions from logistics (delivery of goods) in this figure.

Third Party Vertification — No. Siemens reports that 280 of its organizational units in 30 countries have decided to seek certification to the ISO 14001 standard. These units account for roughly 65 percent of our sales. In addition, ten of its locations in Europe are taking part in the E.U.'s Eco-Management and Audit Scheme (EMAS).

Reporting Protocol — In preparation.

Strategic Planning

Score: 15

Emissions Targets — None identified on CO_2.

Siemens sets "best in class" energy efficiency targets as part of its "Fit4More" program.

GHG Emissions Trading — ***Voluntary programs***—Siemens says it has "developed a number of software solutions to assist our customers with the annual reporting process and the management of emission rights." It says that "these solutions automate the recording and processing of fuel and process data.

Government programs—Siemens has four facilities subject to the E.U. Emissions Trading Scheme.

Green Power: ***Wind*** — Siemens has become a major player in the wind power business. It acquired Danish concern Bonus Energy in December, then the industry's fifth largest player, with 3,321 megawatts of installed capacity in 20 countries. In November 2005, Siemens acquired German wind-power company AN Windenergie, which owns 1,300 MW of wind-power capacity in Germany.

Strategic Planning	*(continued)*
Green Power: ***Biomass***	Siemens supplies key components for biomass power plants, and it builds turnkey biomass generating facilities with an output of up to 50 MW. At present, Siemens is building Europe's largest biomass burning power plant for Wien Energie (Austria) near Vienna. The power station, to be completed in the summer of 2006, will burn up to 200,000 tonnes of wood waste per year and generate 24.5 MW of electric energy. The power station will supply heat at an output of 37 MW, which will increase its total efficiency to more than 80%. The energy produced is carbon-neutral, since the organic matter used only releases as much carbon dioxide during combustion as it has absorbed from the atmosphere during growth.
Geothermal	Siemens will provide all above-ground technical systems for Germany's largest geothermal power plant, which is being built in Offenbach. The 5 MW facility will have sufficient capacity to generate power for about 20,000 homes.
Solar	Siemens exited the solar power business when it sold Siemens Solar, a photovoltaics manufacturer, to Royal Dutch Shell in 2004. However, it continues to offer autonomous solar systems and installations in developing countries with poorly developed infrastructure.
Energy efficiency	Siemens reports that its Building Technology division has realized energy conservation projects in the United States, in Canada, and Europe with a value of €1.2 billion energy savings since 1995. Installing Siemens' GAMMA instabus building management system can cut power consumption as much as 30% in offices. Siemens also offers demand-side management services at manufacturing plants to optimize use of electric power as well as other types of energy like steam, pressurized air and gas. Siemens also manufactures energy-saving lamps and control systems that consume up to 80% less energy than incandescent lamps. Siemens estimates that a complete shift in Western Europe from lamps with conventional control gears to lamps with dimmble electronical control gear in office buildings would save per year 40,000 gigawatt-hours of electricity annually, equivalent to 40 millions tons of CO_2. Finally, Siemens is developing regenerative braking systems to store and reuse energy used by electric trains.
Commercial business: ***Combined cycle power plants***	Siemens designs combined cycle power plants that achieve operating efficiencies up to 58%. When power and heat are cogenerated, efficiency rates can reach up to 85%. Siemens has also designed integrated gasification combined cycle power plants that burn coal and lignite 45% more efficiently than conventional pulverized coal plants. Siemens says that over the last 15 years it has 300,000 operating hours of experience with "syngas" derived from coal that is burned in IGCC plants.
Nuclear power	Siemens regards nuclear power as a promising source for electric power capacity additions with no GHG emissions. Siemens merged its nuclear activities with France's Framatome to create Framatome ANP in January 2001, in which Siemens still holds a 34% stake. In September 2001, Framatome ANP, CEA-Industrie and Cogema were organized into a new holding company called Areva. Tareva has received major nuclear orders in China and is building a 1,600 MW reactor in Finland that will be the first to use a European Pressurized water Reactor (EPR) design. Siemens also is extensively involved in nuclear power plant services to increase the efficiencies and extend the operating lives of existing nuclear power plants.
Fuel cells	Siemens has been involved in fuel cell development since the early 1980s. It estimates that costs of fuel cells will decline from about $25,000 per kilowatt today to $2,500/kW in 2010, and under $1,500 by 2012. It believes fuel cells will penetrate the distributed generation market, but not compete against large scale combined cycle plants, because of their modular scale.
High-voltage transmission and superconductivity	Siemens manufactures high-voltage direct current transmission (HVDC) systems that convey large amounts of electricity over long distances (500 miles or more) with minimized energy losses. HVDC technology significantly raises net energy production from centralalized power stations and indirectly reduces associated CO_2 emissions. Siemens is also researching and developing energy solutions that tap superconductivity. At low temperatures well below minus 100 degrees Celsiuis, superconductors made from ceramics and cooled with nitrogen are capable of carrying electricity without resistance. In 2001, Siemens became the first company in Europe to construct a motor with rotor windings made of superconducting wires and with an output of 400 kilowatts. Today, it is working on a motor expected to deliver 4 MW of power that is suitable for use as an electric drive in ships.

United Technologies Corp.

NYSE: ***UTX***
Industry: ***Industrial equipment***

United Technologies Corp.'s (UTC) response to climate change is overseen by the Public Issues Review Committee of its board of directors. UTC Chairman George David was one of the first American chief executives to speak out publicly in favor of action on climate change. UTC says it is trying to keep ahead of the curve on climate change regulations by improving its manufacturing processes and lowering its energy costs, leaving more resources available to develop new and innovative products that reduce GHG emissions and energy consumption. UTC has set and achieved a target to reduce its energy use by 40% (normalized for revenues) in 1997–2007. It has also set a goal to reduce its facilities' CO_2 equivalent emissions (normalized for revenues) by 16% in 2001–2006. UTC has an extensive portfolio of GHG-reducing products, including elevators with regenerative braking systems, highly efficient jet engines and air conditioning systems, and fuel cells for stationary power production and motor vehicle use.

Summary Score: 52

Company Information

United Technologies (UTC) offers a range of high technology products and services to building systems and aerospace industries worldwide. UTC operates seven subsidiaries: Otis, Carrier, Pratt & Whitney, Hamilton Sundstrand, Sikorsky, UTC Fire & Security and UTC Power. Otis is the #1 elevator manufacturer, and Carrier is the world's largest maker of heating and air-conditioning units. It had sales of $37.6 billion in 2004.

Contact Information

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Board Oversight

Score: 6

Board Committee	Public Issues Review Committee
Committee Chair	Jean Pierre-Garnier, CEO, GlaxoSmithKline
Actions Taken	UTC quantifies environmental goals, measures progress and reports that progress to its the Public Issues Review Committee and the board of directors, including the issue of climate change.

Management Execution

Score: 13

CEO Statement

From 2003 speech on sustainability:

"UTC's products in service account for 2% of world [GHG] emissions, a significant share. Our products are ubiquitous and our equipment long lived. This is why the number is what it is but every time I look at it I'm surprised. We work tenaciously at improvements and but for these the greenhouse gas impacts would be significantly higher. For example, aircraft fuel consumption per seat mile is about 100 miles per gallon, three times [less than] what it was forty years ago. Engine fuel efficiency is about half of this gain. Air conditioners are 40% more energy efficient than two decades ago, and we know how to and do make them more than 60% better with only economics holding back more general adoption. Our installed populations of engines and air conditioners each account for about a percentage point of total world [GHG] emissions….

"My point is the biggest and shortest term impact on GHG emissions, which many hold to be the greatest sustainability problem we face, is reducing energy consumption by marked improvements in efficiencies of products installed. We have been at this for decades but it's clear there are huge improvements ahead for us and just about every other product category."

Chairman David has commented numerous times on climate change in speeches dating back to 1998.

Chief Environmental Officer	Rick Bennett, Vice President, Environment, Health and Safety
Levels to CEO	1
Climate Change Executive	None identified.

United Technologies has three company representatives who serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.

United Technologies Corp.

NYSE: ***UTX***
Industry: ***Industrial equipment***

Management Execution	*(continued)*
Executive Committee	None identified. For 75 years, the United Technologies Research Center has led UTC's effort to develop, then build, next-generation products. UTRC's strategic focus is on energy, environment, safety and security innovations.
Link to Executive Compensation	None identified.
Public Disclosure	***Score: 5***
Company Statement	*Congressional testimony by Robert H. Hobbs, Director, United Technologies Research Center, June 2005:* "UTC is constantly working to reduce the environmental footprint of our worldwide facilities and operations. We are accomplishing this objective directly by reducing [GHG] emissions produced by UTC operations and indirectly by developing and manufacturing products that use less energy and emit smaller amounts of greenhouse gases. We are driving pollutants in the manufacturing process down to their lowest achievable levels and reducing our energy consumption so less pollution is produced in the satisfaction of our energy needs… "Climate change is a growing dynamic in the global marketplace. We believe that setting goals for reduced energy consumption, which translates into lower [GHG] emissions, has already improved our bottom line performance by reducing production costs and allowing us to be more competitive. Lower energy costs and improvements in manufacturing processes are leaving us with more resources to devote to developing new and innovative products that address climate change and other environmental and energy problems. We are also keeping ahead of the curve on potential future climate change regulations by investing in [GHG] reductions now. We hope and trust that policymakers will recognize these early commitments to the climate change solution."
Securities Filings Statement	None identified.
Company Report	*UTC 2004 Corporate Social Responsibility Report*
GRI Report	None.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.
Emissions Accounting	***Score: 12***
Savings Calculated by Company	***Amount:*** 74,000 tonne reduction in annual CO_2e emissions ***Scope:*** Entity level ***Time frame:*** 2001–2004 UTC achieved these emissions reductions mainly as a result of energy efficiency improvements in manufacturing. Over the same period, UTC's revenues increased by 34%.
GHG Emissions Inventory	***2004 Amount:*** 2,077,420 tonnes of CO_2e ***Region:*** Global ***2000 Amount:*** 1,700,000 tonnes of CO_2e (approximate) ***Region:*** Global UTC says the 2004 inventory figure is likely to change, due to impacts from mergers, acquisitions and divestures, and minor changes to emission factors within the GHG Protocol. ***2004 Amount:*** .061 tonnes of CO_2e/$ of revenue ***Region:*** Global (intensity rate) ***2001 Amount:*** .072 tonnes of CO_2e/$ of revenue ***Region:*** Global (intensity rate)
Third Party Vertification	No.
Reporting Protocol	UTC has developed an internal protocol to provide continuity across multi-year goals, which is based on the GHG Protocol.

United Technologies Corp.

NYSE: ***UTX***
Industry: ***Industrial equipment***

Strategic Planning		***Score: 16***
Emissions Targets	***Baseline year:*** 2001 ***Target year:*** 2006 ***Region:*** Global (intensity rate) ***Amount:*** 16% decrease in CO_2e emissions rate (normalized to revenues) This target has been set as part of UTC's commitment to EPA's Climate Leaders program, which it joined in 2001. In 1997, UTC also set a goal to reduce its global energy consumption by 25% (normalized for revenues) by 2007. It subsequently raised that goal to a 40% reduction in energy use, on a revenue normalized-basis, and achieved that goal in 2005.
GHG Emissions Trading	None identified.
Green Power	See Commercial Business (fuel cells).
Energy Efficiency	UTC is a member of EPA's Energy Star and Combined Heat and Power programs. See also Commercial Business.
Commercial business: ***Elevators***	Otis Elevator is increasing the use of regenerative systems in its elevators from 1% of the product line in 2003 to 30% by 2007. Otis is also switching from geared systems for lower-rise elevators to permanent magnet gearless systems. This combination will reduce the net power requirements of these new Otis elevators installed worldwide by 70%.
Jet engines	A project with Hamilton Sundstrand systems contributed a 20% percent fuel efficiency gain in the new Boeing 787 over current-generation equipment.
Air conditioners	United Technology Research Center and Carrier are researching ways to reduce energy consumption in central air conditioning systems, which will assure that Carrier meets the new 30% increase in U.S. residential energy efficiency standards.
Hot water systems	Carrier has introduced a commercial hot water heater in Europe that operates by heat transfer rather than combustion and conduction. Energy efficiencies are four times higher.
Air purification	Carrier has introduced a system that cleans indoor air catalytically with the result that installed system capacities and their resulting energy loads can be reduced by about 25%, while providing quantitatively purer air.
Fuel cells	UTC Fuel Cells (a part of UTC Power) makes zero-emission hydrogen-powered fuel cells for space, commercial, transportation, and residential applications. The unit's fuel cells have provided the electrical power and drinking water for all U.S. manned space flights since 1966. It also makes fuel cell power plants that have been delivered to more than 200 customers. UTC Fuel Cells is providing hydrogen fuel cells for mass transit projects in California and has fuel cell buses in operation in Washington, D.C., and in Turin, Italy. UTC Power is also partnering with major automobile manufacturers including Nissan, Hyundai and BMW, as well as the U.S. Department of Energy, to develop fuel cell technology for cars and vehicle fleets.

Corporate Governance Profiles

Metals & Mining

Alcan Inc.

NYSE: ***AL***
Industry: ***Metals & mining***

Alcan believes that the use of aluminum in transportation and the recycling of primary aluminum have substantial positive impacts in mitigating GHG emissions, leading to increased business opportunities. It created an executive-level "TARGET Steering Team" in 2001 to embed energy efficiency and GHG emissions reduction goals throughout the company. Alcan achieved 2.9 million tonnes of GHG reductions in 2001–2004, and is evaluating new targets for 2006. Through recycling and continued improvements in developing energy efficient products, Alcan supports the goal of the aluminum industry to be carbon neutral by 2020 on a life-cycle basis.

Summary Score: 77

Company Information

Alcan is the second largest aluminum producer in the world and controls 13% of the world's aluminum production capacity, following the merger with Algroup in 2000 and the buyout of Pechiney in 2003. It mines bauxite (aluminum ore) and makes and recycles aluminum sheet, foil, wire and cable, as well as doors, windows and auto parts. Alcan also generates hydroelectric power and makes aluminum-related specialty chemicals and packaging products. It had annual sales in 2003 of $13.6 billion.

Contact Information

CEO / Chairman	Richard B. Evans / L. Yves Fortier
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Board Oversight

Score: 9

Board Committee	Environment, Health and Safety Committee
Committee Chair	Paul Tellier, former CEO of Bombardier (retired in 2004)
Actions Taken	The Environmental, Health and Safety Committee receives reports at least twice a year from EHS executives and the Sustainability Steering Team addressing environmental performance, including GHG emissions. The board has also formally approved the company's climate change policy.

Management Execution

Score: 15

Chairman Statement — *In a November 2005 press release:*

"Through our collective actions, Canadian business is demonstrating that it is possible to foster a reduction in greenhouse gases while maintaining competitive excellence, growth, and profitability. All governments and citizens, corporations and consumers have a responsibility to actively reduce [GHG] emissions to minimize the global impacts of climate change."

Engen has spoken publicly a number of times on the need to address climate change. His remarks above were made on behalf of a group of Canadian companies that participated in an Executive Forum on Climate Change hosted by Alcan in October 2005. These companies endorsed several actions, including:

- Launching a process and work plan to support development by 2008–2009 of a climate friendly post Kyoto (after 2012) regime that includes both developed and developing countries.
- Sending a clear political signal that the post-2012 regime will target development and deployment of low-carbon technology and will continue to develop market-based instruments, including the Kyoto mechanisms.
- Improving the operation of the Clean Development Mechanism.
- Making infrastructure investments to adapt to climate change.

Chief Environmental Officer	Daniel Gagnier, Senior Vice President, Corporate and External Affairs
Levels to CEO	0
Climate Change Executive	Paola Kistler, Environmental Director, GHG Reduction Program

Alcan says that GHG management is a "fully integrated component of Alcan's EHS systems." Gagnier and two other company representatives serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.

Alcan Inc.

NYSE: ***AL***
Industry: ***Metals & mining***

Management Execution *(continued)*

Executive Committee

Sustainability Steering Team

This steering committee, with advice from outside experts and stakeholders, prioritized eight key areas for work in 2004, one of which was climate change. The senior management steering committee oversees the sustainability program and is responsible for providing guidance and support. A group of representatives of the operational and functional organizations advises the team. Representatives from each of Alcan's business groups and the heads of its various corporate functions participate in the steering team, "with an overarching goal of ensuring Alcan's leadership position in sustainability by integrating the concept into the company's mainstream business strategy and culture."

Link to Executive Compensation

Alcan's executive performance award includes environment, health and safety objectives. The plan says that 10% of an executive officer's incentive compensation "is based on the achievement of the environmental, health and safety objectives as measured against pre-established targets." The board's environment, health and safety committee sets these objectives.

Public Disclosure ***Score: 11***

Company Statement

From company website and 2005 sustainability report:

"For Alcan, addressing the economic, social and environmental dimensions of climate change is directly related to the company's global competitiveness and preservation of its long-term license to operate." It says that the key challenges and opportunities presented by climate change are to continue:

- "process-related improvements (e.g., energy efficiency) to reduce [GHG] emissions from operations.
- to develop more efficient products, the use and disposal of which contributes to lower GHG emissions.
- efforts with other companies, governments and third parties to ensure that pragmatic and cost-effective solutions are found to reduce GHG emissions."

It concludes, "the future acceptability of its operations and products will be judged, in significant measure, by its ability to reduce the intensity of its greenhouse gas emissions." In this regard, it says, the goal of the industry is "to become climate neutral by no later than 2020 through the full life cycle assessment of its products." The discussion also highlights Alcan's progress in reducing GHG emissions relative to 1990 levels.

Securities Filings Statement

Excerpt from Form 10-K:

Alcan reviews its efforts to measure and manage GHG emissions since the 1990s and says that its systems are designed to minimize the risks of environmental liabilities. It says it has been successful in reducing GHG emissions "against voluntary and mandatory national targets," noting that since 1990 it has reduced perfluororocarbon (PFC) emissions by some 70%. It also refers investors to its sustainability report.

Company Report

Alcan Sustainability Report 2005

GRI Report

See above.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting ***Score: 20***

Savings Calculated by Company

Amount: 2,900,000 tonnes of CO_2 emissions annually ***Scope:*** Global
Savings Period: 2001–2004

Alcan's "TARGET" program, created in 2001, embeds an emissions reduction and energy efficiency philosophy throughout the company, and optimizes long-term, cost-effective reductions and ongoing reporting of GHG emissions. The program employs a moving baseline to allow for a comparison of reductions to a reference year, and allows for adjustments to reflect changes in the corporate mix through acquisitions, upgrades and other developments. Alcan notes that by 1999, it had already reduced annual emissions by about 12% in comparison with its 1990 performance-adjusted level, despite a 4% production increase of primary metals. Alcan has achieved substantial emission savings at its smelters and aluminua facilities, especially through the reduction of the "anode effect" in smelting that produces PFC emissions.

Alcan Inc.

NYSE: ***AL***
Industry: ***Metals & mining***

Emissions Accounting *(continued)*

GHG Emissions Inventory

2004 Amount: 41,200,000 tonnes of CO_2e ***Region:*** Global
1990 Amount: 24,800,000 tonnes of CO_2e ***Region:*** Global

Alcan's total emissions rose by 20 million tonnes in 2004, mainly because of acquisitions, particularly properties formerly owned by Pechiney. About 87% of Alcan's GHG emissions are related to operations in countries that are subject to emission constraints under the Kyoto Protocol.

2004 Amount: 166 tonnes of CO_2e/$10 sales ***Region:*** Global (intensity rate)
2002 Amount: 170 tonnes of CO_2e/$10 sales ***Region:*** Global (intensity rate)

Alcan's GHG intensity rate increased between 2003 and 2004 because of its acquisition of Pechiney sites, which use more carbon-based energy sources.

Third Party Vertification

Yes. Alcan says that third parties audit data on a country and regional basis. Alcan also participates in the World Economic Forum's Global Greenhouse Gas Register.

Reporting Protocol

International Aluminium Institute – Aluminum sector GHG Protocol (an addendum to the WRI GHG Protocol), as well as any country specific requirements.

Strategic Planning

Score: 22

Emissions Targets

None identified beyond 2005.

Alcan is in the process of setting a target for 2006. It is a member of different voluntary programs in all regions where it has major installations, including EPA's Climate Leaders program in the United States.

GHG Emissions Trading

Voluntary programs—Alcan is a member of the International Emissions Trading Association (IETA) and has been active in advising governments on a national level for the U.K. Emissions Trading Scheme and E.U. Emissions Trading Scheme.

Government programs—Aluminum smelters may be subject to Phase 2 of the E.U. Emissions Trading Scheme, which goes into effect in 2008. Alcan says it would benefit from the recognition of emission credits for early action in Canada, where it has achieved a 40% reduction in absolute GHG emissions and a 55% reduction in its GHG emissions intensity rate since 1990.

Green Power

Renewable energy sources accounted for 31% of Alcan's energy mix in 2004. About half of Alcan's primary smelting capacity is powered by company-owned energy sources, the majority of which is supplied by hydroelectric power. In 2004, hydropower provided 57% of all electricity used in Alcan's primary smelters worldwide, and most of its power needs in Canada.

Energy Efficiency

All Alcan sites are required to promote a systematic approach in resource management, including energy, through the effective use of management systems and through continuous performance improvement. Alcan continues to invest in the development of improved smelting technology with the goal of further reducing energy intensity by up to 20%. (See inert anode technology, below.)

Commercial Business: ***Fuel savings***

Aluminum is a light, strong, versatile metal that can improve fuel economy and reduce emissions in motor vehicles, trains and ships. Alcan estimates that 20 tonnes of GHG emissions can be saved for each tonne of aluminum replacing steel over the life of the application.

Recycling

Alcan says the most effective way to save waste and reduce emissions is through aluminum recycling. Recycling of aluminum requires only 5% of the energy and emissions otherwise associated with primary production. It is one of the very few materials that can economically be recycled back into its original product with no loss in quality. Within its life cycle approach, Alcan assesses the recycling rates of the main products and is involved in campaigns to increase the recycling rates in all markets.

Inert anode technology

Alcan says it continues to invest in the development of improved smelting technology to reduce anode effects and overvoltage, which result in PFC emissions and increased CO_2 emissions. This technology, while unproven, could reduce energy intensity of smelting production by an additional 20% and greatly reduce emissions of PFCs, a potent greenhouse gas.

Alcoa Inc.

NYSE: ***AA***
Industry: ***Metals & mining***

Alcoa was an early proponent of action to address climate change. It established an executive-level Climate Change Strategy Team in 1998. In 2003, Alcoa announced that it had achieved its 2010 target to reduce its direct GHG emissions 25% below its 1990 level. In 2004, Alcoa implemented a second-generation global GHG information system for facilities that collectively produce about 90% of its GHG emissions. Alcoa believes that increased use of aluminum—a strong, lightweight and reusable material—can increase fuel economy and reduce emissions in the transportation sector. Combined with enhanced recycling and energy efficiency efforts, Alcoa believes that the aluminum industry can become climate neutral by 2017. The company has set goals out to 2020 to increase its use of recycled aluminum to 50%.

Summary Score: 74

Company Information

Alcoa is one of the world's largest producers of alumina—aluminum's principal ingredient, processed from bauxite—and aluminum. Its operations include bauxite mining, alumina refining and aluminum smelting, and its products include alumina and its chemicals, automotive components, aluminum sheet for beverage cans, and aluminum for the aerospace and building sectors. Alcoa also makes fiber-optic cables, food service and flexible packaging products, and plastic closures. Alcoa is in a strategic alliance with the Aluminum Corporation of China. It had sales of $24.5 billion in 2004.

Contact Information

CEO / Chairman	Alain J.P. Belda
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Address	390 Park Avenue New York, NY 10022 USA

Board Oversight

Score: 6

Board Committee	Public Issues Committee
Committee Chair	Judith M. Gueron, Visiting Scholar, Russell Sage Foundation
Actions Taken	This committee, established in 2002, brings to the attention of the board as appropriate, "current and emerging political, social and environmental trends and public policy issues that may affect the business operations, performance or public image of the company," including climate change. In addition, it provides oversight of the company's reports on social and environmental issues under the Global Reporting Initiative.

Management Execution

Score: 16

CEO Statement	*At the 2001annual shareholders' meeting:* Belda announced that Alcoa had established a long-term environmental program based on sustainable development principles and had set ambitious environmental goals "that will guide the company's programs over the next 20 years." Among the goals announced was a 25% reduction in GHG emissions from 1990 levels by 2010. With success in developing inert anode technology, Belda said a 50% reduction might be achieved.
Chief Environmental Officer	Jake Siewert, Vice President, Environment, Health, Safety, Global Communications and Public Strategy
Levels to CEO	0
Climate Change Executive	Jake Siewert. Vince Von Son, Manager of Environmental Finance and Business Development, and Lee Califf, Manager of Government Affairs, also serve as company representatives for the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Climate Change Strategy Team Established in 1998, this team is comprised of executives from various units and departments of the company, and developed and promoted its position on climate change, including its targeted reductions in GHG emissions.
Link to Executive Compensation	Alcoa has formally linked environmental accountability with performance expectations and cash incentives for executives. Beginning in the mid 1990s, Alcoa aluminum smelters linked annual hourly and salary workforce compensation incentives to reducing the anode effect and associated perfluorocarbon (PFC) emissions. The practice is still used at some smelters.

Alcoa Inc.

NYSE: ***AA***
Industry: ***Metals & mining***

Public Disclosure

Score: 6

Company Statement

From company website:

Alcoa says that its "commitment to be a leader in addressing [GHG] emissions and climate change is nearly a decade old." It notes that as long ago as 1998, in a landmark address to the Aluminum Association, "Alcoa called on the industry to get out in front of climate change with proactive measures." It believes that the aluminum industry can be climate neutral by 2017 through recycling and energy efficiency efforts. It says it has taken a leadership position on the issue within its industry, because "the science may or may not be incomplete, but…if you get this one wrong, you don't get a second chance."

On regulation, Alcoa says that it "supports cooperative action by all countries that reduce emissions to levels that will prevent dangerous changes to the world's climate systems utilizing least-cost global actions; rely on an open international economic system that would lead to sustained economic growth and development in all countries; and encourage leadership from developed economies to enable all countries to contribute to effective management of [GHG] emissions." Alcoa supports "a comprehensive global approach to [GHG] emissions management that includes all sources and sinks, encompassing all sectors of all national and local economies," including "economically sound emission trading programs that also protect those who have taken early action to reduce emissions." In the United States, Alcoa has testified on behalf of the McCain-Lieberman bill (2003), called for a comprehensive national GHG registry (2005), and provided testimony on renewable energy incentives (2001).

Securities Filings Statement

No discussion.

Company Report

Alcoa 2004 Sustainability Report

GRI Report

See above.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 22

Savings Calculated by Company

Amount: 15,000,000 tonnes of CO_2e emissions annually ***Scope:*** Entity level

Alcoa's reduction of PFC and SF6 emissions total more than 15 million tonnes of CO_2 equivalent annually as compared to 1990 levels. As of 2004, direct CO_2e emissions are 12.9 million tonnes below 1990 levels.

GHG Emissions Inventory

2004 Amount: 37,600,000 tonnes of CO_2e ***Region:*** Global
1990 Amount: 50,500,000 tonnes of CO_2e ***Region:*** Global

These inventory values represent direct emissions of CO_2 and CO_2 equivalents from SF6 and PFC emissions. Alcoa also reports on indirect emissions from purchased electricity.

Third Party Vertification

Yes. Alcoa's global energy and environmental data collection system in conjunction with detailed data from two major facilities was verified by PriceWaterhouseCoopers in 2002. While a third party audit of all emissions data from all facilities has not been conducted, Alcoa has continued to invest in enhancing its internal reporting capabilities as part of its active management of GHG emissions. In 2004, Alcoa implemented a second-generation global GHG information system for those facilities that collectively account for approximately 90% of its GHG emissions. The system reports energy- and process-based GHG emissions on a monthly basis, pulling data directly from manufacturing information systems where possible. Alcoa is also a charter member of the World Economic Forum GHG Registry.

Reporting Protocol

Alcoa is actively involved in the development of global GHG accounting standards in conjunction with the World Business Council on Sustainable Development/World Resources Institute, the International Aluminium Institute, the International Standards Organization and the Intergovernmental Panel on Climate Change.

Alcoa Inc.

NYSE: ***AA***
Industry: ***Metals & mining***

Strategic Planning	***Score: 24***
Emissions Targets	***Baseline year:*** 1990 ***Target year:*** 2012 ***Region:*** Global ***Amount:*** 25% decrease in CO_2e emissions from operations Alcoa met this target in 2001 and and continues to hold GHG emissions below this threshold. Alcoa is a member of EPA's Climate Leaders program.
GHG Emissions Trading	***Voluntary programs***—None identified. Alcoa also says that it will evaluate and tap cooperative mechanisms to reduce greenhouse gases, including emissions trading schemes. One example is its 2002 voluntary agreement on GHG reductions with the government of Quebec. Alcoa actively provides feedback to assist governments in the design of emerging regulatory and emission trading structures. Alcoa engages directly with various government entities around the world and also with key stakeholders that influence policy such as the Pew Center on Global Climate Change. ***Government programs***—None identified.
Green Power	Since 1917, Alcoa has been committed to owning, operating, and continually improving its North American hydroelectric assets, which generate an average of 5.4 billion kilowatt hours of electricity each year. A $187 million upgrade using new turbine technology at Alcoa's Tapoco hydroelectric system in the U.S. will boost the generation capacity of individual turbines up to 37%, with no increase in water flow or environmental impacts. In November 2005, Alcoa's entire 350 MW Tapoco system was certified as an environmentally responsible, low-impact hydropower project by the Low Impact Hydropower Institute. Alcoa is a charter member of the Green Power Market Development Group, a collaboration of 13 leading corporations and the World Resources Institute that is dedicated to building corporate markets for green power. The group's goal is to develop corporate markets for 1,000 MW of new, cost competitive green power by 2010.
Energy Efficiency	In 2002, Alcoa established its Energy Efficiency Network based on a partnership with the U.S. Department of Energy. The network conducts energy efficiency surveys at its operating locations to identify areas of possible improvement. As of mid-2005, more than 50 plants had been assessed. The plants have confirmed nearly $80 million in annual savings potential. Captured sustainable annual savings are more than $20 million with additional projects being actively pursued.
Commercial Business: ***Fuel savings***	Aluminum is a light, strong, versatile metal that can improve fuel economy and reduce transportation-related emissions.
Recycling	Alcoa estimates that its beverage can recycling activities save an estimated 2 million tons of CO_2 each year compared to producing this aluminum from primary sources. In 2002, Alcoa set a goal to make 50% of its products from recycled aluminum by 2020, except for raw ingot that is sold directly to others.
Inert anode technology	During 2004, Alcoa continued work on new developments in inert anode technology and the pursuit of patent protection for these advanced technologies. It says it has made good progress, although some technical and cost hurdles remain to be overcome. If the technology proves commercially feasible, Alcoa believes it could convert its existing smelting facilities to this new technology, resulting in significant reduction in operating costs and GHG emission savings up to an additional 25%.

Anglo American PLC

NASDAQ / OTC Bulletin Board : ***AAUK***

Industry: ***Metals & mining***

Anglo American's response to climate change is led by three top-ranking executives. The company's chairman and CEO have also addressed the issue publicly. In 2003–04, Anglo American completed a survey of the risks and opportunities presented by climate change, especially as they relate to energy use. It has set a goal to improve the energy efficiency of its operations by 10% in 2004–2014, which translates into a 12% reduction in the company's GHG intensity rate. Anglo American has several projects underway that it believes will qualify for credits under the Kyoto Protocol's Clean Development Mechanism. Its activities and progress are updated annually in an annual sustainability report.

Summary Score: 56

Company Information	
	Anglo American owns stakes in producers of gold (51% of AngloGold Ashanti), platinum (75% of Anglo Platinum) and diamonds (45% of De Beers Consolidated). In addition, Anglo American has interests in paper and packaging goods (representing more than 20% of its sales), ferrous and base metals, and industrial minerals. It is also one of the world's largest coal miners. It had sales of $24.9 billion in 2004.

Contact Information	
CEO / Chairman	Anthony John Trahar / Mark Moody-Stuart
Contact	Tel: 44.20.7698.881 • Web: www.angloamerican.co.uk
Address	20 Carlton House Terrace London, United Kingdom SW1Y 5AN UK

Board Oversight	***Score: 5***
Board Committee	Safety & Sustainable Development Committee
Committee Chair	Chris Fay, former chairman, Shell UK (left that post in 1998)
Actions Taken	None identified on climate change or GHG controls.

Management Execution	***Score: 12***
CEO Statement	*At 2005 annual shareholders meeting:* "Another cross-Group project will be a drive to improve energy efficiency. We consume energy equivalent to a medium-sized country like Chile or Finland and we believe that there are cost, efficiency and environmental justifications for a major focus on improving performance in this area…. "In relation to coal, we are increasingly engaged in the debate around climate change issues. I do not doubt that coal will continue to play an important part in meeting the energy needs of much of the developing world. We believe that such growth will be increasingly dependent upon progress being made with clean coal technologies and we are working together with our customers in this area." Chairman Mark Moody-Stuart, the former chairman of Royal Dutch/Shell, has also spoken extensively about climate change and was an early corporate proponent of actions to control GHG emissions.
Chief Environmental Officer	John Groom, Head of Safety, Health and Environment
Levels to CEO	0
Climate Change Executive	In addition to Groom, Anglo American has a Head of Sustainable Development, Dorion Emmett, and a Head of Energy, Roger Wicks, who report to the CEO and share responsibility for climate change.
Executive Committee	See above.
Link to Executive Compensation	None identified.

Anglo American PLC

NASDAQ /
OTC Bulletin Board : ***AAUK***

Industry: ***Metals & mining***

Public Disclosure

Score: 7

Company Statement

From company website:

"We recognize that climate change is a real international and community concern and Anglo American commits itself to contribute to finding and implementing solutions to the challenges it poses. Amongst other actions, Anglo American will:

- Monitor and participate in international processes to consider ways of meeting the challenges of climate change;
- Seek to understand stakeholder concerns about climate change;
- Collaborate in research and development programs to address the challenges of climate change;
- Strive for efficient use of energy and reduce greenhouse gas emission intensities at its operations;
- Incorporate climate change considerations in its business planning and foster co-operation between its operations in managing greenhouse gas emissions; and
- Explore opportunities for the use of the market-based emissions reduction mechanisms proposed in the Kyoto Protocol."

Securities Filings Statement

None identified.

Company Report

Anglo American - Creating Enduring Value - Report to Society 2004

GRI Report

See above (in accordance).

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 15

Savings Calculated by Company

Amount: 2,300,000 tonnes of CO_2 ***Scope:*** Project level (Brazil) ***Time frame:*** 2006

As part of a project at Codemin, Brazil, Anglo American proposes to switch from the use of charcoal to woodchips from managed plantations as a reductant in the production of ferronickel. The project will result in forest carbon sequestration as well as improved energy efficiency.

Amount: 1,100,000 tonnes of CO_2 ***Scope:*** Project level (Australia) ***Time frame:*** 2006

In 2004, Anglo Coal Australia entered into an agreement for the long-term supply of methane from Anglo American's German Creek mine to a 32-megawatt power plant. The plant will be built, owned and operated on adjacent Anglo American land by an external company. The savings reflect the displacement of emissions from fuels that would otherwise be used to generate the equivalent amount of electricity.

GHG Emissions Inventory

2004 Amount: 31,000,000 tonnes of CO_2e ***Region:*** Global
2003 Amount: 29,000,000 tonnes of CO_2e ***Region:*** Global

In 2004, nearly half of these emissions came from indirect sources, such as purchased power. About 18% of these emissions were in countries subject to emissions controls under the Kyoto Protocol, including 1.9 million tonnes in the European Union.

Product Footprint

Anglo American estimates that its sale of 102 million tons of coal in 2004 resulted in approximately 206,000,000 tons of CO_2 emissions. It says the actual figure may vary according to the mix of coal used for the making of metals and coal used for heat and power generation. The company says that its other products "are used in many different ways that would make any estimation of the emissions associated with their use and disposal extremely difficult."

Third Party Vertification

Yes. KPMG audited the results from Anglo American's 2004 estimates of its GHG, along with other elements of its sustainability report.

Reporting Protocol

GHG Protocol

Anglo American PLC

NASDAQ /
OTC Bulletin Board : ***AAUK***

Industry: ***Metals & mining***

Strategic Planning	***Score: 17***
Emissions Targets	***Baseline year:*** 2004 ***Target year:*** 2014 ***Region:*** Global (intensity rate) ***Amount:*** 10% decrease in CO_2 emission rates from production Anglo American has also set a goal to improve its energy efficency by 12% over the period.
GHG Emissions Trading	***Voluntary programs***—Anglo American says it has "taken measures to ensure that emission reduction and Clean Development Mechanism (CDM) opportunities are identified and developed," and that it is "assessing the best way in which carbon credits might be procured, generated internally and transacted across the corporation." One energy efficiency project at Highveld is being submitted as a CDM project. In addition, biological sequestration is being assessed at the company's plantations and is the subject of a CDM project in Brazil. ***Government programs***—Anglo American has industrial minerals operations in the United Kingdom and pulp and paper mills in Austria, Sweden, Slovakia, the Czech Republic and Poland that are included in the E.U. Emissions Trading Scheme. It says its U.K. operations are well prepared, having been included in several sectoral negotiated agreements under the U.K.'s climate change levy." Its coal division is discussing joint responses with its customers in Europe, where these companies are now responding to National Assessment Plan provisions.
Green Power	Anglo American is working on several CDM projects that involve fuel switching, including using woodchips in place of charcoal in the smelting of ferronickel and the use of waste wood in place of coal for steam raising. It is also exploring the possibility of switching to wind power at its Lisheen mine in Ireland. Anglo American says its other businesses are also looking into using alternative fuels and renewable energy where it is cost-effective.
Energy Efficiency	In 2004, Anglo American says it systematically surveyed energy use across all of its operating divisions and identified many possibilities to improve energy efficiency. The survey suggested that projects offering a 10-year net present value saving in excess of $500 million could be obtained for a capital expenditure of $320 million. These include switching from using compressed air to electrical power and recovering waste heat from a number of company operations. The company has since set targets for energy efficiency improvements for all of its divisions and is exploring business proposals for these possibilities. It recently appointed a Head of Energy to focus additional efforts in this area.
Commercial Business	Anglo American says it is working with its customers on the development of clean coal technologies. It regards carbon capture and storage as an important long-term solution for coal-fired energy production. Toward this end, it is conducting a feasibility study for a coal-to-liquids project at Monash Energy in Australia. Its Australian coal operations already capture and utilize coal-bed methane.

BHP Billiton Ltd.

NYSE: ***BHP***
Industry: ***Metals & mining***

BHP Billiton has an internal carbon pricing protocol to incorporate climate change in its risk management and strategic planning decisions. It requires 40 sites that account for 96% of its GHG emissions to develop GHG management programs and energy conservation plans, which are reviewed annually. It has set targets to reduce the company's overall GHG intensity rate, and has exceeded targets set from 1995 through 2007. Its Energy Market Trading group is purchasing Clean Development Mechanism credits to couple with coal sales imported for its customers in Europe, and it is exploring the same option for selling coal and other carbon-intensive products in Japan. BHP is also involved in clean coal, carbon sequestration and methane capture projects. It reports annually on its progress through a sustainability report.

Summary Score: 63

Company Information

BHP Billiton is a dual-listed mining company. BHP Billiton Ltd. is based in Australia, with the other part of the company, BHP Billiton PLC, based in the United Kingdom. Although the two companies maintain separate listings, they are managed as a single entity and have the same management team and board of directors. The companies are among the world's largest producers of iron ore and coal. They also produce aluminum, base metals, diamonds, manganese, stainless steel, crude oil and natural gas. BHP Billiton Ltd. had $31.1 billion in sales in fiscal 2005, ending June 30.

Contact Information

CEO / Chairman	Charles Goodyear / Donald R. Argus
Contact	Tel: 61.3.9609.3333 • Web: www.bhpbilliton.com
Address	180 Lonsdale St Melbourne, Australia 3000 Australia

Board Oversight

Score: 6

Board Committee	Sustainability Committee
Committee Chair	David Brink, Chairman, Unitrans Limited
Actions Taken	None identified on climate change or GHG controls. The Sustainability Committee oversees all of the company's environmental, health and safety activities.

Management Execution

Score: 12

CEO Statement	*In February 2005 earnings conference call:* "With regard to Kyoto, that is an agreement between governments and that's for governments to decide and for the rest of us to manage our business around that." With regard to BHP, Goodyear said, "We have a target [to reduce the GHG intensity rate of emissions by 5%]. It started in 2005 and we're well on our way to meeting that target." He added, "We continue to do a number of things with regard to our businesses and working with our customers to improve our performance and opportunities around greenhouse gases… We invest in clean coal technology in Australia and the United States and we continue to identify ways we can contribute to lower [GHG] emissions, which is an important item for us."
Chief Environmental Officer	Charles Taylor, Vice President of Sustainable Development and Community Relations
Levels to CEO	1
Climate Change Executive	Charles Taylor Taylor has responsibility for corporate policy development that includes an internal shadow price for carbon and for related interactions with internal and external stakeholders. Also, at the corporate level, the Vice President of the Environment is responsible for ensuring that BHP's processes for measuring GHG levels are reliable and verified by external parties.
Executive Committee	Health, Safety, Environment and Community Forum This forum includes corporate representatives and environmental functional heads from each of BHP's business units. In addition, each customer sector group or business has a vice president of health, safety and environment who reports into the head of that business and has accountability for environmental standards and management in that business. For particularly carbon intensive businesses like Energy, Coal and Petroleum, the vice presidents of strategy are involved in climate change related strategic considerations, including impacts on long term trends in commodity prices, which are taken into account in investment evaluations and overall business planning.

BHP Billiton Ltd.

NYSE: ***BHP***
Industry: ***Metals & mining***

Management Execution *(continued)*

Link to Executive Compensation

Billiton says that executive remuneration is "directly linked" to financial and non-financial performance measures that include health, safety and environmental targets.

Public Disclosure ***Score: 12***

Company Statement *From company website:*

"BHP says that it "has reduced the greenhouse gas intensity of its operations in recent years, and its aluminum smelters and petroleum business are among the most energy and greenhouse gas efficient in the world." So that improvements continue, BHP is taking the following measures:

- **Intensity reduction target:** It aims to reduce the intensity of its GHG emissions, as measured by final product, including the purchase of electricity, of not less than 5% by 2007 based on a 2002 baseline.
- **Management plans:** BHP now requires all of its sites with emissions more than 100,000 tonnes of CO_2-equivalent per annum to have GHG and energy conservation management programs and plans.
- **Collaboration with customers:** Where relevant, BHP is assessing emissions over the life cycle of its products, including improving the energy efficiency in downstream consumption of its energy products. It is also developing knowledge and skills in emissions trading to better package the future fuel supply requirements of its customers.
- **Carbon pricing:** BHP requires that carbon pricing sensitivity analysis be undertaken as part of its investment decisions involving greenfield and, brownfield investment, as well as mergers and acquisitions, with related emissions of more than 100,000 tonnes of CO_2 equivalent per annum.
- **Research:** BHP is funding research and development efforts into low emissions technologies including geological sequestration.
- **Developing countries:** BHP is assessing opportunities to use the Kyoto Protocol's Clean Development Mechanism to reduce emissions reductions and promote sustainable development.

Securities Filings Statement *From Form 20-F:*

Billiton says that one of three "material uncertainties identified by management as key risks" to its business is "the regulation of [GHG] emissions and potential reductions in fossil fuel consumption per capita and general consumption associated with such regulation." It says, "It is uncertain at this stage how the Kyoto Protocol will affect our operations or customers. Although they have not ratified the Kyoto Protocol, the United States, Australia and certain other countries have announced a new agreement called the Asia-Pacific Partnership on Clean Development and Climate. The partnership sets out an agenda to identify mutual interest and commercial benefit as keys to addressing the challenge of climate change." Billiton also says that it is "actively involved within the aluminum industry to develop protocols for measurement and management of greenhouse gas as a consequence of aluminum production." It also says that it recognizes that "climate change is a challenge for [its coal division] and we are seeking to respond to this through supporting targeted research aimed at reducing [GHG] emissions and through active participation in the development of industry sustainability positions."

Environmental/Sustainability Report *A Sustainable Perspective - BHP Billiton Sustainability Report 2005*

GRI Report See above (in accordance).

Carbon Disclosure Project Answered questionnaire, permitted disclosure.

Emissions Accounting ***Score: 16***

Savings Calculated by Company

Amount: 12% reduction in GHG intensity rate ***Scope:*** Entity level (Australia)
Time frame: 1995–2000

As part of Australia's Greenhouse Gas Challenge Program, BHP achieved a 12% reduction in its GHG intensity rate in 1995–2000, exceeding its goal of a 10% reduction.

Amount: 2-3,000,000 million tonne cut in CO2e emissions ***Scope:*** Project level (Australia)
Time frame: 1995–2000

BHP's Carbon Steel Material's Illawarra Coal asset in Australia has begun a coal seam gas utilization project that captures methane to create electricity on a commercial basis.

BHP Billiton Ltd.

NYSE: ***BHP***
Industry: ***Metals & mining***

Emissions Accounting *(continued)*

GHG Emissions Inventory

2004/5 Amount: 52,000,000 tonnes of CO_2e ***Region:*** Global
2001/2 Amount: 47,000,000 tonnes of CO_2e ***Region:*** Global

BHP reports that 57% of its 2004 emissions came from purchased energy sources. Use of natural gas, distillate and fuel oil, coal and coke in production processes accounted for a further 26% of the total. About 30% of BHP's total emissions in 2004 were in countries subject to emissions controls under the Kyoto Protocol. BHP says it has been taking inventories of its GHG emissions since 1993.

2004/5 Amount: 4,776 tonnes of CO_2e/100 tonnes of coal (Queensland)
Region: Global (intensity rate)
2001/2 Amount: 4,264 tonnes of CO_2e/100 tonnes of coal (Queensland)
Region: Global (intensity rate)

2004/5 Amount: 1,641 tonnes of CO_2e/100 tonnes of aluminum ***Region:*** Global (intensity rate)
2001/2 Amount: 1,766 tonnes of CO_2e/100 tonnes of aluminum ***Region:*** Global (intensity rate)

Overall, BHP says its GHG intensity rate fell 10% in 2001–2005. The company says its has reduced the GHG intensity of aluminum smelting and copper and nickel refining through improvements in energy efficiency and process controls. The GHG intensity of its Queensland coal continued to increase, due to progressive mining of deeper seams requiring more energy per unit of production. BHP also reports intensity rates for petroleum, copper and nickel production.

Third Party Vertification

Yes. In 2005, URS Australia Pty. Ltd. conducted an independent review of data accuracy for all of BHP's health, safety, environment and community data, including GHG emissions.

Reporting Protocol

GHG Protocol

Strategic Planning

Score: 17

Emissions Targets

Baseline year: 2002 ***Target year:*** 2007 ***Region:*** Australia
Amount: : 5% decrease in GHG intensity rate

This target extends Billiton's commitment under Australia's GHG Challenge program. As of mid-2005, it had achieved a 10% reduction in GHG intensity relative to 2001/02, ahead of the 2007 target. A new company target for energy and GHG emissions is being designed and will be effective starting in 2007.

GHG Emissions Trading

Voluntary programs—Through its Energy Market Trading group, based in The Hague, Billiton has gained experience with carbon trading based in Europe as both a risk management technique and a way of capturing opportunities presented by development of the E.U. Emissions Trading Scheme. The company has been purchasing Clean Development Mechanism (CDM) credits and E.U. Allowances to couple with coal sales imported for customers in Europe.

Government programs—BHP Billiton won the 2005 Point Carbon award for the best trader in the E.U. Emissions Trading Scheme (voted on by market participants.)

Green Power

None identified.

Energy Efficiency

Billiton is implementing energy efficiency programs across its businesses. It requires 40 sites with annual GHG emissions greater than 100,000 tonnes of CO_2 equivalent to have energy conservation plans with specific targets. These sites account for 96% of the company's GHG emissions. The company's business excellence team is examining the potential of developing an energy management assessment tool to help these sites improve energy efficiency.

Commercial Business

Of the low emissions power generation technologies currently under research, Billiton believes integrated gasification combined cycle systems hold the most promise. Other technologies Billiton is reviewing to mitigate its customers' emissions include gasification, geological carbon sequestration and coal bed methane power generation. Billiton is contributing to Australia's first CO_2 injection and storage pilot project. It also believes its coal bed methane business has significant potential to deliver zero emissions power; it has projects underway in Australia, China and North America.

Mittal Steel Company NV

NYSE (ADR): ***MT***
Industry: ***Metals & mining***

Mittal Steel says it is "taking appropriate steps" to address climate change, including tracking emissions data back to 1990. However, it does not elaborate on these actions. It says its board of directors periodically reviews environmental, health and safety matters. It has not produced a sustainability report. *The company declined to comment on this profile.*

Summary Score: 14

Company Information	
	Mittal Steel is the largest steel producer in the world. It manufactures flat rolled and long steel products, which it sells to automobile and consumer appliance manufacturers. Mittal was formed in 2004 when publicly traded Ispat International (of which the Mittal family owned 70%) purchased Antilles-based LNM Holdings (wholly owned by the Mittals). It had sales of $22.2 billion in 2004. In January 2006, Mittal announced a hostile takeover bid of Arcelor, the world's second largest steel producer.
Contact Information	
CEO / Chairman	Lakshmi Mittal
Contact	Tel: 31-10-217-8800 • Web: www.mittalsteel.com
Address	Hofplein 20, 15th Fl. 3032 Rotterdam, The Netherlands
Board Oversight	***Score: 2***
Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls. Mittal says in its corporate governance statement that items placed before the board of directors include "among others...environment, health and safety related matters…"
Management Execution	***Score: 2***
CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.
Public Disclosure	***Score: 4***
Company Statement	*From 2004 annual report:* "Preparations for the start of the European Union's carbon emissions trading scheme [in 2005] were a major focus of attention in 2004." Mittal Steel said it "worked closely with a number of E.U. governments and industry bodies in advance of that date in helping prepare the national allocation plans for carbon emissions which form basis of the trading scheme." It says that these preparations "involved collecting not only current but historic data back to 1990, which is the reference starting point for the Kyoto Agreement." It concludes, "Mittal Steel will take appropriate steps in this respect."
Securities Filings Statement	*From Management Discussion & Analysis:* Same statement above.
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Not queried.

Mittal Steel Company NV

NYSE (ADR): ***MT***
Industry: ***Metals & mining***

Emissions Accounting	***Score: 2***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified. Mittal says that preparations for the E.U. Carbon Emissions Trading Scheme have "involved collecting not only current but historic data back to 1990."
Strategic Planning	***Score: 4***
Emissions Targets	None identified.
GHG Emissions Trading	***Voluntary programs***—None. ***Government programs***—See statement in Public Disclosure section.
Green Power	None identified.
Energy Efficiency	None identified.
Commercial Business	None identified.

Newmont Mining Corp.

NYSE: ***NEM***
Industry: ***Metals & mining***

Newmont Mining has a board environmental committee and has produced an inventory of its GHG emissions. It acknowledges in a sustainability report that its "mining operations require relatively large amounts of energy, particularly in transporting and processing ore." The company says it plans to control its GHG emissions by improving the energy efficiency of its operations. The only goal it has set is to reduce GHG emissions in Australia 20% by 2010. The company reports on these activities in an annual sustainability report. *The company declined to comment on this profile.*

Summary Score: 24

Company Information	
	Newmont Mining is a top gold producer and also mines copper, silver, and zinc. It has operations throughout North America and South America, in addition to facilities in Australia, Indonesia, New Zealand and Uzbekistan. It had sales of $4.5 billion in 2004.

Contact Information	
CEO / Chairman	Wayne W. Murdy
Contact	Tel: 303-863-7414 • Web: www.newmont.com
Address	1700 Lincoln St Denver, CO 80203-4500 USA

Board Oversight	***Score: 3***
Board Committee	Environmental, Health and Safety Committee
Committee Chair	James Taranik, Director of the Mackay School of Earth Sciences and Engineering, University of Nevada
Actions Taken	None identified on climate change or GHG controls.

Management Execution	***Score: 2***
CEO Statement	None identified.
Chief Environmental Officer	David Baker, Vice President, Environmental Affairs and Sustainable Development
Levels to CEO	0
Climate Change Executive	David Baker
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 6***
Company Statement	*From 2004 Sustainability Report:* "Newmont Mining says, "carbon dioxide emissions from burning fossil fuels contribute to climate change" and that its "mining operations require relatively large amounts of energy, particularly in transporting and processing ore." Newmont says that it recognizes that reducing its energy use and improving energy efficiency are "good for the environment," as well as its business.
Securities Filings Statement	None identified.
Company Report	*Newmont Mining – Now & Beyond 2004*
GRI Report	See above (in accordance).
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Newmont Mining Corp.

NYSE: ***NEM***
Industry: ***Metals & mining***

Emissions Accounting

Score: 8

Savings Calculated by Company
None identified.

GHG Emissions Inventory
2004 Amount: 4,500,000 tonnes of CO_2 ***Region:*** Global
2003 Amount: 4,380,000 tonnes of CO_2 ***Region:*** Global

The company breaks out the proportion of CO_2 emissions attributable to electricity, diesel, gasoline, LPG and explosives consumption. About 53% of these emissions are in countries subject to emissions controls under the Kyoto Protocol. It does not track emissions of other greenhouse gases.

Third Party Verification
The World Monitor Institute verifies data provided in Newmont Mining's GRI report.

Reporting Protocol
Newmont Mining derives its GHG emissions by referencing electricity emission factors of various countries, according to the United Nations Conference on Trade and Development.

Strategic Planning

Score: 5

Emissions Targets
Baseline year: Unclear ***Target year:*** 2010 ***Region:*** Australia
Amount: 31,000 tonne reduction in annual CO_2 emissions.

Newmont Australia accounts for 26% of the company's global CO_2 emissions. Newmont Australia is targeting a 20% reduction in its GHG emissions by 2010. It projects that 50% of the projects employed to achieve these savings will involve energy efficiency improvements, 25% will involve fuel substitution and 25% will involve renewable energy.

GHG Emissions Trading
None identified.

Green Power
See Emission Targets.

Energy Efficiency
Energy is Newmont's second highest operating cost, equal to 8.1% of total revenue.

Commercial Business
None identified.

Nippon Steel

Tokyo Stock Exchange: ***5401***
Industry: ***Metals & mining***

Nippon Steel's Environmental Management Committee coordinates the company's actions on climate change, and President Mimura has played a leading role in Japan's actions against global warming. In 2003, the company announced a long-term plan through 2030 that includes measures to address global warming. A key interim goal is to cut company energy use by 10% in 1990–2010, with comparable savings in GHG emissions. Nippon Steel is the largest energy consumer in Japan, accounting for 3–4% of total energy use. The company says it has already achieved the world's highest level of energy efficiency for manufacturing the raw material of steel. One of its three R&D objectives is "to apply technical expertise… and thereby reinforce energy-, environment- and recycling-related R&D, which will underpin the creation of a recycling-oriented society and address the problems associated with global warming." The company reports on its progress in an annual sustainability report.

Summary Score: 67

Company Information	
	Nippon Steel manufactures pig iron and ingots, steel bars, plates, sheets, pipes, and tubes, as well as specialty, processed, and fabricated steel products. Its operations include engineering, construction, chemicals, nonferrous metals, ceramics, electricity supply, information and communications, and urban development. It also provides energy, finance and insurance services. It had sales of $31.5 billion in 2004.
Contact Information	
CEO / Chairman	Akio Mimura/ Akira Chihara
Contact	Tel: 81-3-3242-4111 • Web: www.nsc.co.jp
Address	6-3 Otemachi 2-chome, Chiyoda-ku Tokyo, 100-8071 Japan
Board Oversight	***Score: 7***
Board Committee	Environmental Management Committee
Committee Chair	Vice President of Environmental Affairs (not identified)
Actions Taken	The Environmental Management Committee overseas and coordinates the company's actions on climate change. It reports to the company's Corporate Policy Committee and board of directors. Nippon Steel has 37 members that serve on its board of directors, all company employees, and a total of 16 board committees.
Management Execution	***Score: 12***
CEO Statement	*From 2004 Sustainability Report:* "Nippon Steel is addressing global warming through a medium- and long-term energy vision that stretches all the way to 2030… with 2010 serving as an important milestone. [This milestone calls for the company to reduce its energy consumption by 10% below 1990 levels by 2010.] …Thus far, we have achieved energy conservation by streamlining and serializing production processes. Now, we are turning our attention to waste heat recovery, which should lead to a reduction in the caloric consumption of heat. "Looking ahead, Nippon Steel, together with Arcelor, its European partner, and the International Iron & Steel Institute (IISI), is stepping up efforts to devise technological breakthroughs to provide solutions to global warming… We will also place importance on energy saving beyond steelmaking processes in order to benefit society as a whole. The first area of our focus is energy conservation achieved by users of our products through the introduction of products with added value and increased efficiency. The second is a global-level contribution by making our world-class energy-saving technologies available outside Japan… By transferring our energy conservation technologies to other nations [like China], we can slow down global warming. The third area of focus is energy conservation that transcends traditional boundaries. More effective utilization of unused energies and untapped by-products can be achieved through the coordinated efforts of all entities representing different industrial sectors in an industrial complex. This will ultimately result in energy conservation for the entire society."
Chief Environmental Officer	Vice President of Environmental Affairs (not identified)
Levels to CEO	0

Nippon Steel

Tokyo Stock Exchange: ***5401***
Industry: ***Metals & mining***

Management Execution	*(continued)*
Climate Change Executive	None identified. President Mimura is the chairman of the global warming task force of the Japan Business Federation and has played a leading role in Japan's actions against global warming.
Executive Committee	Environmental Management Committee. In addition, Nippon Steel has an Environmental Management Division as one of eight divisions, which reports to a Corporate Policy Committee and to the board of directors.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 7***
Company Statement	*From 2004 Sustainability Report:* "We believe we are in a position to make significant contributions in this area [to address global warming], as we can leverage our world-class environmental and energy-conserving technologies that we have developed. We can also draw on our past experience of successfully meeting challenges posed by pollution problems and the oil crises. Nippon Steel is making an all-out effort to ensure that the targets set out in the Voluntary Action Program for Environmental Protection by Steelmakers will be met. In the spheres of consumer products and transportation, where the level of CO_2 emissions is on the rise, Nippon Steel is trying to make a difference by focusing on immediate areas and issues including the production of eco-products as well as employee lifestyle reviews. Parallel efforts are being made on technological development relating to hydrogen, clean coal, CO_2 separation and storage and other energy technologies of the future that are receiving increasing attention."
Securities Filings Statement	None identified (addressing material effects of climate change.) In its 2004 annual report, Nippon Steel notes that "it was named by the Carbon Disclosure Project... as one of the 'best 50 companies' in the Climate Change Leadership Index..." and highlights its pledge to cut energy use by 10% below 1990 levels by 2010.
Company Report	*Nippon Steel Sustainability Report 2005*
GRI Report	See above.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 18***
Savings Calculated by Company	***Amount:*** 4,000,000 tonnes of CO_2 emissions annually ***Region:*** Global ***Savings Period:*** 1990–2004 Nippon Steel estimates that it achieved a 6.2% reduction in CO_2 emissions from energy savings over the period, while steel production increased 4%. Nippon also is tracking emissions savings from projects in China, India and elsewhere that could qualify for emission credits under the Kyoto Protocol's Clean Development Mechanism. Such projects include "coke dry quenching systems" that can achieve more than 100,000 tonnes in annual CO_2 savings.
GHG Emissions Inventory	***2004 Amount:*** 61,000,000 tonnes of CO_2 ***Region:*** Global ***1990 Amount:*** 65,000,000 tonnes of CO_2 ***Region:*** Global
Third Party Verification	No.
Reporting Protocol	None identified.

Nippon Steel

Tokyo Stock Exchange: ***5401***
Industry: ***Metals & mining***

Strategic Planning

Score: 23

Emissions Targets

Baseline year: 1990 ***Target year:*** 2010 ***Region:*** Global
Amount: Not to exceed 58,500,000 tonnes of annual CO_2 emissions

This 10% reduction in emissions is drawn from Nippon Steel's expressed goal of reducing energy use by 10% in 1990–2010. The company's initiatives through 2010 will center on currently available energy-conserving technologies, including the use of regenerative burners for improved furnace efficiency, higher performance waste heat recovery and the use of waste plastics.

GHG Emissions Trading

Voluntary programs—Nippon Steel says its deployment of advanced technologies has created opportunities to acquire CO_2 emission credits from emission reduction projects that qualify for credits under the Clean Development Mechanism and Joint Implementation schemes of the Kyoto Protocol. It has also contributed $10 million in funding through the Japan Iron and Steel Federation for Japan Greenhouse Gas Reduction Fund and the Bio Carbon Fund of World Bank.

Government programs—None.

Green Power

Nippon Steel launched a wind power generation project in Kitakyushu, Japan, in 2003, and has pledged to increase its use of solar power. The company also is involved in the development of clean energy based on gas-to-liquid technology and gasification plants for carbon-neutral lumber from tree trimmings, biomass and scrap building materials.

Energy Efficiency

Improving energy efficiency is the cornerstone of Nippon Steel's plan to control GHG emissions. Nippon Steel says it recycles and provides slag, by-products generated during the steel manufacturing process by converting them into materials for cement, roadbeds, aggregates concrete and materials for civil engineering. Nippon Steel is also taking logistic actions to reduce consumptioin of transportation fuels and improve loading ratios.

Commercial Business: ***Hydrogen***

Nippon Steel has long been involved in the development of a technology that enables the production of hydrogen energy out of coke oven gas, created in the ironmaking process. Nippon is participating in a test of the coal partial hydropryrolysis process, which allows production of a hydrogen-rich synthetic gas from coal at a high efficiency level. A pilot plant will be built and tested in 2006.

CO2 separation technology

Coal is a key resource in the steelmaking process, which involves the efficient removal of oxygen from iron ore. Carbon is used as a reducing agent. Nippon Steel and other producers are focused on achieving breakthrough technologies in carbon separation and capture to reduce CO_2 emissions.

Nucor Corp.

NYSE: ***NUE***
Industry: ***Metals & mining***

Nucor's board and management periodically review the company's position on environmental issues, including climate change, and proposed regulations. The company says it supports voluntary programs to reduce GHG emissions. It has not produced a GHG inventory or set targets to controls these emissions. Nucor produces steel by melting scrap metal in electric arc furnaces, a process that creates two-thirds less CO_2-equivalent emissions than produced by making steel from ore. Nucor says it is developing new technologies to cast and roll carbon steel sheet and to manufacture pig iron that could lead to further reductions in GHG emissions.

Summary Score: 21

Company Information	
	Nucor is the largest U.S. steel producer and the nation's largest recycler. It produces steel and steel products, including hot-rolled steel, cold-rolled steel, steel joists, and metal buildings, in its mini mills, almost entirely from recycled scrap steel. It had sales of $11.4 billion in 2004.

Contact Information	
CEO / Chairman	Daniel R. DiMicco / Peter C. Browning
Contact	Tel: 704-366-7000 • Web: www.nucor.com
Address	2100 Rexford Rd. Charlotte, NC 28211 USA

Board Oversight	***Score: 3***
Board Committee	Audit Committee
Committee Chair	Clayton Daley, Jr, Chief Financial Officer, The Procter & Gamble Company
Actions Taken	Nucor says that its board of directors periodically reviews the company's position on "environmental issues of public concern such as global climate change and proposed legislative and regulatory responses. The Board reviews management's efforts to affect and respond to such issues through research, analysis, educational efforts and participation in business and governmental programs." In addition, the Audit Committee meets "periodically with management and outside counsel to discuss the company's major financial risk exposures, including but not limited to legal and environmental claims and liabilities, risk management and other financial exposures, and the steps management has taken to monitor and control such exposures, including the Company's risk assessment and risk management policies."

Management Execution	***Score: 2***
CEO Statement	None identified.
Chief Environmental Officer	Steven Rowlan, General Manager, Environmental
Levels to CEO	0
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 3***
Company Statement	*From company website:*

"Few industries are as dependent upon carbon as the steel industry. Consequently, few industries discharge carbon dioxide (the primary greenhouse gas) in quantities comparable to the steel industry. Does this mean that the critics that claim the steel industry is a major global warming contributor are correct? No, surprisingly the steel industry has actually decreased its [CO_2] emissions during the last decade [by 23% below their 1990 levels]… The countries that have accepted the Kyoto Accord have agreed to reduce their [CO_2] emission to 6% below their 1990 levels. Based on that standard the Iron and Steel Industry has far exceeded even Kyoto expectations because we are have already reduced our emission almost four times more than that requirement…. Continuing to improve our environmental stewardship, Nucor has initiated an Energy and VOC intensity goal… that will continue to decrease our [GHG] emissions, increase our profitability and improve our environmental compliance we must all do our part. Finding ways to reduce carbon waste, use less energy, use less paint and still deliver the best quality product on time to our customers should be the goal of every Nucor employee."

Nucor Corp.

NYSE: ***NUE***
Industry: ***Metals & mining***

Public Disclosure	*(continued)*
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Not queried.
Emissions Accounting	***Score: 3***
Savings Calculated by Company	None identified. Nucor says the electric arc furnace technology it employs produces 67% less carbon equivalent emissions than produced by the predominant steelmaking technology utilized globally.
GHG Emissions Inventory	None identified.
Strategic Planning	***Score: 10***
Emissions Targets	None identified. Nucor says it is a strong supporter of the U.S. government's Climate VISION program, which seeks to voluntarily reduce the nation's GHG emissions intensity rate without sacrificing economic growth.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	Nucor says it is "one of the most efficient steel recyclers in the nation and continues to improve its own energy efficiency and to research and invest in new technology that could facilitate further reductions in [GHG] emissions from the steel making and recycling processes."
Commercial Business	On its website, Nucor says that it is developing three environmentally responsible technologies. It says that the technologies "demonstrate how Nucor has assumed a leadership role in creative ways that will both reduce the impact the company's [GHG] emissions would otherwise have on global climate change and make the company a more efficient and productive producer of steel and steel products." The technologies it described are: • **Castrip process:** "a strip casting process that drastically reduces the amount of energy and associated carbon emissions required to cast and roll carbon steel sheet by approximately 60% as compared to conventional sheet production processes." • **Sustainable pig iron project:** "a project in Brazil with a joint venture partner that will manufacture pig iron using a sustainable biomass carbon source... rapidly growing eucalyptus trees." • **HIsmelt project:** a project "designed to manufacture molten pig iron from waste iron ore and coal."

Phelps Dodge Corp.

NYSE: ***PD***
Industry: ***Metals & mining***

Phelps Dodge has not addressed climate change as a governance issue. The company's only disclosure, in its Form 10-K, is that its Columbian Chemicals subsidiary makes rubber products that may be subject to future GHG controls as part of the European Directive under the Kyoto Protocol. (However, the company announced a proposed sale of this subsidiary in November 2005.)

Summary Score: 6

Company Information	
	Phelps Dodge is among the world's leading producers of copper and is the largest producer of molybdenum-based chemicals and continuous-cast copper rod. Phelps Dodge operates six reportable production segments in the United States and three in South America. It had sales of $7.1 billion in 2004.

Contact Information	
CEO / Chairman	J. Steven Whisler
Contact	Tel: 602-366-8100 • Web: www.phelpsdodge.com
Address	1 N. Central Ave. Phoenix, AZ 85004-4414 USA

Board Oversight	***Score: 3***
Board Committee	Environmental, Health and Safety Committee
Committee Chair	William Post, Chairman, Pinnacle West Corp.
Actions Taken	None identified on climate change or greenhouse gas controls.

Management Execution	***Score: 1***
CEO Statement	None identified.
Chief Environmental Officer	S. David Colton, Senior Vice President and General Counsel
Levels to CEO	0
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 2***
Company Statement	None identified.
Securities Filings Statement	*From 2004 Form 10-K:* "The [European Union] and certain other countries are beginning to implement greenhouse gas (GHG) reduction plans for various industry segments to meet targets under the Kyoto Treaty. Carbon black production is not currently listed as an activity subject to the European Directive, but will likely be included by certain member states or specifically included in later lists. The initial step is to be identified as a potential GHG generating facility so that a GHG inventory can be developed, with GHG reduction targets ultimately being established by industry sector. Columbian continues to monitor this process. [Columbian is a Phelps Dodge subsidiary that makes carbon black additives for rubber, plastic and liquid products.] Because of the frequent changes in environmental laws and regulations and the uncertainty these changes create for us, we are unable to estimate reasonably the total amount of such expenditures over the longer term, but it may be material to our results of operations."
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Not queried.

Phelps Dodge Corp.

NYSE: ***PD***
Industry: ***Metals & mining***

Emissions Accounting		***Score: 0***
Savings Calculated by Company	None identified.	
GHG Emissions Inventory	None identified.	

Strategic Planning		***Score: 0***
Emissions Targets	None identified.	
GHG Emissions Trading	None identified.	
Green Power	None identified.	
Energy Efficiency	None identified.	
Commercial Business	None identified.	

United States Steel Corp.

NYSE: ***X***

Industry: ***Metals & mining***

United States Steel is a member of EPA's Climate Leaders program, but has not released an inventory of its GHG emissions or set any explicit targets to control them. It says it plans to continue to work through the American Iron and Steel Institute and other industry associations and partnerships to control its GHG emissions, employing additional energy efficiency measures. The American Iron and Steel Institute has set an industry goal to improve industry-wide energy intensity per ton of steel shipped by 10% in 2002–2012. U.S. Steel's only statement on climate change is that domestic controls on GHG emissions are "unlikely" in the near future and that the effects of international actions are "uncertain." It has not issued a sustainability report.

Summary Score: 20

Company Information

United States Steel produces sheet and semi-finished steel, tubular and plate steel, and tin products and offers services such as mineral resource management, real estate development, engineering and consulting. It had sales of nearly $14 billion in 2004.

Contact Information

CEO / Chairman	John P. Surma / Thomas J. Usher
Contact	Tel: 412-433-1184 • Web: www.ussteel.com
Address	600 Grant St. Pittsburgh, PA 15219-2800 USA

Board Oversight

Score: 3

Board Committee	Corporate Governance & Public Policy Committee
Committee Chair	J. Gary Cooper, Chairman, Commonwealth National Bank (retired)
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 7

CEO Statement

On behalf of the American Iron and Steel Institute in May 2005:

"As part of our industry's Climate VISION agreement with the Department of Energy, we set a goal to improve energy intensity per ton of steel shipped by 10% by 2012 compared to the 2002 baseline. The 2003 data show we are making solid headway toward achieving that target."

As Chairman of the American Iron and Steel Institute, Surma reported that the U.S. steel industry had reduced its energy intensity per ton of steel shipped by about 7% in 2003 compared to 2002, and by 23% since 1990. Because of the close relationship between energy use and GHG emissions, the industry's aggregate CO_2 emissions per ton of steel shipped were reduced by a comparable amount over the period, Surma said.

Chief Environmental Officer	S.K. Todd, Vice President-Law & Environmental Affairs
Levels to CEO	2
Climate Change Executive	None identified.
Executive Committee	Executive Environmental Committee
Link to Executive Compensation	The company's senior executive officer annual incentive compensation plan "provides for awards based on pre-established performance measures specifically related to income from operations, steel shipments, worker safety, workforce diversity, environmental emissions improvements and common stock performance." For each performance measure, "the applicable portion of the bonus is only awarded if performance reaches the minimum, or threshold, level for that measure."

United States Steel Corp.

NYSE: ***X***
Industry: ***Metals & mining***

Public Disclosure		***Score: 4***
Company Statement	None identified, except for Form 10-K below.	
Securities Filings Statement	*From 2004 Form 10-K:* "The company states that the Kyoto Protocol, "which would have required restrictions on [GHG] emissions in the United States, has not been ratified by the U.S. Senate, and it appears unlikely that it will be implemented domestically in the near future." It adds, "It is unclear what international action will be taken concerning greenhouse gases or the economic impact of such programs; however, inter-government discussions continue." Its 10-K also reviews a dispute that its subsidiary, U.S. Steel Koice (USSK), has with the Slovakian government over its CO_2 allowances under the European Commission's compliance plan for the Kyoto Protocol.	
Company Report	None identified. U. S. Steel participated in a sustainability report issued by the International Iron & Steel Institute for 2004.	
GRI Report	None identified.	
Carbon Disclosure Project	Not queried.	

Emissions Accounting		***Score: 1***
Savings Calculated by Company	None identified.	
GHG Emissions Inventory	None identified.	

Strategic Planning		***Score: 5***
Emissions Targets	None identified. U.S. Steel has not set any GHG reduction targets other than to support the American Iron and Steel Institute's voluntary commitment to reduce the sector-wide GHG intensity by 10% per ton of steel shipped in 2002–2012. The company has not established any targets through its participation in EPA's Climate Leaders program.	
GHG Emissions Trading	None identified.	
Green Power	None identified.	
Energy Efficiency	U.S. Steel is a member of EPA's Combined Heat and Power program	
Commercial Business	None identified.	

Corporate Governance Profiles

Forest Products

Abitibi-Consolidated

Toronto Stock Exchange : ***A***
Industry: ***Forest products***

Abitibi-Consolidated says it is committed to the sustainability of the natural resources in its care. It has reduced its GHG emissions by 37% below 1990 levels as of 2004. Along with other members of the Forest Products Association of Canada, Abitibi has signed an agreement with the Government of Canada supporting a voluntary industry commitment to further reduce its GHG emission intensity by an average of 15% in 2000–2010. The company has developed a global strategy to address GHG emission reductions and plans to continue to reduce energy consumption and GHG emissions through fuel switching, energy efficiency projects and technology optimization.

Summary Score: 45

Company Information

Abitibi-Consolidated is a leading producer of newsprint and commercial printing papers as well as a major supplier of wood products. It owns or is a partner in 50 paper mills, sawmills and remanufacturing facilities and serves customers in 70 countries. It is also responsible for managing approximately 40 million acres of woodlands. Abitibi is the largest recycler of newspapers and magazines in North America. It had sales of $5.8 billion in 2004.

Contact Information

CEO / Chairman	John W. Weaver / Richard Drouin
Contact	Tel: 514-875-2160 • Web: www.abitibiconsolidated.com
Address	1155 Metcalfe St Suite 800 Montreal, Quebec, CANADA H3B 5H2 Canada

Board Oversight

Score: 6

Board Committee	Environmental, Health & Safety Committee
Committee Chair	Lise Lachapelle, Consultant and former CEO of the Canadian Pulp and Paper Assn.
Actions Taken	Periodic review of status and climate change strategy.

Management Execution

Score: 7

CEO Statement	None identified.
Chief Environmental Officer	Francine Dorion, Vice President, Sustainability and Environment
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	A committee of vice presidents and managers serves on an internal climate change committee. Its work is reviewed by top management and the board's Environment, Health & Safety Committee.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 5

Company Statement *From 2004 Sustainability Report:*

"The Kyoto Protocol, ratified by the Canadian government, aims to significantly reduce greenhouse gas emissions (GHG) by 2012. Abitibi-Consolidated has surpassed Canada's Kyoto commitment to reduce GHG to 6% below the 1990 levels between the years 2008–2012.

"We have already reduced GHG emissions by 37% below 1990 levels. It is all the more impressive when one considers that these achievements have been made during a time where production has increased by 15%. This means that our GHG intensity has been reduced by 45% (measured in kg CO_2 equivalent/ tonnes of production). We will continue to reduce energy consumption and GHG production through fuel switching, energy efficiency projects and technology optimization….

"Further [GHG] reduction objectives for the industry: Along with members of the Forest Products Association of Canada, Abitibi-Consolidated was part of the first group of companies to sign a Memorandum of Understanding with the Government of Canada supporting an industry commitment to further reduce its GHG emission intensity by an average of 15% [in 2000–2010].

"The United Kingdom has also signed on to the Kyoto accord, and our Bridgewater mill has already reduced its GHG emissions to almost zero."

Abitibi-Consolidated

Toronto Stock Exchange : ***A***
Industry: ***Forest products***

Public Disclosure	*(continued)*
Securities Filings Statement	None identified.
Company Report	Sustainability Report (2004)
GRI Report	The company uses GRI as a reference for development of key indicators and public reporting.
Carbon Disclosure Project	Not queried.

Emissions Accounting	***Score: 11***
Savings Calculated by Company	***Amount:*** 37% reduction in CO_2e ***Region:*** Global ***Time frame:*** 1990–2004
GHG Emissions Inventory	***2004 Amount:*** 262 kg CO_2/tonne product ***Region:*** Canada (intensity rate) ***2004 Amount:*** 365 kg CO_2/tonne product ***Region:*** Global (intensity rate) ***1994 Amount:*** 476 kg CO_2/tonne product ***Region:*** Canada (intensity rate) These inventory figures reflect emissions from company paper mills.
Third Party Vertification	Yes, through the Chicago Climate Exchange.
Reporting Protocol	Chicago Climate Exchange Rulebook and GHG Protocol.

Strategic Planning	***Score: 16***
Emissions Targets	***Baseline year:*** 2000 ***Target year:*** 2010 ***Region:*** Canada ***Amount:*** 15% decrease – CO_2 kg /tonne of product Energy costs equal 2% of the costs of goods sold. Cost of petroleum-derived packaging materials adds another 4% to the costs of goods sold.
GHG Emissions Trading	***Voluntary programs***—Chicago Climate Exchange and U.K Emissions Trading Scheme. ***Government programs***—None.
Green Power	Fuel switching—"We have increased biomass usage by replacing fossil fuels with carbon neutral biofuels. Since 1990, we have increased the volume of biomass used as an energy source from 18% to 25%, and likewise have reduced our consumption of fossil fuels."
Energy Efficiency	"We have executed high return energy-efficiency projects, such as steam recovery from the thermo-mechanical pulping process at our Baie-Comeau operations… We benchmark like processes for their energy efficiency, and if we determine that a specific division has an opportunity to improve vis-à-vis another division's performance, we then use a team-based problem-solving approach to identify and address the weaknesses."
Commercial Business	Abitibi-Consolidated is the largest recycler of newspapers and magazines in North America, serving 23 metropolitan areas in Canada and the United States.

Georgia-Pacific Corp.

Privately held

Industry: ***Forest products***

Georiga-Pacific (GP) created a climate change task force in 1998 to develop a GHG emissions inventory system. It has conducted GHG inventories in 2000 and 2002. A third party verified its 2002 data, but it has not been publicly disclosed. GP says that it has reduced its total GHG emissions by 14.5% since 2000. The company says it is in the process of developing a combined strategy and goals for energy consumption and GHG emissions reduction. GP evaluates energy efficiency opportunities in all capital requests. It derives more than half of its energy needs from biomass fuels. It published a social responsibility report in 2004.

Summary Score: 26

Company Information

Georgia-Pacific (GP) is the world's largest producer of tissue products and the second largest producer of forest products. GP focuses on consumer products, building products (plywood, lumber, OSB, gypsum wallboard, particleboard, adhesives), and bleached pulp and paper. It had sales of almost $20 billion in 2004. It was acquired by privately held Koch Industries in 2005.

Contact Information

CEO / Chairman	Alston D. Correll Jr.
Contact	Tel: 404-652-4000 • Web: www.gp.com
Address	133 Peachtree St NE Atlanta, GA 30303-1847 USA

Board Oversight

Score: 2

Board Committee	Audit Committee
Committee Chair	M. Douglas Ivestor, President, Deer Run Investments
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 7

Chairman Statement	None identified.
Chief Environmental Officer	James Bostic, Executive Vice President, Government Affairs, Environmental & Administrative Services
Levels to CEO	1
Climate Change Executive	Steve Klinger, Executive Vice President, Packaging Sergio Galeono, Senior Manager, Product Policy and Assurance, and Keith Bentley, Vice President, Environmental Affairs, serve as company representatives for the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Environmental Affairs & Climate Change Task Force This task force was created under the auspices of an executive-level Environmental Policy Committee in 1998. Its primary objective has been to develop and maintain a company-specific GHG inventory system based on the GHG Protocol, with a baseline set in 2000. Sergio Galeono chairs this task force.
Link to Executive Compensation	The company considers environmental stewardship as one of the criteria for executive compensation.

Georgia-Pacific Corp.

Privately held
Industry: ***Forest products***

Public Disclosure

Score: 5

Company Statement — *From company website:*

"As a major international corporation, Georgia-Pacific believes that global climate change is occurring. This is why we are a member of the Business Environmental Leadership Council (BELC) of the Pew Center on Global Climate Change. The Pew Center is an independent non-profit, non-partisan organization focused on providing credible information about global climate change and innovative ways to address the issue. As a member of the BELC, Georgia-Pacific joins more than 30 other companies that support public/private partnerships to address global climate change in a constructive way.

"Georgia-Pacific believes that any actions on this issue should be cost effective, global and equitable, and allow for economic growth. As part of our involvement with the Pew Center, we are assessing opportunities for emission reductions, for establishing and meeting reduction objectives, and for investing in new, more efficient products, practices and technologies in the United States and in other countries where we have operations… We have established a protocol for measuring our greenhouse gas emissions and are in the process of conducting an inventory. The guidance contains the principles, inventory boundaries, selection of base year and baseline and its adjustments, calculation methodology, reporting categories and other requirements."

Securities Filings Statement — None identified.

Company Report — *2004 Corporate Social Responsibility Report*

GRI Report — See above.

Carbon Disclosure Project — Not queried.

Emissions Accounting

Score: 6

Savings Calculated by Company — ***Amount:*** 102,000 tons of CO_2e ***Scope:*** Project level ***Time frame:*** Annually

A new biomass boiler at GP's Old Town, Maine, mill has displaced fuel oil and purchased electricity with a subsequent reduction of direct GHG emissions of 102,000 tons of CO_2 equivalents per year.

GHG Emissions Inventory — GP conducted GHG inventories in 2000 and 2002, but has not publicly disclosed its results. It says that it has reduced its total GHG emissions by 14.5% since 2000.

Third Party Certification — Yes, provided by First Environment, an environmental consulting firm.

Reporting Protocol — GP has established a reporting mechanism based on the GHG Protocol.

Strategic Planning

Score: 6

Emissions Targets — None identified.

The company says it is "presently devloping a combined strategy and goals for energy consumption and GHG emission reduction."

GHG Emissions Trading — ***Voluntary programs***—None.

Government programs—GP has facilities in Europe subject to the E.U. Emissions Trading Scheme.

Green Power — On-site generated or purchased biomass fuels provided 56% of GP's energy needs in 2003, up from 52% in 2002. GP is a member of the U.S. EPA Green Power Partnership, which is committed to securing at least 2% of energy supply from renewables.

Energy Efficiency — GP reduced total purchased energy use by nearly 2% in 2003. GP recently modified its capital request form (CAPMOD) to explicitly provide energy efficiency evaluation of any capital request so that energy efficiency can be factored with other approbation indicators. GP provides many examples of how it has achieved energy savings. Twelve GP packaging plants have switched to more efficient lighting systems, with $625,000 in energy savings. Other energy-saving projects include modifications to preheating equipment in boiler feed water systems, changes in glue resins to lower temperature requirements for thermosetting and greater use of insulation and heat exchangers. GP is a member of EPA's Energy Star program.

Commercial Business — None identified.

International Paper Co.

NYSE: ***IP***
Industry: ***Forest products***

International Paper (IP) has an internal committee comprised of senior executives that reviews its polices on climate change and other environmental issues; this work is overseen at the board level by its Public Policy and Environment Committee.
As part of EPA's Climate Leaders program, IP plans to reduce absolute GHG emissions by 15% in 2000–2010. It was the first forest products company to join the Chicago Climate Exchange and participates in a number of other emissions trading programs. It says it has assembled an interdisciplinary team from around the world to develop cooperative climate change strategies, both internally and externally, with a wide range of international organizations.

Summary Score: 49

Company Information

International Paper is a global forest products, paper and packaging company whose primary markets include the United States, Europe, the Pacific Rim and South America. It had sales of $25.5 billion in 2004.

Contact Information

CEO / Chairman	John V. Faraci
Contact	Tel: 203-541-8000 • Web: www.internationalpaper.com
Address	400 Atlantic Street Stamford, CT 06921-3512 USA

Board Oversight

Score: 6

Board Committee	Public Policy and Environment
Committee Chair	W. Craig McClelland, former Chairman, Union Camp (retired 1999)
Actions Taken	The board reviews emissions data annually, including CO_2 emissions, submitted by the Climate Change Task Force.

Management Execution

Score: 9

CEO Statement	None identified.
Chief Environmental Officer	Thomas Jorling, Vice President, Environmental Affairs
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	Climate Change Task Force This task force, launched in 2002, is comprised of senior executives. It reviews IP's climate change and other environmental policies and reports to the board of directors.
Link to Executive Compensation	IP considers environmental performance as a compensation criterion for senior executives, operating managers and other employees.

Public Disclosure

Score: 6

Company Statement	*From company website:* "We believe industry should play an important role in worldwide efforts to reduce [GHG] emissions and that reductions can be effectively achieved if market-based approaches are integral to the efforts to counteract climate change. In response to this global challenge, International Paper has taken on numerous activities to make a difference in key areas. These areas include tracking and reporting of [GHG] emissions, developing voluntary goals to reduce emissions, and supporting [GHG] trading programs."
Securities Filings Statement	None identified.
Company Report	*The Nature of Our Business: International Paper Sustainability Report 2002/2003*
GRI Report	See above (in accordance).
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

International Paper Co.

NYSE: ***IP***
Industry: ***Forest products***

Emissions Accounting

Score: 12

Savings Calculated by Company

Amount sequestered: 26,000,000 tonnes of CO_2 ***Scope:*** Entity level
Time frame: Not defined

International Paper owns and leases 20 million acres of forestland worldwide, which it says makes them "one of the most effective carbon-absorbing, oxygen-producing resources on earth." Biomass energy production, which is carbon neutral, is the primary source of power for its mills.

GHG Emissions Inventory

2002 Amount: 16,200,000 tonnes of CO_2 ***Region:*** Global
1998* Amount: 14,700,000 tonnes of CO_2 *(*1998–2001 baseline average)*

Third Party Vertification

No.

Reporting Protocol

GHG Protocol.

Strategic Planning

Score: 16

Emissions Targets

Baseline year: 2000 ***Target year:*** 2010 ***Region:*** Global
Amount: 15% decrease in absolute GHG emissions

International Paper set this goal as a charter member of EPA's Climate Leaders program.

GHG Emissions Trading

Voluntary programs—International Paper was the first paper and forest products company to join the Chicago Climate Exchange. It is also a member of the International Emissions Trading Association and has also partiticpated in the U.K. Emissions Trading Scheme.

Government programs—International Paper has facilities in Europe that are subject to the E.U. Emissions Trading Scheme.

Green Power

Biorenewable and self-generated fuels resulting from wood processing accounted for nearly 66% of IP's total fuel consumption for U.S. mills.

Energy Efficiency

International Paper is a member of EPA's Combined Heat and Power program.

Commercial Business

Nearly all of IP's forest and paper products are recyclable and biodegradable.

MeadWestvaco Corp.

NYSE: ***MWV***
Industry: ***Forest products***

MeadWestvaco has two company executives that oversee the company's response to climate change; they report on the subject to the board's Safety, Health & Environment Committee. The company is a founding member of the Chicago Climate Exchange, whose participants target a 4% reduction in absolute GHG emissions by 2006 (relative to a 1998–2001 baseline). MeadWestvaco believes that GHG reduction goals are best met through voluntary initiatives, which include forests' ability to sequester carbon. The company reports in a sustainability report that it has reduced its GHG intensity rate by nearly 8% in 2001–2003, but it has not disclosed its absolute emission levels.

Summary Score: 31

Company Information	
	MeadWestvaco produces packaging that accounts for 72.5% of its sales. It also makes school supplies and consumer office products and specialty chemicals. The company owns or leases about 1.4 million acres of timberland. It operates in 29 countries and covers markets in about 100 nations. It had sales of $6.1 billion in 2004.
Contact Information	
CEO / Chairman	John A. Luke Jr.
Contact	Tel: 203-461-7400 • Web: www.meadwestvaco.com
Address	World Headquarters, One High Ridge Park Stamford, CT 06905 USA
Board Oversight	***Score: 4***
Board Committee	Safety, Health and Environment
Committee Chair	Dr. Thomas Cole, Jr., President Emeritus since 2002 and President, Clark Atlanta University.
Actions Taken	None identified on climate change or GHG controls.
Management Execution	***Score: 7***
CEO Statement	None identified.
Chief Environmental Officer	Richard Burton, Vice President, Safety, Health and Environment
Levels to CEO	1
Climate Change Executives	Burton, and Mark Watkins, Senior Vice President for Forestry and Technology.
Executive Committee	Climate Change Committee. This committee, co-chaired by Burton and Watkins, reports to the company's Leadership Team.
Link to Executive Compensation	The company says corporate sustainability goals, including safety and environment, are factors in executive compensation.
Public Disclosure	***Score: 4***
Company Statement	*From Stewardship and Sustainability Report (issued 2003):* "MeadWestvaco believes that greenhouse gas emissions are best addressed through voluntary initiatives like the Chicago Climate Exchange."
Securities Filings Statement	None identified.
Company Report	*MeadWestvaco Stewardship and Sustainability Report* (issued 2003 and 2004)
GRI Report	See above.
Carbon Disclosure Project	Not queried.

MeadWestvaco Corp.

NYSE: ***MWV***
Industry: ***Forest products***

Emissions Accounting		***Score: 8***
Savings Calculated by Company	None identified.	
GHG Emissions Inventory	***2003 Amount:*** 1.32 tonnes of CO_2 per tonne of product ***2001 Amount:*** 1.43 tonnes of CO_2 per tonne of product MeadWestvaco does not disclose its absolute emissions of greenhouse gases.	***Region:*** U.S. (intensity rate) ***Region:*** U.S. (intensity rate)
Third Party Vertification	Yes. The company's forest carbon sequestration is verified by an audit conducted by BVQi (the designated verifier for the Chicago Climate Exchange).	
Reporting Protocol	Chicago Climate Exchange (CCX). The BVQi audit is reviewed by NASD for CCX. NASD verifies the company's facilities carbon emissions directly for CCX.	

Strategic Planning		***Score: 8***
Emissions Targets	***Baseline year:*** 1998-2001 average ***Amount:*** 4% decrease in absolute CO_2 emissions This reduction reflects MeadWestvaco's participation in the Chicago Climate Exchange. The company also participates in the Business Roundtable's Climate RESOLVE initiative and the American Forest & Paper Association's Climate VISION Commitment, both of which have established organizational goals to voluntarily reduce the intensity rate of GHG emissions by 12% in 2002–2012.	***Target year:*** 2006
GHG Emissions Trading	***Voluntary programs***—MeadWestvaco is a founding member of the Chicago Climate Exchange. It supports market-based voluntary emissions management programs. ***Government programs***—None.	
Green Power	Biomass, or wood-based residues, provided 62% of the company's total energy use for papermaking in 2004.	
Energy Efficiency	Combined heat and power systems provided more than 70% of total electricity requirements at the company's four fully integrated pulp and paper mills that had self-generation facilities in 2004.	
Commercial Business	None identified.	

Weyerhaeuser Co.

NYSE: ***WY***
Industry: ***Forest products***

Weyerhaeuser has a Climate Change Direction Setting Team that guides policy development and recommends priorities and positions on climate change to the company's corporate Environment, Health and Safety Council and senior management. At the board level, the Corporate Governance Committee has oversight of the company's environmental issues. In 2004, Weyerhaeuser published a "Roadmap for Sustainability" report that includes data for the company's first GHG inventory. Weyerhaeuser says its operations—including forests and products—sequester far more carbon than the company emits. It cites analyses that wood-framed homes provide a substantial energy and greenhouse gas benefit over similar homes constructed with concrete and steel structures. Weyerhaeuser supports the Business Roundtable's Climate RESOLVE initiative and the American Forest & Paper Association's Climate VISION Commitment, both of which have established organizational goals to voluntarily reduce the intensity rate of GHG emissions by 12% in 2002–2012.

Summary Score: 35

Company Information

Weyerhaeuser is primarily involved in growing and harvesting timber, manufacturing forest and paper products and real estate development and construction. Its major markets include the United States and Canada. It had sales of $20.2 billion in 2004.

Contact Information

CEO / Chairman	Steven R. Rogel
Contact	Tel: 253-924-2345 • Web: www.weyerhaeuser.com
Address	PO Box 9777 Federal Way, WA 98063-9777 USA

Board Oversight

Score: 2

Board Committee	Corporate Governance Committee
Committee Chair	Richard Haskayne, Chairman, Transcanada Corporation
Actions Taken	None identified on climate change or GHG controls

Management Execution

Score: 7

CEO Statement	None identified.
Chief Environmental Officer	Sarah Kendall, Vice President, Environment, Health & Safety
Levels to CEO	1
Climate Change Executive	Robert Prolman, Director of International Environmental Affairs Prolman and two other company representatives serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	Climate Change Direction Setting Team This team guides policy development and recommends priorities and positions on climate change issues to the company's corporate Environment, Health and Safety Council and the company's senior management. Responsibility for carrying out designated climate-related tasks is delegated to a team of policy, technical/scientific and financial managers led by Prolman.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 7

Company Statement — *Response to 2005 Carbon Disclosure Project:*

"Weyerhaeuser continues to recognize global climate change as an important international issue. During 2004, Weyerhaeuser Company increased its engagement with others in our industry, government and other leading stakeholders to develop technically and economically sound climate policies over the next few years. We also were co-sponsors of a new independent study, which concluded that homes constructed with wood framing provide a substantial energy and greenhouse gas benefit over similar homes constructed with concrete and steel structures. We have completed an inventory of both the [GHG] emissions and the related carbon stored in forests and products. Recognizing that there are no internationally-agreed upon conventions for much of that accounting analysis, we see the potential for both risks and opportunities associated with climate change."

Weyerhaeuser Co.

NYSE: ***WY***
Industry: ***Forest products***

Public Disclosure	*(continued)*
Securities Filings Statement	None identified.
Company Report	***Roadmap for Sustainability 2004***
GRI Report	See above (in accordance).
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 10***
Savings Calculated by Company	***Amount sequestered:*** 26,000,000 tonnes of CO_2 ***Scope:*** Entity level Weyerhaeuser says its operations—forests and related products—are providing GHG savings in the following ways: • Sustainable forest management maintains the large pools of sequestered carbon inherent in its managed forests. • Biomass fuels recovered from its manufacturing processes produce 70% of pulp and paper mill energy requirements in a carbon-neutral fashion. • Development of biomass "gasification" technology and use of cogeneration systems improve its energy efficiency and could significantly reduce CO_2 emissions beyond what can be achieved through conventional energy technologies. • "Afforestation" investments in Uruguay are growing new forests that will sustainably sequester millions of additional tons of CO_2, even when future harvests are taken into account. Weyerhaeuser is a member of EPA's Energy Star and Combined Heat and Power programs.
GHG Emissions Inventory	***2004 Amount:*** 7,000,000 tonnes of CO_2 ***Region:*** Global
Third Party Vertification	No.
Reporting Protocol	GHG Protocol.

Strategic Planning	***Score: 9***
Emissions Targets	None identified. Weyerhaeuser supports the Business Roundtable's Climate RESOLVE initiative and the American Forest & Paper Association's Climate VISION Commitment, both of which have established organizational goals to voluntarily reduce the intensity rate of the industry's GHG emissions by 12% in 2002–2012.
GHG Emissions Trading	None identified.
Green Power	See Emissions Accounting section.
Energy Efficiency	See Emissions Accounting section.
Commercial Business	As noted above, Weyerhaeuser has sponsored research indicating that wood framing provides a substantial energy and greenhouse gas benefit over similar homes constructed with concrete and steel structures.

Corporate Governance Profiles

Petroleum

Amerada Hess Corp.

NYSE: ***AHC***
Industry: ***Petroleum***

Amerada Hess has set a company-wide target of reducing normalized greenhouse gas emissions by 5% in 2001-2005. It developed its own emissions reporting protocol in 2004. The company's GHG emissions data is submitted to the board Audit Committee. It also publishes this information in a stand-alone environmental report. Hess has been active in European GHG emissions trading programs.

Summary Score: 35

Company Information

Amerada Hess engages in oil and gas exploration and production activities in the United States, United Kingdom, Norway, Denmark, Equatorial Guinea, Algeria, Gabon, Indonesia, Thailand, Azerbaijan, Malaysia and other countries. It also manufactures, purchases, trades and markets refined petroleum and other energy products. The company owns 50% of a refinery joint venture in the U.S. Virgin Islands, and another refining facility, terminals and retail gasoline stations located on the East Coast of the United States. It had sales of $16.7 billion in 2004.

Contact Information

CEO / Chairman	John B. Hess
Contact	Tel: 212-997-8500 • Web: www.hess.com
Address	1185 Ave Of The Americas New York, NY 10036-2601 USA

Board Oversight

Score: 4

Board Committee	Audit Committee
Committee Chair	Robert Wilson, Chairman, Caxton Health Holdings
Actions Taken	The company told IRRC in 2003 that its Audit Committee reviews GHG emissions and climate change matters annually.

Management Execution

Score: 6

CEO Statement	*From 2004 EHS report:* "…Although we did not meet our interim target to reduce greenhouse gas emissions, we have developed a solid reporting protocol and methodology which allows for more precise measurement, management and control of these emissions."
Chief Environmental Officer	Gerald I. Bresnick, Vice President, Environmental, Health and Safety
Levels to CEO	2
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	The company told IRRC: "Business unit performance targets contain specific EH&S objectives. Additionally, the company uses variable compensation programs for all employees, including managers. Targets contain EH&S objectives specific to the business operation which influence the amount of the individual's annual bonus."

Public Disclosure

Score: 5

Company Statement	*From 2004 EHS report:* "The Corporation shares the worldwide concern about the environmental and social impact of air emissions. On a global scale, climate change is an issue that has prompted much public debate and has a potential impact on future economic growth and development." The company says its recognizes its need to improve reporting on GHG emissions, and made significant improvements in GHG Reporting Protocol and standardized reporting methodology in 2004.
Securities Filings Statement	*Excerpt from Form 10-K:* "The Corporation has undertaken a program to assess, monitor and reduce the emission of [GHGs], including carbon dioxide and methane. The challenges associated with this program may be significant, not only from the standpoint of technical feasibility, but also from the perspective of adequately measuring the Corporation's entire greenhouse gas inventory." (Also repeats language from the 2004 EHS report.)
Company Report	*Environmental Health, Safety and Social Responsibility Report 2004*
GRI Report	None identified.
Carbon Disclosure Project	Not queried.

Amerada Hess Corp.

NYSE: ***AHC***
Industry: ***Petroleum***

Emissions Accounting

Score: 12

Savings Calculated by Company

None identified.

Hess is an active member of the International Petroleum Industry Environmental Conservation Association's Climate Change Working Group and is currently participating on a taskforce drafting 'Project Reduction Guidelines' for the oil and gas Industry.

GHG Emissions Inventory

2004 Amount: 5,600,000 tonnes of CO_2e ***Region:*** Global

2001 Amount: 4,900,000 tonnes of CO_2e ***Region:*** Global

The 14% increase in GHG emissions in 2001–2004 is largely attributable to the inclusion of sources not previously quantified, such as emissions from drilling rigs. The company's normalized GHG emissions increased by 3% in comparison to the 2001 baseline, largely due to changes in its asset base. Normalized emissions fell 8% in 2004, largely as a result of efficiency gains in Algeria and U.S. exploration and production activities.

Third Party Vertification

Yes. The company's 2004 EHS Report was third-party verified by the ERM Certification & Verification Services. Emissions from U.K. and Denmark installations have also been subject to verification under the EU Emissions Trading System.

Reporting Protocol

The company developed its own assurance protocol, the AHC (Amerada Hess Corp.) Protocol, in 2004, and it began reporting under the American Petroleum Institute's SANGEA system in 2005. Hess is active in the API SANGEA User Group.

Strategic Planning

Score: 8

Emissions Targets

Baseline year: 2001 ***Target year:*** 2005 ***Region:*** Global (intensity rate)
Amount: 5% decrease in normalized emissions against 2001 asset base

Hess had achieved a 3% reduction in baseline emissions as of 2004.

GHG Emissions Trading

Voluntary programs—With its join venture partner, BP, Hess has participated in the U.K. Emissions Trading Scheme.

Government programs—Hess has facilities in the U.K. and Denmark that are subject to the E.U. Emissions Trading Scheme.

Green Power

None identified.

Energy Efficiency

See Commercial Business.

Commercial Business

Hess supports the development of energy efficient technologies through its Hess Microgen subsidiary. Microgen cogeneration units are more efficient than central power stations and subject to lower transmission losses resulting in a greater percentage of fuel conversion into usable energy. Microgen is involved in a government-industry study to determine the economic viability of distributed generation from microturbines fueled with well-field sour gas.

Anadarko Petroleum Corporation

NYSE: ***APC***
Industry: ***Petroleum***

Anadarko Petroleum is developing a company-wide greenhouse gas management system, under the direction of a management-level Climate Change Committee. This management plan uses 2004 as an emissions baseline, and will be updated annually. The company is also evaluating possible emission control targets. Anadarko is engaged in some of the world's largest enhanced oil recovery projects, whereby CO_2 is pumped underground to stimulate oil production. The amount of CO_2 stored through this process was equivalent to nearly one-quarter of its direct CO_2 emissions in 2004. Anadarko is also engaged in coalbed methane recovery and is the eighth largest U.S. producer of natural gas, a low-carbon energy source.

Summary Score: 39

Company Information

Anadarko Petroleum explores, develops, produces and markets natural gas, crude oil, condensate and natural gas liquids, domestically and internationally. The company also participates in overseas exploration joint ventures. It had sales of $6.1 billion in 2004.

Contact Information

CEO / Chairman	James T. Hackett / Robert J. Allison Jr.
Contact	Tel: 832-636-1000 • Web: www.anadarko.com
Address	1201 Lake Robbins Dr The Woodlands, TX 77380-1160 USA

Board Oversight

Score: 5

Board Committee	Nominating and Corporate Governance Committee
Committee Chair	James Bryan, former Executive Vice President of Newpark Drilling Fluids (retired)
Actions Taken	In response to a shareholder resolution, Anadarko is developing a GHG management plan and is adding climate change as a factor in strategic planning decisions. The Nominating and Corporate Governance Committee receives an annual assessment from a management-level Climate Change Committee on how the company is managing and responding to this issue.

Management Execution

Score: 8

CEO Statement	None identified.
Chief Environmental Officer	Robert Reeves, Senior Vice President., Corporate Affairs and Law
Levels to CEO	0
Climate Change Executive	Robert Reeves
Executive Committee	Climate Change Committee Anadarko formed this committee in 2003 to organize, evaluate and advise on climate change and greenhouse gas issues. It is chaired by Reeves, who reports to the company's senior officers and the Nominating and Governance Committee of the board. In 2004, the company approved a greenhouse gas management plan, recommended by this committee. The plan addresses the management of emissions of CO_2 and methane at all of Anadarko's worldwide operating locations.
Link to Executive Compensation	Anadarko's stock incentive plan lists "attainment of regulatory, environmental and safety goals" as a performance goal.

Anadarko Petroleum Corporation

NYSE: ***APC***
Industry: ***Petroleum***

Public Disclosure		***Score: 9***
Company Statement	*From company website:* "Scientific research is continuing to improve our understanding of the earth's climate and how it responds to human activities. The impact of [GHG] emissions—particularly carbon dioxide and methane—has emerged as a specific concern. As a good corporate citizen, Anadarko is committed to responsible environmental stewardship. We continually look for innovative ways to minimize the overall environmental impacts of our activities, including reduction of [GHG] emissions… "Examples of our efforts include: • …To increase energy efficiency and reduce emissions, Anadarko is working to minimize the flaring and venting of methane gas. • Anadarko proactively sequesters millions of tons of carbon dioxide (CO_2) that would otherwise be vented into the atmosphere. Our enhanced oil recovery projects in Wyoming use CO_2 to stimulate oil production. Instead of venting the gas after use, Anadarko expects to sequester about 29 million tons of CO_2 over the lifetime of the Salt Creek and Monell projects in Wyoming alone. This major geological sequestration will be one of the largest projects of its kind in the world. "…Fundamental to our operating philosophy is a commitment to adhere to the stricter of two standards: our own policies or an individual country's regulations. This includes adopting new standards in countries that are modifying their regulations to meet goals set forth in the Kyoto Protocol. In our view, it's possible to achieve reductions in GHG emissions in a cost-effective and voluntary manner. We have accomplished this, in part, through the measures outlined above. We believe that it's important to balance economic and environmental concerns so that industries are able to innovate, develop and grow the global economy in a safe and responsible manner."
Securities Filings Statement	*Excerpt from Form 10K:* Anadarko identifies the failure to comply with laws and regulations on atmospheric emissions, among other environmental matters, as a potential liability, in its "Environment and Safety" section. It goes on to discuss the company's various efforts to reduce CO_2 and methane emissions. "…Anadarko maintains this same level of compliance in countries that are signatories to the Kyoto Protocol. Neither Anadarko nor any of the Company's peers yet know the regulatory obligations that may be imposed with regard to GHG emissions. At this time, attempts to assess impacts on stockholder value can only be speculative. The Company does not expect climate change to be a material strategic business issue for the next five to seven years; however, this assessment may change as Anadarko continues to review the issues surrounding GHG emissions and climate change."
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Anadarko Petroleum Corporation

NYSE: ***APC***
Industry: ***Petroleum***

Emissions Accounting

Score: 11

Savings Calculated by Company

Amount: 29,000,00 tons of CO_2e ***Scope:*** Project level
Time frame: Project lifetime

Anadarko is engaged in enhanced oil recovery and coalbed methane recovery, both of which reduce atmospheric greenhouse gas emissions. For the company's enhanced oil recovery efforts in Wyoming, Anadarko is injecting CO_2 into the ground and expects to sequester about 29 million tons of CO_2 over the lifetime of its Salt Creek and Monell projects. This major geological sequestration, which is being conducted primarily on federal acreage, will be one of the largest projects of its kind in the world.

GHG Emissions Inventory

2004 Amount: 4,900,000 tonnes of CO_2e ***Region:*** Global

This baseline inventory includes 4.2 million tonnes of direct emissions of CO_2 equivalent and 700,000 tonnes of indirect emissions (associated primarily with electricity consumption). It also includes an emission reduction of 1,280,000 tonnes of CO_2e that occurred as a result of enhanced oil recovery projects in 2004. This equates to a GHG emissions intensity rate of 28 tonnes of CO2e per thousand barrels of oil equivalent (MBOE) produced.

Third Party Vertification

No. The company is expected to make a decision in the fall of 2006 about whether to register its GHG emissions inventory.

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*.

Strategic Planning

Score: 6

Emissions Targets

None identified.

Anadarko will evaluate targets and timetables to control GHG emissions as part of this GHG Management Plan. No firm targets have been announced. An update on its management plan is expected in the fall of 2006.

GHG Emissions Trading

None identified.

Green Power

None identified.

Energy Efficiency

None identified.

Commercial Business

Anadarko is the eighth largest U.S. producer of natural gas, a low-carbon energy source. Anadarko is also engaged in enhanced oil recovery and coalbed methane recovery, both of which reduce atmospheric GHG emissions.

Apache Corp.

NYSE: ***APA***
Industry: ***Petroleum***

Apache announced in the fall of 2005 that it would report at least annually on its GHG reduction projects and build consideration of climate change into its core business. With "carbon diligence," Apache says, it makes "a deliberate effort to consider in-country regulatory implications, opportunities for emission reduction, the ability to procure or sell carbon credits and other environmental factors in its business planning processes." Apache is the 12th largest U.S. producer of natural gas, a low-carbon energy source.
The company declined to comment on this profile.

Summary Score: 22

Company Information	
	Apache Corporation is an independent energy company whose principal business includes exploration, development and production of crude oil, natural gas and natural gas liquids. The company's core geographic areas of operation are the United States, Canada, Australia, the United Kingdom and Egypt. Apache had sales of $5.3 billion in 2004.

Contact Information	
CEO / Chairman	G. Steven Farris / Raymond Plank
Contact	Tel: 713-296-6556 • Web: www.apachecorp.com
Address	2000 Post Oak Blvd Ste 100 Houston, TX 77056 USA

Board Oversight	***Score: 3***
Board Committee	None identified.
Actions Taken	At least once per year, the Manager of Environmental, Health and Safety reports directly to the board of directors on the status of GHG emission reduction projects, risks and/or opportunities presented by regulatory changes and other issues related to climate change.

Management Execution	***Score: 6***
CEO Statement	*From company website:* "Throughout our 50 year history, Apache has taken its environmental responsibilities seriously. Being good stewards of the environment is essential to our business, and we share the widespread concern that the emission of greenhouse gases (GHG) is leading to changes in global climate. The actions listed [on our website] and our future actions will be guided by our commitment to fundamental science and technological advancement."
Chief Environmental Officer	Paul Griesedieck, Manager, Environment, Health and Safety
Levels to CEO	Not determined.
Climate Change Executive	Paul Griesedieck
Executive Committee	Corporate Environment, Health and Safety Department. This department provides technical advice and is responsible for GHG emission reporting and emission reduction initiatives. Innovative management efforts to reduce GHG emissions are encouraged throughout the organization and rewarded by special recognition. The manager of this department reports at least annually to the board of directors on the company's GHG projects, initiatives and issues.
Link to Executive Compensation	Apache told the Carbon Disclosure Project in 2005, "Energy efficiency and emissions management is a major component of its annual corporate business plan and integral to its overall performance. Improved EH&S goals generally are made an important part of the annual Apache corporate targets which impact the performance evaluations of Apache employees."

Apache Corp.

NYSE: ***APA***
Industry: ***Petroleum***

Public Disclosure		***Score: 2***
Company Statement	*From 2005 response to Carbon Disclosure Project:* "Apache believes there are both commercial risks and opportunities stemming from the global response to climate change." Namely, as a leading supplier of natural gas, Apache expects to benefit from the market switch from coal to natural gas, a cleaner fuel, in electricity generation. It also said, "Apache believes that climate change issues must be managed as part of our core business."
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting		***Score: 6***
Savings Calculated by Company	***Amount:*** 384,564 tonnes of CO_2 ***Scope:*** Project level ***Time frame:*** Annual In its North Sea operations, Apache is switching to a gas and power ring and the use of natural gas-powered electric generators to reduce CO_2 emissions from diesel generators and the flaring of natural gas. The savings will reduce purchases of diesel fuel by $1 million a month and help the operation meet its CO_2 allocation under the E.U. Emissions Trading Scheme without the purchase of emission credits. In Saskatchewan, Canada, Apache is participating in a project to capture CO_2 emissions from a nearby coal gasification plant in North Dakota and use it to enhance oil recovery from the Midale Field. The project is expected to sequester 10 million tonnes of CO_2 over its lifetime. Apache also plans to permanently capture and store approximately 32,000 tonnes of CO_2 per year from its Zama Facility in northeastern Alberta, Canada, through enhanced oil recovery.
GHG Emissions Inventory	Not disclosed. Emissions of greenhouse gases from Apache operations in Australia, Canada and the United Kingdom have been quantified annually since 2001. Reporting in Canada and Australia is associated with voluntary government-industry "challenge" programs. Reporting in the U.K. is required as a condition of participation in the U.K. Emissions Trading Scheme. In 2004, Apache voluntarily undertook an effort to quantify GHG emissions from its operated properties in the U.S., but it has not disclosed the results of this inventory.
Third Party Verification	No.
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*.

Strategic Planning		***Score: 5***
Emissions Targets	None identified.
GHG Emissions Trading	***Voluntary programs***—Apache's North Sea operations have been part of the U.K. Emissions Trading Scheme. ***Government programs***—Apache's North Sea operations are subject to the E.U. Emissions Trading Scheme. By switching from diesel generators to natural gas-powered electric generators at its offshore platforms, Apache believes it will meet its emission allocation without the purchase of emission credits.
Green Power	None identified.
Energy Efficiency	None identified.
Commercial Business	Apache is the 12th largest U.S. producer of natural gas, a low-carbon energy source.

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.

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.

Burlington Resources Inc.

NYSE: ***BR***
Industry: ***Petroleum***

Burlington Resources has not addressed climate change as a governance issue. It has made limited disclosures about the Kyoto Protocol and greenhouse gas controls in its securities filings. It has taken inventories of its GHG emissions in Canada and has one facility in England that has participated in the U.K. Emissions Trading Scheme. Burlington is the sixth largest U.S. producer of natural gas, a low-carbon energy source.

Summary Score: 13

Company Information

Burlington Resources is an independent company engaged in the exploration, development, production and marketing of oil and gas. It is one of the top producers of natural gas in North America, and also has operations in the North Sea, Asia, Latin America and Africa. Burlington had sales of $5.6 billion in 2004. In December 2005, ConocoPhillips reached an agreement to purchase Burlington Resources for $35 billion, pending shareholder and regulatory approval.

Contact Information

CEO / Chairman	Bobby S. Shackouls
Contact	Tel: 713-624-9000 • Web: www.br-inc.com
Address	717 Texas St Ste 2100 Houston, TX 77002-2712 USA

Board Oversight

Score: 1

Board Committee	Audit Committee
Committee Chair	Robert Harding, Chairman, Brascan Corp.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 2

CEO Statement	None identified.
Chief Environmental Officer	Matthew McEneny, Director, Environment, Health and Safety
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	Environmental, health and safety performance is a factor in determining annual bonuses of executives.

Public Disclosure

Score: 1

Company Statement	None identified.
Securities Filings Statement	*Excerpt from Form 10-K:* "As a result of the ratification of the Kyoto Protocol and the adoption of legislation or other regulatory initiatives designed to implement its objectives by the national and regional governments, reductions in greenhouse gases from crude oil and natural gas producers may be required which could result in, among other things, increased operating and capital expenditures for those producers. Until such legislation or other regulatory initiatives are finalized, the impact of the Kyoto Protocol and any such legislation adopted as a result of its ratification remains uncertain."
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Answered questionnaire, denied permission for disclosure.

Burlington Resources Inc.

NYSE: ***BR***
Industry: ***Petroleum***

Emissions Accounting

Score: 4

Savings Calculated by Company	None identified
GHG Emissions Inventory	***2002 Amount:*** 1,585,000 tonnes of CO_2 equivalent ***Region:*** Canada ***2001 Amount:*** 866,000 tonnes of CO_2 equivalent ***Region:*** Canada Burlington Resources' Canadian operation, Burlington Resources Canada Ltd., voluntarily registers its GHG emissions from owned and operated sources with the Canadian Standard Association's GHG Challenge Registry. Between 2001 and 2002, the division's GHG emissions increased 83%, while production increased 104%. Burlington Resources Canada received a VCR Leadership Award in 2000 for displaying "extraordinary commitment, action, best practices and leadership toward the voluntary reduction of greenhouse gas emissions."
Third Party Vertification	No.
Reporting Protocol	None identified.

Strategic Planning

Score: 5

Emissions Targets	None identified.
GHG Emissions Trading	***Voluntary programs***—Burlington's Rivers Terminal in northwest England entered the U.K. Emissions Trading Scheme. ***Government programs***—None identified.
Green Power	None identified.
Energy Efficiency	Burlington Resources is a member of the U.S. EPA's Natural Gas STAR program. For energy usage savings, Burlington uses the following technologies: Low—Bleed Pneumatic Devices; Flash Tank Separators on Dehydrators; Vapor Recovery Units; Pressurized Storage of condensate; Condensers on Dehydrators; Electric Glycol Pumps; and Plunger Lifts.
Commercial Business	Burlington is the sixth largest U.S. producer of natural gas, a low-carbon energy source.

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 Verification

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.

ConocoPhillips

NYSE: ***COP***
Industry: ***Petroleum***

ConocoPhillips published its first position statement on climate change in 2003. It has begun to take annual inventories of its CO_2 and methane emissions, which it says will guide development of cost-effective management programs for greenhouse gases. The company also is developing guidance for integrating climate change considerations into its project planning and approval processes, as well as emissions trading in Europe. ConocoPhillips is pursuing development of liquefied natural gas, gas-to-liquids, hydrogen and carbon sequestration technologies, and is evaluating renewable energy options. It has also acquired coal gasification technology that could be used in combined-cycle power plants.

Summary Score: 35

Company Information

ConocoPhillips is the third-largest U.S. integrated oil and gas company. It explores for oil and gas in more than 30 countries and sells fuel under the 76, Conoco, and Phillips 66 brands. Its other operations include chemicals, gas gathering, fuels technology and power generation. ConocoPhillips reached an agreement to purchase Burlington Resources in December 2005 for $35 billion, pending shareholder and regulatory approval. ConocoPhillips had sales of $118.7 billion in 2004.

Contact Information

CEO / Chairman	J. J. Mulva
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Board Oversight

Score: 3

Board Committee	Public Policy Committee
Committee Chair	Victoria J. Tschinkel, Director, Florida Nature Conservancy
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 5

CEO Statement	*From 2004 Sustainability Report:* Chairman Mulva said he understands that stakeholders are looking for ConocoPhillips to "provide increasingly cleaner fuels to address concerns for local air quality and climate change" and to "minimize the environmental impacts" of the company's operations. Mulva said that while he expects contributions from renewable resources to expand in coming years, he believes that "most of the projected demand growth [for energy] will have to be met by cleaner-burning fossil fuels."
Chief Environmental Officer	Robert Ridge, Vice President, Health, Safety and Environment
Levels to CEO	0
Climate Change Executive	Robert Ridge
Executive Committee	None identified.
Link to Executive Compensation	In 2005, the board's compensation committee "considered core values of safety, ethics and environmental stewardship…" in making decisions about stock incentive plans and other compensation decisions for executives.

ConocoPhillips

NYSE: ***COP***
Industry: ***Petroleum***

Public Disclosure

Score: 7

Company Statement

From company website:

"ConocoPhillips recognizes that human activity, including the burning of fossil fuels, is contributing to increased concentrations of [GHGs] in the atmosphere that can lead to adverse changes in global climate. While the debate continues over the extent of human contributions and the timing and magnitude of future impacts, we are committed to taking action to expand our business planning processes to address [GHG] emissions and to develop [GHG] targets for our operations. Our commitment to sustainable development will provide the foundation for our actions.

"Furthermore, we support public actions that take a flexible approach to managing this issue. We support market-based approaches that reward voluntary actions, include reduction targets that allow for economic growth, foster technological solutions and support products increasingly friendly to the environment.

"Our Plan to address climate change...

- Set targets to reduce [GHG] emissions while maintaining safe operations and sound economics
- Integrate our climate change policies into strategic planning, decision making and operating processes
- Pursue selected low-carbon and no-carbon energy technologies and carbon management business opportunities
- Participate in the development of public policy and actions that efficiently address climate change
- Assist our customers and encourage our suppliers in reducing their GHG emissions
- Measure and publicly report our progress

"Our Expectations...

"These actions to address the climate change issue will help us achieve our goal of superior economic, social and environmental performance."

Securities Filings Statement

Excerpt from Form 10-K:

"Environmental laws and regulations, including those that may arise to address concerns about global climate change, are expected to continue to have an increasing impact on our operations in the United States and in other countries." While the U.S. has not ratified the Kyoto Protocol, it still might ratify it in the future, the company says, or choose to support "other [GHG]-related emissions reduction programs." In addition, other countries where it operates have made commitments to the Kyoto Protocol and are in various stages of formulating applicable regulations. "Because considerable uncertainty exists with respect to the regulations that would ultimately govern implementation of the Kyoto Protocol," it says, it is not possible to accurately estimate its future compliance costs, though it cautions they "could be substantial."

Company Report

ConocoPhillips Sustainable Development Report—Baseline (2004)

GRI Report

None.

Carbon Disclosure Project

Answered questionnaire, provided disclosure.

Emissions Accounting

Score: 9

Savings Calculated by Company

ConocoPhillips has not quantified its GHG savings from projects, but in 2004 it began collecting and validating company energy use and flaring data to track efficiency improvements and GHG savings.

GHG Emissions Inventory

2004 Amount: 55,000,000 tonnes of CO_2e ***Region:*** Global
2002 Amount: 50,000,000 tonnes of CO_2e ***Region:*** Global

In 2004, 59% of company emissions were from refining operations and 33% were from exploration and production. The inventory includes CO_2 emissions from operations, purchased electricity and steam, and methane emissions from operations.

2004 Amount: 53,000 tonnes of CO_2/million barrels of oil equivalent ***Region:*** Global (intensity rate)
2002 Amount: 53,000 tonnes of CO_2/million barrels of oil equivalent ***Region:*** Global (intensity rate)

ConocoPhillips

NYSE: ***COP***
Industry: ***Petroleum***

Emissions Accounting	*(continued)*
Third Party Vertification	No.
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*.

Strategic Planning	***Score: 11***
Emissions Targets	As part of the American Petroleum Institute's Climate Action Challenge, ConocoPhillips has committed to improving the energy efficiency of its U.S. refining operations by 10% in 2002-2012. Toward this end, the company is eliminating flaring of natural gas at its refining operations. ConocoPhillips is a production and processing partner in the U.S. EPA's Natural Gas STAR program.
GHG Emissions Trading	***Voluntary programs***—ConocoPhillips joined the International Emissions Trading Association in 2004. ***Government programs***—ConocoPhillips has facilities in Europe subject to the E.U. Emissions Trading Scheme. It says its commercial trading group is preparing to trade CO2 allowances to optimize its net emissions position for its businesses in Europe.
Green Power	ConocoPhillips says it "is evaluating and developing technologies for renewable energy," by leveraging its "expertise, intellectual property and physical assets in pursuit of economically viable, renewable energy business opportunities." It says it plans to "continue to develop technology options with the potential to enable renewable energy and, in particular, renewable fuels," but does not provide any details with respect to these technologies or projects.
Energy Efficiency	ConocoPhillips has begun collecting and validating company energy use data and flaring data to track energy efficiency improvements. In 2004, it brought on-line a 730-megawatt combined heat and power plant at its Humber refinery in North Lincolnshire, England—the largest cogeneration facility in Europe. The facility eliminates the need to flare surplus fuel gas produced by the refinery, providing efficiency gains and reducing GHG emissions. Excess power and steam is available for sale to neighboring industries or fed into the national grid.
Commercial Business: ***Natural gas***	ConocoPhillips is pursuing several technologies to expand use of lower-carbon natural gas. It is building a regasification terminal in Freeport, Tex., for startup in 2008. It has also developed gas-to-liquids (GTL) technology that enables natural gas to be converted to safe, easily transportable liquid products like diesel fuel and naphtha. The company's Ponca City, Okla., refinery has a GTL demonstration plant. Results from the plant led to the signing of a letter of intent for a major GTL plant in Qatar.
Coal gasification	ConocoPhillips acquired "E-Gas Technology for Gasification" in 2003. The process converts coal or petroleum coke into a hydrogen rich synthesis gas, which is ideally suited for refining and chemicals applications, and for use in integrated gasification combined cycle (IGCC) power plants.
Hydrogen fuels	ConocoPhillips is involved in the Controlled Hydrogen Fleet and Infrastructure Demonstration and Validation Project in California, an effort to further demonstrate and validate advancements in hydrogen-based transportation infrastructure. The five-year program also includes Air Products & Chemicals, Toyota, Honda, Nissan and BMW and state and federal agencies. ConocoPhillips also is in partnership with BP 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 Scottish & Southern power station, while the CO_2 would be transported by pipeline and injected for enhanced oil recovery and long-term geological storage in an offshore field. Startup is planned for 2009.
Carbon sequestration	ConocoPhillips is part of several other joint industry projects to study carbon capture and storage, including DOE's West Coast Regional Sequestration Partnership, the SINTEF Group, the Alberta Research Council's Enhanced Coalbed Methane Consortium and Carbon Dioxide Net, a European network of carbon dioxide researchers, developers and users of CO_2 mitigation technology.

Devon Energy Corp.

NYSE: ***DVN***
Industry: ***Petroleum***

Devon has not addressed climate change as a governance issue. It has not made any reference to the issue in its securities filings or on its website, except to highlight its participation in the U.S. EPA's Natural Gas STAR program, which has resulted in GHG emission reductions. Devon's Canadian subsidiary has been more active in taking GHG inventories, setting control targets and reporting on its progress. Devon is the third largest U.S. producer of natural gas, a low-carbon energy source.
(Editor's note: This profile does not reflect information that Devon recently posted on its website, including a statement its Greenhouse Gas Reduction Policy and Strategy, which has improved its disclosure.)

Summary Score: 11

Company Information	
	Devon Energy is engaged primarily in oil and gas exploration, development and production, the acquisition of producing properties, the transportation of oil, gas, and natural gas and the processing of natural gas. Its major exploration and production assets are in the Gulf of Mexico and western Canada, with smaller operations elsewhere around the globe. Devon had sales of $9.2 billion in 2004.

Contact Information	
CEO / Chairman	J. Larry Nichols
Contact	Tel: 405-228-8626 • Web: www.devonenergy.com
Address	20 N Broadway Ave Ste 1500 Oklahoma City, OK 73102-8260 USA

Board Oversight	***Score: 0***
Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution	***Score: 1***
CEO Statement	None identified.
Chief Environmental Officer	David Templet, Manager, Environment, Health and Safety
Levels to CEO	3
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 1***
Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Answered questionnaire, did not permit disclosure.

Devon Energy Corp.

NYSE: ***DVN***
Industry: ***Petroleum***

Emissions Accounting

Score: 6

Savings Calculated by Company

Amount: 2,600,000 tonnes of CO_2e ***Scope:*** Project level
Time frame: 1990–2004

These savings reflect Devon's efforts to reduce methane emissions from its U.S. operations. Devon joined EPA's Natural Gas STAR program in 2003; however, its emission reduction efforts started in 1990. Devon documented 6.3 billion cubic feet of methane emission reductions in 2004 as a result of improved completion, production and transportation methods and new technology. The EPA recognized Devon as the Natural Gas STAR "Rookie of the Year" in 2004 and awarded the company its Natural Gas STAR Production Partner of the Year Award in 2005.

GHG Emissions Inventory

Not disclosed.

Devon Canada is a "Gold Champion Level Reporter" with the Canadian Standard Association's GHG Challenge Registry. The company received a score of 98 out of 100 on seven categories: senior management support, base year quantification, business-as-usual projection, target setting, measures to achieve targets, results achieved and education, training and awareness.

Third Party Vertification

None identified.

Reporting Protocol

None identified.

Strategic Planning

Score: 3

Emissions Targets

None identified

Devon has not set any company-wide targets. However, Devon Canada has set estimated targets as part of its GHG Challenge Registry program. Devon Canada achieved 700,900 metric tonnes of CO2 equivalent reductions in 2003–2004. Devon Canada was scheduled to submit an updated action plan and progress report in late 2005.

GHG Emissions Trading

None identified.

Green Power

Devon Canada is evaluating a wind power purchase program to power its computers at the company's head office in Calgary, Canada.

Energy Efficiency

Devon Canada completed the "One-Tonne Challenge" in 2005. Employees were encouraged to reduce their personal GHG emissions by one tonne. The program achieved more than 80 percent participation, resulting in estimated reductions of 4,944 tonnes of GHGs by 1,026 particpants.

Commercial Business

As of 2004, Devon was the third largest producer of natural gas in the United States, a low-carbon energy source.

El Paso Corp.

NYSE: ***EP***
Industry: ***Petroleum***

El Paso has not addressed climate change as a governance issue. While the company has a board environmental committee, and lists global warming as a risk to its oil and gas business, it has not disclosed any information concerning climate change on its website or in other company statements. El Paso has reported some greenhouse gas emissions savings with a U.S. government registry. El Paso is the 15th largest U.S. producer of natural gas, a low-carbon energy source. *The company declined to comment on this profile.*

Summary Score: 9

Company Information

El Paso is primarily engaged in natural gas transportation and storage; oil and gas exploration and production; and gas gathering and processing. It is the operator of the largest gas transportation system in the United States, and also has interests in global energy projects, including power plants with 10,400 megawatts of generating capacity. El Paso had sales of $5.9 billion in 2004.

Contact Information

CEO / Chairman	Douglas L. Foshee / Ronald L. Kuehn Jr.
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Board Oversight

Score: 3

Board Committee	The Health, Safety & Environmental Committee
Committee Chair	John Whitmire, Chairman, CONSOL Energy
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 1

CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 1

Securities Filings Statement	*Excerpt from 2005 Form 10-K:* El Paso lists as a risk factor "decreased demand for the use of natural gas and oil because of market concerns about global warming or changes in governmental policies and regulations due to climate change initiatives."
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Not queried.

El Paso Corp.

NYSE: ***EP***
Industry: ***Petroleum***

Emissions Accounting		***Score: 3***
Savings Calculated by Company	***Amount:*** 1,263,287 tonnes of CO_2 equivalent (cumulative) ***Scope:*** Project level These savings were reported by El Paso Production Co. to the U.S. Energy Information Administration under the Section 1605(b) reporting program.
GHG Emissions Inventory	None identified.

Strategic Planning		***Score: 1***
Emissions Targets	None identified. Until 2002, El Paso was a member of the Clean Power Group, a coalition of energy companies—including Enron, Calpine, NiSource and Trigen Energy—that supported a national cap and trade system with progressively tighter GHG limits over time. This group is no longer active.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	El Paso is a member of the U.S. EPA's Natural Gas STAR Program.
Commercial Business	El Paso is the 15th largest U.S. producer of natural gas, a low-carbon energy source.

Exxon Mobil 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
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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.

Exxon Mobil Corp.

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

Management Execution

(continued)

Executive Committee

None identified.

While Exxon Mobil 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*.

Exxon Mobil 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, Exxon Mobil 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.

Marathon Oil Corp.

NYSE: ***MRO***
Industry: ***Petroleum***

Marathon Oil has an Environmental Management Information System that tracks GHG emissions, with results presented to an executive committee and the board of directors. The company has been tracking its GHG emissions since 1998, and released the results of its first GHG inventory in 2005. Marathon's emissions profile changed dramatically with the acquisition of assets in Equatorial Guinea in 2002, where it is building a major liquefied natural gas plant (LNG). Marathon is taking a number of steps to improve operational and energy efficiencies that will result in reduced natural gas flaring and associated GHG emissions, but it has not quantified its savings or set emission targets. As part of an "integrated gas strategy" launched in 2003, Marathon is active in the development of several fuels that produce fewer carbon emissions, including LNG, compressed natural gas and gas-to-methanol technology.

Summary Score: 26

Company Information

Marathon Oil explores for and produces oil and natural gas, principally in 10 countries, with recent acquisitions in Equatorial Guinea and Russia. It also operates seven refineries and 3,900 U.S. retail gas outlets. It had revenues of $45.1 billion in 2004.

Contact Information

CEO / Chairman	Clarence P. Cazalot Jr. / Thomas J. Usher
Contact	Tel: 713-629-6600 • Web: www.marathon.com
Address	5555 San Felipe Rd. Houston, TX 77056-2723 USA

Board Oversight

Score: 3

Board Committee	Corporate Governance and Nominating Committee
Committee Chair	Dennis Reilley, Chairman and CEO, Praxair Inc.
Actions Taken	This committee is responsible for reviewing Marathon's position regarding public issues (including environmental matters such as climate change) and the company's efforts to affect identified public issues through research, analysis, lobbying efforts, and participation in business and government programs.

Management Execution

Score: 4

CEO Statement	None identified.
Chief Environmental Officer	Daniel Sullenbarger, Vice President - Corporate Responsibility
Levels to CEO	1
Climate Change Executives	Daniel Sullenbarger and Jerry Howard, Senior Vice President—Corporate Affairs
Executive Committee	Health, Environment and Safety Management This committee is comprised of senior officers of the company and reviews Marathon's overall performance with various environmental compliance programs. The company has an Environmental Management Information System (EMIS) to increase the accuracy of data management and improve the timeliness of information availability. EMIS tracks air pollutants, waste streams and energy efficiency opportunities as well as GHG emissions.
Link to Executive Compensation	The company says that it used "environmental impact measures" in helping to decide upon the 2004 bonus payments it approved for Marathon's executive team.

Public Disclosure

Score: 3

Company Statement

From company website:

"Marathon says part of its commitment to environmental stewardship and responsible operations is:

- "supporting continued research on the potential impacts of [GHGs] on global climate change
- working with governments and others to develop responsible policies and laws to ensure environmental protection, as well as affordable and reliable energy needed to drive the world economy
- building an inventory of [GHG] emissions for company-operated facilities to help improve operational and energy efficiencies"

Marathon says that it believes "that economic development, environmental stewardship, and public health are not only compatible, but can best be sustained through responsible growth, sound science, efficient technologies and market-based economic policies."

Marathon Oil Corp.

NYSE: ***MRO***
Industry: ***Petroleum***

Public Disclosure	*(continued)*
Securities Filings Statement	None identified.
Company Report	*2004 Living Our Values Report / Living Our Values 2004 Performance Report Card*
GRI Report	None identified.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 10***
Savings Calculated by Company	None identified. Marathon is a member of EPA's Natural Gas STAR program and is a partner in the Global Gas Venting and Flare Reduction standard.
GHG Emissions Inventory	***2004 Amount:*** 19,700,000 tonnes of CO_2e ***Region:*** Global ***2001 Amount:*** 17,200,000 tonnes of CO_2e ***Region:*** Global In 2004, 16.3 million tonnes of the company's CO2e emissions were in countries for which the Kyoto Protocol has set emission reduction targets. As of June 30, 2005, Marathon owns 100% of Marathon Ashland Petroleum Marathon (MAP), which refines, transports and markets crude oil and petroleum products in the Midwest and southeastern United States. It is now called Marathon Petroleum Company LLC. Prior to June 2005, Marathon had a 62% interest in MAP. On an equity basis, MAP's emissions accounted for 13.2 million tonnes of the company's total emissions in 2004. The emissions include CO_2, methane and nitrous oxide.
Third Party Vertification	Yes. Marathon expected to have an independent group verify its inventory data in 2005, including for compliance with regulations and potential opportunities in the E.U. Emissions Trading Scheme.
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.* Marathon says it is working to improve accuracy and completeness of its emissions inventory.

Strategic Planning	***Score: 6***
Emissions Targets	None identified. The acquisition of assets in Equatorial Guinea in 2002 has increased Marathon's total GHG emissions and normalized emission rates. Marathon says expansion projects to be completed in 2005 will improve operational and energy efficiencies, resulting in reduced natural gas flaring and associated GHG emissions, including in Equatorial Guinea, where flaring will be eliminated. Marathon also is participating in the American Petroleum Institute's Climate Challenge program, which has set voluntary targets to reduce GHG emission intensity rates.
GHG Emissions Trading	***Voluntary programs***—None identified. ***Government programs***—Marathon's European Business Unit has quantified and completed independent verification of greenhouse gas emissions for compliance with regulations and potential opportunities in the E.U. Emissions Trading Scheme.
Green Power	None identified.
Energy Efficiency	None identified.
Commercial Business: ***Natural gas***	In 2003, Marathon announced a new "integrated gas strategy" to take advantage of the growing market for liquefied natural gas (LNG). It is constructing an LNG plant in Equatorial Guinea that will produce 3.4 million tonnes annually, with start-up projected for late 2007. Marathon also is exploring gas-to-liquids (GTL) technology at a demonstration plant in Oklahoma, in partnership with Syntroleum Corp. and with funding from the U.S. Department of Energy. LNG and GTL burn cleaner than oil and produce fewer emissions of CO_2. Marathon also is active in the development of other lower carbon fuels, such as compressed natural gas, natural gas hydrates and gas-to-methanol technology.

Murphy Oil Corp

NYSE: ***MUR***
Industry: ***Petroleum***

Murphy Oil has not addressed climate change as a governance issue, although it does have a board committee on Public Policy and the Environment that oversees the company's environmental affairs. In 1998 congressional testimony, the company's CEO has stated that implementation of the Kyoto Protocol could cause smaller oil companies "to go out of business." However, the company makes no disclosure concerning climate change in recent securities filings or in other recent company reports. Murphy Oil has purchased some GHG emission reduction credits in Canada and is a member of EPA's Natural Gas STAR program. It has not disclosed its GHG emissions or set any companywide control targets. *The company declined to comment on this profile*

Summary Score: 6

Company Information

Murphy Oil Corporation is a worldwide oil and gas exploration and production company with refining and marketing operations in the United States and the United Kingdom and crude oil and natural gas exploration and production operations in Canada. It had sales of $8.3 billion in 2004.

Contact Information

CEO / Chairman	Claiborne P. Deming / William C. Nolan Jr.
Contact	Tel: 870-862-6411 • Web: www.murphyoilcorp.com
Address	200 E Peach St El Dorado, AR 71730-5890 USA

Board Oversight

Score: 3

Board Committee	Public Policy & Environmental Committee
Committee Chair	Caroline Theus, President, Inglewood Land and Development
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 1

CEO Statement

Congressional testimony of CEO Deming before House Government Oversight Committee in 1998:

"What would the impact of the Kyoto Protocol be on Murphy, and, as an extension, the areas inwhich we work? In one word—devastating… If the price of crude is arbitrarily increased by $15 a barrel [assuming a $125 per ton cost of controlling carbon emissions] this will add almost $1.00 per barrel to our manufacturing costs… approximately 33 percent.

"This threat is different. The major oil companies because of sheer size and geographical diversity will make it. You will cause smaller players, like Murphy, needed to maintain a level, competitive, dynamic, interesting energy field to go out of business. All because of a problem, that if it exists, cannot possibly be solved by this clumsy, heavy-handed treaty. Let us continue research; but not act today precipitously and destroy companies, communities and lives until basic scientific disciplines are honored."

Chief Environmental Officer	None identified.
Climate Change Executives	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Murphy Oil Corp

NYSE: ***MUR***
Industry: ***Petroleum***

Public Disclosure		***Score: 0***
Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	None queried.

Emissions Accounting		***Score: 1***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified.

Strategic Planning		***Score: 1***
Emissions Targets	None identified.
GHG Emissions Trading	***Voluntary programs***—In November 2000, Murphy reached agreement with TransAlta of Alberta, Canada for the purchase of CO_2 emissions reduction credits.
	Government programs—None identified.
Green Power	None identified.
Energy Efficiency	None identified.
Commercial Business	None identified.

Occidental Petroleum Corp.

NYSE: ***OXY***
Industry: ***Petroleum***

Occidental Petroleum says its business plans are consistent with the goal of mitigating greenhouse gas emissions. It has a board Environmental, Health and Safety Committee that conducts periodic reviews of the climate change issue, and it provides emissions inventory information in an annual environmental report. Most of the company's emission reduction efforts have focused on energy improvements at its production facilities.

Summary Score: 25

Company Information

Occidental Petroleum engages in oil and gas exploration and production in the United States, the Middle East and Latin America. It also makes basic chemicals, plastics, and petrochemicals. Occidental Chemical produces acids, chlorine, and specialty products. It had sales of $11.4 billion in 2004.

Contact Information

CEO / Chairman	Ray R. Irani
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Board Oversight

Score: 5

Board Committee	Environmental, Health and Safety Committee
Committee Chair	Rodolfo Segovia, Executive Member, Inversiones Sanford (Colombia)
Actions Taken	The Environmental, Health and Safety Committee periodically discusses issues related to climate change.

Management Execution

Score: 2

CEO Statement	None identified.
Chief Environmental Officer	Richard Swan, Vice President, Health, Environment and Safety
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	Health, Environment and Safety (HES) Steering Team. This team is composed of senior HES coprorate executives and those of its business segments, who are responsible for developing a consensus-based, consistent approach to HES issues affecting the company.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 4

Company Statement	*From company website:* "Occidental has been monitoring both the research and the public debate on climate change and, regardless of the outcome, believes its business plans are consistent with the goal of mitigating [GHG] emissions. Occidental has addressed this issue in the company's Annual Report on HES for the past several years…In line with longstanding HES Principles, Occidental strives to reduce emissions (including GHGs) consistent with a business plan of being an efficient, low-cost producer. Implementation of new maintenance and operating practices, installation of more energy-efficient equipment and construction of efficient natural gas and hydrogen-fired co-generation facilities are ways that Occidental is pursuing this goal."
Securities Filings Statement	None identified .
Company Report	*2004 Health, Environment & Safety Report*
GRI Report	None.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Occidental Petroleum Corp.

NYSE: ***OXY***
Industry: ***Petroleum***

Emissions Accounting

Score: 11

Savings Calculated by Company

Amount: 4 million tonnes of CO_2e ***Region:*** Global ***Time frame:*** Annual

Occidental has increased the energy efficiency of its production operations by 25% since 1996, mainly through installation of gas-fired cogeneration facilities.

GHG Emissions Inventory

2003 Amount: 12,600,000 tonnes if CO_2e ***Scope:*** Entity-level

Occidental estimates that direct emissions from facilities in 2003 totaled about 8.0 million tonnes of CO_2e, with 93% of emissions being CO_2 and the rest being methane. The company's indirect emissions in 2003 totaled 4.6 million tonnes of CO_2e.

Third Party Vertification

No.

Reporting Protocol

Occidental adopted the American Petroleum Institute's Compendium of GHG estimating techniques and its SANGEA tool in 2003. It says comparisons with emissions before 2003 are not meaningful.

Strategic Planning

Score: 3

Emissions Targets

None identified.

Occidental's oil and gas and chemical subsidiaries support the goals of President Bush's Climate VISION program, which call for an 10% reduction in GHG emission intensity rates by the oil and gas industry, and a comparable 18% reduction by the chemical industry, in 2002–2012. Absolute emission rates are allowed to grow under this voluntary program.

GHG Emissions Inventory

None identified.

Green Power

None identified.

Energy Efficiency

Occidental has increased the energy efficiency of its production operations by 25% since 1996, mainly through installation of gas-fired cogeneration facilities. Occidental also is a member of the U.S. EPA's Natural Gas STAR program.

Commercial Business

None identified.

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
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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.

Statoil Asa

NYSE: ***STO***
Industry: ***Petroleum***

Statoil's stated business objective is to cause "zero harm to people or the environment." The company has one of the lowest carbon emission rates per unit of oil and gas produced in the petroleum industry. It has set a target to reduce GHG emissions from its operations by an additional 1.5 million tonnes by 2010, relative to base-case growth projections. It has established a business unit to provide greenhouse gas reduction and energy efficiency solutions for its operations and those of its customers. It is a strong proponent of GHG emissions trading and has invested in trading programs set up under the Kyoto Protocol. It is also actively pursuing carbon capture and storage technologies, and operates three sites where storage is now occurring. Statoil is active in hydrogen, biofuels and tidal power development. It also manufactures small combined heat and power plants for commercial and institutional facilities.

Summary Score: 72

Company Information

Statoil explores, produces, transports, refines and markets oil and gas. The Norwegian government owns nearly 71% of Statoil, but is divesting its shares. Statoil operates in 29 countries, focusing its upstream activities on the Norwegian continental shelf, North Sea, Caspian Sea, Western Africa, Gulf of Mexico and Venezuela. It has a retail network of more than 2,000 gas stations. It had sales of $50.3 billion in 2004.

Contact Information

CEO / Chairman	Helge Lund / Jannik Lindbaek
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Address	Forusbeen 50 Ste N-4035 Stavanger, Norway

Board Oversight

Score: 10

Board Committee	The full board is committed to sustainable development as a guiding principle.
Actions Taken	Values and ethics that guide Statoil's corporate governance center on its "obligation to behave as a responsible member of society. Our commercial involvement rests on this responsibility… [including] issues relating to the link between [GHG] emissions and global warming…." The board interacts with the Corporate Executive Committee in setting sustainable development objectives."

Management Execution

Score: 13

CEO Statement — *From 2004 Sustainability Report:*

"On the basis of scientific evidence, we assume that production and consumption of fossil fuels can represent a burden on the environment, in part through global warming. At the same time, it would be unrealistic to imagine a development over the next 30–40 years where oil and gas no longer served as the dominant energy bearers. Our job thereby becomes to minimize the unfortunate consequences of our business. One way in which we are doing this is to work systematically to reduce emissions….

"We do not believe that the answer lies in rapidly phasing out fossil fuels in favor of renewable energy. Instead, we would urge an open exchange of views and are skeptical of all dogmatic standpoints relating to energy, the environment or sustainability.

"Our contribution to reducing [CO_2] emissions is twofold. We support active emission trading, and believe that this will be the most effective way for industry to help cut the global release of [GHGs]. We are also working systematically on measures to reduce the volume of such gases emitted from our own facilities. That has put us in the absolute forefront among companies with the lowest [CO_2] emissions per unit of oil and gas produced…."

Chief Environmental Officer	Nina Udnes Tronstad, Executive Vice President for Health, Safety and the Environment
Levels to CEO	0
Climate Change Executives	Tronstad and Tor Fjæran, Vice President for the Environment. Tronstad is a member of Statoil's executive committee and has overall responsibility for Statoil's climate change policies and initiatives. Fjæran serves as a liaison to Statoil's business units and reports to Tronstad. Managers of each of Statoil's business areas, including technology and research and development, are responsible for the performance of these initiatives. Statoil also employs an advisor on carbon dioxide storage, Tore Torp.

Statoil Asa

NYSE: ***STO***
Industry: ***Petroleum***

Management Execution

(continued)

Executive Committee

Corporate Executive Committee.

This committee drafts and develops the main strategy for Statoil's business, and ensures that it has the backing of the company's board of directors. It establishes and monitors goals and performance development for each business area. One of the identified responsibilities of the committee is to look after "Statoil's total exposure—commercially, and in reputation, health, safety and the environment."

Link to Executive Compensation

None identified.

Public Disclosure

Score: 12

Company Statement

From company website:

"Climate strategy forms an integrated part of our business strategy. An important requirement for future growth and profitability is that we contribute to sustainable development. We will help to cut global emissions of [GHGs] gases by reducing the amounts we release from our activities, by participating in emission trading and by utilizing the Kyoto Protocol's project-based mechanisms… The goal is to implement special measures in our own business which ensure that our emissions in 2010 are 1.5 million tonnes lower than they would have been if this action were not taken. Measures implemented to the end of 2004 corresponded to 26% of the target."

Statoil estimates that it emits about 40 kilograms of CO_2 per unit of production, compared with the global industry average of 130 kilograms, according to figures from the Association of Oil and Gas Producers.

Securities Filings Statement

Excerpt from Form 20-F:

After reviewing its GHG emissions, Statoil says, "Changes in laws regulating [GHG]emissions could cause us to incur additional expenditures for pollution control equipment." It notes that its operations will trade emissions to comply with new GHG regulations from the European Union and Norway. It says that three of its facilities in Norway and Denmark "are exposed to the regulations and will have obligations to provide carbon dioxide allowances according to emissions from 2005." It says that it "established an emissions trading function in 2004 and is prepared to handle this exposure." The Management Discussion & Analysis section of the company's annual report also discusses this information, as well as investments that Statoil has made in the World Bank's Prototype Carbon Fund and in the Community Development Carbon Fund.

Company Report

Statoil and Sustainable Development 2004

GRI Report

See above.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 15

Savings Calculated by Company

Amount: 390,000 tonnes of CO_2e as of 2004 ***Scope:*** Project level

These savings represent 26% of the target that Statoil has to reduce its annual emissions of CO2e by 1.5 million tons by 2010, relative to base-case growth projections. Statoil says it is involved in roughly 60 projects that will yield substantial emission reductions. Most of these projects focus on reducing flaring of natural gas, optimizing energy use and employing carbon capture and storage technologies.

GHG Emissions Inventory

2004 Amount: 9,800,000 tonnes of CO_2e ***Region:*** Global
2000 Amount: 8,250,000 tonnes of CO_2e ***Region:*** Global

Statoil's inventory encompasses virtually all emission sources from operations as well as distribution of its products by rail, boat and road tankers. Statoil also emitted 31,000 tons of nitrous oxide emissions in 2004.

Third Party Vertification

No.

Reporting Protocol

None identified.

Statoil Asa

NYSE: ***STO***
Industry: ***Petroleum***

Strategic Planning

Score: 22

Emissions Targets

Baseline year: Unclear ***Target year:*** 2010 ***Region:*** Global (intensity rate)
Amount: 1,500,000 tonne reduction in annual CO_2 emissions

Statoil says its target is to trim "1.5 million tonnes of CO_2...from the annual volume of [GHGs] released by 2010, compared with the amount which would have been emitted without special measures." It does not provide an emissions baseline for comparison, but says it had met 26% of the 2010 target as of 2004

GHG Emissions Trading

Voluntary programs—Statoil has committed $10 million to the World Bank's Prototype Carbon Fund and $2.5 million to its Community Development Carbon Fund (CDFC). These funds will be invested in projects approved under the Clean Development Mechanisms or Joint Implementation provisions of the Kyoto Protocol in exchange for emission credits.

Government programs—Norway introduced a carbon tax in 1991 that has encouraged Statoil, a major operator in the Norwegian continental shelf, to reduce its emissions. In 2004, Norway also passed a Greenhouse Gas Emission Trading Act that will subject three of Statoil's facilities to emission caps by 2008. Statoil also is subject to provisions of the E.U. Emissions Trading Scheme and supports their use in Norway. Statoil believes that the "use of the Kyoto mechanisms and emission trading would be a far more effective way for the industry to help reduce global [GHG] emissions than maintaining the current carbon tax." It adds, "It would help Norway meet its Kyoto obligations in a cost-effective manner."

Green Power

Statoil is the largest supplier of wood pellets for energy use in Sweden, Denmark and Norway. A Statoil unit owns and operates combined heat and power facilities in Norway that burn landfill gas. Statoil also pursues research activities related to other forms of renewable energy, including biofuels.

Energy Efficiency

Statoil says it is an industry leader in efficient oil and gas production, producing 70% fewer carbon dioxide emissions per unit of production than the global industry average.

Commercial Business: ***Combined heat and power***

Statoil manufactures combined heat and power (cogeneration) plants that burn diesel fuel, natural gas and landfill gas more efficiently than traditional power plants. It sells cogeneration systems delivering 10–20 kilowatts of electricity for use in office buildings, hospitals and schools. It is also assessing cogeneration applications for industrial plants.

Hydrogen

Statoil's energy unit is involved in several projects to promote hydrogen as an energy bearer. It participates in the HyNor project to establish hydrogen filling capabilities at one of its service stations. (This project is part of Norway's "hydrogen highway" program, which will make it possible to drive hydrogen-fueled cars between Stavanger and Oslo by 2008.) Statoil also is pursuing a research project in Trondheim to develop carbon management for small-scale hydrogen production. Statoil also participates in NaturalHy, which is investigating how hydrogen-rich natural gas could help to increase the use of hydrogen in Europe, with a minimum of changes to pipeline systems and other infrastructure for natural gas.

Efficiency and carbon storage

Statoil has established a firm called New Energy that seeks business opportunities to reduce GHG emissions and improve energy efficiency for its operations and those of its customers. New Energy's services include non-fossil and low carbon energy products and services, as well as carbon capture and storage solutions. Statoil established the world's first facility for removal and underground storage of carbon dioxide in 1996, at its Sleipner East project in the Norwegian North Sea. Statoil is also storing carbon dioxide below ground on Algeria's In Salah gas field and at a similar facility in the Barents Sea. This technology will also be implemented at its Snøhvit field in 2007, where carbon dioxide will be stripped and injected into an empty reservoir under the seabed offshore. The Snøhvit facility combines cutting-edge subsea production technology with Europe's first export terminal for liquefied natural gas.

Sunoco Inc.

NYSE: ***SUN***
Industry: ***Petroleum***

Sunoco has reduced its greenhouse gas emissions by 10% since 1990, mainly through more energy-efficient production processes. However, it says that energy-intensive processes needed to produce low-sulfur fuels, as required under the U.S. Clean Air Act, will offset the benefits of its energy conservation efforts over the next several years. For this reason and because of the progress it has already achieved in cutting emissions, Sunoco does not intend to establish a specific greenhouse gas reduction target for now. Still, Sunoco says, it "will continue to urge policy-makers to evaluate the impacts of future regulatory requirements on energy use and greenhouse gas emissions" and will continue to participate in several voluntary government programs to reduce GHG emissions. Sunoco discusses its climate change activities in an annual environmental report produced under the guidelines of the Ceres coalition. Sunoco became the first major company to endorse the Ceres principles in 1992.

Summary Score: 39

Company Information

Sunoco is principally a petroleum refiner and marketer and chemicals manufacturer with interests in logistics and coke making. Sunoco's petroleum refining and marketing operations include the manufacturing and marketing of a full range of petroleum products, including fuels, lubricants and some petrochemicals. Sunoco's chemical operations comprise the manufacturing, distribution and marketing of commodity and intermediate petrochemicals. It had sales of $25.5 billion in 2004.

Contact Information

CEO / Chairman	John G. Drosdick
Contact	Tel: 215-977-3000 • Web: www.sunocoinc.com
Address	1735 Market St. Ste LL Philadelphia, PA 19103-7583 USA

Board Oversight

Score: 2

Board Committee	Public Affairs Committee
Committee Chair	James Kaiser, Chairman and CEO, Avenir Partners (an automobile business)
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 5

CEO Statement	None identified.
Chief Environmental Officer	Carolyn Green, Vice President, HES Regulatory Affairs
Levels to CEO	2
Climate Change Executive	None identified. Carolyn Green and Albert Knoll, Federal Government Relations, serve as company representatives for the Pew Center on Global Climate Change's Business Environmental Leadership Council.
Executive Committee	None identified on climate change. Sunoco has an executive-level Corporate Health, Environment and Safety Committee, chaired by the Chief Administrative Officer. Senior managers also meet with their senior vice presidents regularly to discuss critical environmental issues.
Link to Executive Compensation	In its 2004 Ceres report, Sunoco says that it revised its "Success Sharing Program" in 2001 to require that certain health, environment and safety performance targets are met each year. The program, in which both management and labor participate, establishes targets each year at the company, business unit and facility/entity levels on environmental criteria. The board's compensation committee approves how awards are affected by performance on environmental targets.

Sunoco Inc.

NYSE: ***SUN***
Industry: ***Petroleum***

Public Disclosure

Score: 7

Company Statement

From 2004 Ceres report:

Sunoco notes that in 1998 it joined the Business Environmental Leadership Council of the Pew Center on Global Climate Change as a founding member, and that its global climate change efforts have been consistent with the council's principles since then. Since 1990, it says, it has reduced its aggregate energy consumption by 12.6% and its emissions of greenhouse gases by 9.8%, although its GHG emissions increased by 2.4% between 2003 and 2004.

Sunoco says it "will continue to seek cost effective ways to reduce [its] energy use and greenhouse gas emissions." However, it notes, "the energy-intensive processes needed to produce low-sulfur fuels [associated with the Clean Air Act] are expected to offset the benefits of several years' worth of cost-effective energy efficiency projects." For this reason and the high benchmark set by its progress in cutting emissions since 1990, it says, it "has declined to establish a specific greenhouse gas reduction target." Still, Sunoco says, it "will continue to urge policy-makers to evaluate the impacts of future regulatory requirements on energy use and greenhouse gas emissions" and will continue to participate in several voluntary government programs to reduce emissions.

Securities Filings Statement

Excerpt from Management Discussion & Analysis:

"Important factors that could cause actual results to differ materially from the forward-looking statements include, without limitation… changes in applicable statutes and government regulations or their interpretations, including those relating to the environment and global warming."

Sunoco spent $431 million on environmental projects and compliance activities in 2004, up 51 percent from $285 million in 2003 and up 77 percent from $243 million in 2002. Most of the increase is attributable to investments to come into compliance with aspects of the 1990 U.S. Clean Air Act's provisions on sulfur content of gasoline beginning in 2004 and the sulfur content of on-road diesel fuel beginning in 2006.

Company Report

2004 Health, Environment & Safety Review and Ceres Report

GRI Report

None identified.

Carbon Disclosure Project

Not queried.

Emissions Accounting

Score: 17

Savings Calculated by Company

Amount: 1,200,224 tonnes of CO_2 in 2002 ***Scope:*** Entity-level

These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program.

GHG Emissions Inventory

2004 Amount: 11,297,762 tonnes of CO_2 equivalent ***Region:*** Global
2000 Amount: 12,520,595 tonnes of CO_2e ***Region:*** Global

The emissions data includes Sunoco refineries and plants as well as purchased power.

Third Party Vertification

No.

Reporting Protocol

Sunoco uses the SANGEA software tool, first developed by Chevron Texaco and now adopted by the American Petroleum Institute, to measure energy usage and greenhouse gas emissions.

Strategic Planning

Score: 8

Emissions Targets

None identified.

Sunoco participates in several of the EPA's Climate Leaders activities, although the company has not formally joined as a partner, which would require it to establish GHG emissions targets.

GHG Emissions Trading

None identified.

Green Power

None identified.

Energy Efficiency

Sunoco says that it established a formal energy conservation program at its refineries in 1975, which instituted an organized approach to achieve energy conservation goals. Its program focuses on energy awareness and operational improvements to use energy more effectively in its operations and incorporates planning for energy conservation technology into its major facility expansions and upgrades. Under the program, each of Sunoco's refineries pursues its own set of specific energy conservation objectives designed to achieve its yearly energy use reduction targets, but management teams that lead refineries and chemical plants also communicate regularly to share experiences and good practices.

Commercial Business

None identified.

Tesoro Corp.

NYSE: ***TSO***
Industry: ***Petroleum***

Tesoro has just begun to address climate change as a governance issue. It recently established a board committee on Environment, Health and Safety that will evaluate GHG reduction options. The company has not yet made any public statements on climate change or issued an environmental report. It is in the process of taking a GHG inventory, however, and has achieved more than 100,000 tonnes of annual savings in GHG emissions through energy efficiency programs at its refineries.

Summary Score: 15

Company Information

Tesoro refines crude oil and makes various fuel products, including gasoline, jet fuel, diesel fuel, fuel oil, and liquid asphalt. It markets fuel to more than 500 branded retail gas stations, including 210 of its own retail outlets in Alaska, Hawaii and several western states in the continental United States. Tesoro had sales of almost $12.3 billion in 2004.

Contact Information

CEO / Chairman	Bruce A. Smith
Contact	Tel: 210-828-8484 • Web: www.tesoropetroleum.com
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Board Oversight

Score: 6

Board Committee	Environment, Health and Safety Committee (formed in August 2004)
Committee Chair	Donald Schmude, former Texaco executive (retired in 1994)
Actions Taken	In response to a shareholder resolution, the company has pledged to develop a GHG baseline and "communicate the results of the...baseline to Tesoro's Environmental, Health & Safety Committee… for its use in considering GHG emission reduction objectives as well as a coordinated corporate position on the reduction efforts."

Management Execution

Score: 4

CEO Statement	None identified.
Chief Environmental Officer	James Darnell, Vice President of Environment, Health and Safety
Levels to CEO	1
Climate Change Executive	Gene Burden, Senior Vice President, External Relations
Executive Committee	None identified.
Link to Executive Compensation	Under the Company's 2004 annual incentive strategy, senior executive target awards were structured so that 25% was tied to individual/ team performance or specific operational metrics, such as operating profit, safety and environmental stewardship.

Public Disclosure

Score: 0

Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Not queried.

Tesoro Corp.

NYSE: ***TSO***
Industry: ***Petroleum***

Emissions Accounting

Score: 3

Savings Calculated by Company

Amount: 107,000 tonnes of CO_2e ***Scope:*** Project level
Time frame: 2004 and 2005 (annual savings)

The savings have resulted from installation of combined heat and power generators and other energy efficiency projects at the company's six U.S. refineries. In addition, two flare gas compressors at Tesoro's Martinez Refinery take flare gases— hydrogen, nitrogen, methane and other hydrocarbons—compresses them and returns them to the refinery for use as fuel. This project reduced flaring by 90%, which in turn reduced flare emissions by 94%.

GHG Emissions Inventory

In process.

Tesoro is conducting an emissions inventory, setting 2004 as a baseline.

Third Party Vertification

No.

Reporting Protocol

None identified.

Strategic Planning

Score: 2

Emissions Targets

None identified.

GHG Emissions Trading

None identified.

Green Power

None identified.

Energy Efficiency

Tesoro has an active energy effeciency program that includes a dedicated corporate energy consultant who has performed an energy survey at each site and appointed energy coordinators at each of the six refineries. Tesoro is working with the U.S. EPA on the development of a EPA Energy Star Refinery program and is collaborating with the U.S. Department of Energy Office of Industrial Technology in applying energy efficient processes at each of its locations. The company has recently established a data-sharing intranet program, "Energy eRoom" to quickly disseminate energy information among the different facilities.

Commercial Business

None identified.

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
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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.

Valero Energy Corp.

NYSE: ***VLO***
Industry: ***Petroleum***

Valero Energy has projects underway that will reduce its CO_2 emissions from refining operations by 1.8 million tons per year and cut its total emissions by 5% in 2003–2008. It also says its production of low-sulfur fuels will reduce automotive emissions of nitrous oxides, saving the equivalent of almost 2 million tons of CO_2 equivalent annually by 2008. On its website, Valero publishes a list of projects that have resulted in GHG savings, mainly from flare gas recovery programs, energy efficiency and process improvements. However, it has not issued a stand-alone environmental report and has made relatively few other statements concerning climate change. *Valero declined to comment on this profile.*

Summary Score: 24

Company Information

Valero Energy is the largest independent oil refiner in the United States. It refines low-cost sour and heavy crudes into cleaner-burning, higher-margin products, including low-sulfur diesel fuels. It operates 17 refineries located in California, Delaware, Louisiana, New Jersey, Ohio, Oklahoma, Tennessee, Texas, and in Aruba and Canada. It has a network of more than 4,700 gas stations. Valero had sales of $54.6 billion in 2004.

Contact Information

CEO / Chairman	William Klesse
Contact	Tel: 210-345-2000 • Web: www.valero.com
Address	1 Valero Way San Antonio, TX 78249-1112 USA

Board Oversight

Score: 1

Board Committee	Audit Committee
Committee Chair	Ruben Escobedo, President, Ruben Escobedo & Co. (a public accounting firm)
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 3

CEO Statement	None identified.
Chief Environmental Officer	Norman Renfro, Vice President - Health, Safety and Environmental
Levels to CEO	2
Climate Change Executives	None identified.
Executive Committee	None identified.
Link to Executive Compensation	Valero's Compensation Committee considers "corporate values measures, including ethics compliance, environmental and safety," in making decisions on performance rewards for Valero's management team.

Valero Energy Corp.

NYSE: ***VLO***
Industry: ***Petroleum***

Public Disclosure

Score: 3

Company Statement

From company website:

"While the debate continues over the issue of greenhouse gases and climate change, along with the significance of naturally and non-naturally occurring carbon emissions in our atmosphere, Valero has adopted a strategy of promoting energy efficiency and recovery projects that will reduce [GHGs]." It notes that it is making "significant investments in advanced technology to further reduce [GHG] emissions" from its operations and "is currently implementing the latest control technology to improve combustion efficiency at [its] refineries, a process that reduces [CO_2] emissions while saving fuel." With these steps, Valero "expects to reduce [GHG] emissions by approximately 1.8 million tons per year during the next five years through more efficient combustion, improved reliability and other improvement projects."

Securities Filings Statement: None identified.

Company Report: None identified.

GRI Report: None identified.

Carbon Disclosure Project: Not queried.

Emissions Accounting

Score: 9

Savings Calculated by Company

Amount: 1,802,600 tonnes of CO_2e annually ***Scope:*** Project level
Time frame: Annual

GHG Emissions Inventory

2003 Amount: 21,200,000 (short) tons of CO_2e ***Region:*** Global
This inventory of Valero's refinery operations includes CO_2, methane and nitrous oxide emissions from all significant industrial sources, including flares, vents, natural gas combustion sources and electrical generation. Valero's 2003 baseline greenhouse gas intensity rate was 35.1 tons of CO_2e per 1,000 feedstock barrels.

Third Party Verification: No.

Reporting Protocol: None identified.

Strategic Planning

Score: 8

Emissions Targets

Baseline year: 2003 ***Target year:*** 2008 ***Region:*** Global
Amount: Not to exceed 20,140,000 tons of CO_2e

Valero has set a target to reduce its GHG emissions by 5% from 2003–2008 from its existing operations. This projection takes into account its estimated growth in production from these facilities and planned reductions from energy efficiency projects. However, it does not include future additions to refinery capacity that could increase Valero's overall GHG emissions.

GHG Emissions Trading: None identified.

Green Power: None identified.

Commercial Business: ***Low sulfur fuels***

Valero estimates that its production of low-sulfur petroleum fuels will reduce automotive emissions of nitrous oxide, a greenhouse gas, equal to almost 2 million tons per year of CO_2. Valero is producing these fuels to meet the EPA's Tier Two regulations on gasoline and ultra-low sulfur diesel specifications.

Williams Companies Inc.

NYSE: ***WMB***
Industry: ***Petroleum***

The Williams Companies has not addressed climate change as a governance issue. It says its policy is to "meet or exceed all applicable environmental, health and safety laws and regulations, and to facilitate full and open discussion to address responsible standards and practices where laws and regulations do not exist." However, there is no discussion of climate change in any of the company's publicly available documents or on its website. Williams is the 22nd largest U.S. producer of natural gas, a low-carbon energy source.
The company declined to comment on this profile.

Summary Score: 3

Company Information

The Williams Companies Inc. is engaged in gas gathering, storage, processing, and transportation, as well as oil and gas exploration and production. Williams operates 14,700 miles of interstate natural gas pipeline in the United States. The company also is involved in power production, which accounts for 65% of its sales. Williams had sales of $12.5 billion in 2004.

Contact Information

CEO / Chairman	Steven J. Malcolm
Contact	Tel: 918-573-2000 • Web: www.williams.com
Address	1 Williams Ctr Tulsa, OK 74172-0140 USA

Board Oversight

Score: 0

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 0

CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executives	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 0

Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Not queried.

Emissions Accounting

Score: 1

Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified.

Strategic Planning

Score: 2

Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	Williams is partner in the U.S. EPA's Natural Gas STAR program.
Commercial Business	Williams is the 22nd largest U.S. producer of natural gas, a low-carbon energy source.

Corporate Governance Profiles

Coal

Arch Coal Inc.

NYSE: ***ACI***
Industry: ***Coal***

Arch Coal acknowledges that GHG emission controls could reduce demand for coal as a fuel for electric power generation. However, except for supporting government-industry research on "clean-coal technologies," including power plants that could achieve zero net emissions, the company has limited its efforts to reducing the GHG intensity of its own production processes. It has not disclosed any emissions data or set any targets.
The company declined to comment on this profile.

Summary Score: 8

Company Information

Arch Coal is one of the largest coal producers in the United States, with 27 mines in eastern and western states. It sells substantially all of its coal to electric utilities, steel producers and industrial facilities. It had sales of $1.9 billion in 2004.

Contact Information

CEO / Chairman	Steven F. Leer / James R. Boyd
Contact	Tel: 314-994-2700 • Web: www.archcoal.com
Address	One City Place Dr Ste 300 Saint Louis, MO 63141-7056 USA

Board Oversight

Score: 0

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 2

Chairman Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	Environmental compliance is a corporate performance measure used to evaluate executive officers for their annual performance bonus.

Public Disclosure

Score: 4

Company Statement *From company website:*

"Global climate change refers to the theory that certain emissions of 'greenhouse gases' (including carbon dioxide or CO_2) over time could contribute to a warming of the Earth's climate. If it is determined that greater actions are necessary, we would support a policy based on technological innovation and economic incentives that, over the long term, will result in greater emissions reductions with fewer economic costs to U.S. consumers and businesses.

"Additional progress depends upon the willingness and ability of government and industry to continue investing hundreds of millions of dollars in partnership for the development of increasingly clean technologies. In the interim, the industry is taking voluntary efforts to reduce the carbon intensity of our processes in keeping with the President's recent request."

Arch Coal Inc.

NYSE: ***ACI***
Industry: ***Coal***

Public Disclosure	*(continued)*
Securities Filings Statement	*Except from Form 10-K:* "The United States and more than 160 other nations are signatories to the 1992 Framework Convention on Global Climate Change, commonly known as the Kyoto Protocol, that is intended to limit or capture emissions of greenhouse gases such as carbon dioxide and methane. The U.S. Senate has neither ratified the treaty commitments, which would mandate a reduction in U.S. [GHG] emissions, nor enacted any law specifically controlling [GHG] emissions and the Bush Administration has withdrawn support for this treaty. Nonetheless, future regulation of [GHGs] could occur either pursuant to future U.S. treaty obligations or pursuant to statutory or regulatory changes under the Clean Air Act. Efforts to control [GHGs] could result in reduced demand for coal if electric power generators switch to lower carbon sources of fuel. "…Other proposed initiatives may have an effect upon coal operations. One such proposal is the Bush Administration's Clear Skies Initiative. As proposed, this initiative is designed to reduce emissions of sulfur dioxide, nitrogen oxides, and mercury from power plants. Other so-called multi-pollutant bills, which could regulate additional air pollutants, have been proposed by various members of Congress. While the details of all of these proposed initiatives vary, there appears to be a movement towards increased regulation of a number of air pollutants. Were such initiatives enacted into law, power plants could choose to shift away from coal as a fuel source to meet these requirements."
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Not queried.

Emissions Accounting	***Score: 0***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified.
Third Party Vertification	No.
Reporting Protocol	GHG Protocol (as of 2006).

Strategic Planning	***Score: 2***
Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	None identified.
Commercial Business	In 2003, KFx and Arch Western Resources, LLC, a subsidiary of Arch Coal, reached an agreement to pursue the development of a 700,000 ton-per-year K-Fuel Plus plant at an Arch mine in Wyoming. "K-Fuel® technology has been shown to significantly enhance the BTU content of western coal while offering the industry a product that is low in SO2, NOx, and mercury emissions, and that may satisfy the requirements of President Bush's Clear Skies Initiative as currently proposed." The selling of low-sulfur emitting coal is a significant company strategy, and may reduce the CO_2 intensity of burning western coal by enhancing its BTU content.

CONSOL Energy Inc.

NYSE: ***CNX***
Industry: ***Coal***

CONSOL Energy supports voluntary measures to control GHG emissions and research into carbon capture and storage technologies. It acknowledges that adoption of government proposals such as the Kyoto Protocol and "multi-pollutant" legislation for electric utilities could make coal a "less attractive fuel" for power generation. CONSOL is one of the first coal companies to capture methane from its mines to produce commercial quality gas for sale, while enhancing mine safety. Outside of this initiative, however, the company has taken few proactive steps to address climate change. *The company declined to comment on this profile.*

Summary Score: 14

Company Information

CONSOL Energy is the largest producer of high-Btu bituminous coal in the United States, and one of the largest exporters of U.S. coal. CONSOL has bituminous coal mining complexes in six states, producing both high-Btu coal and gas, which collectively fuels two-thirds of U.S. power generation from reserves located mainly east of the Mississippi River. CONSOL has expanded the use of its property holdings by developing industrial and retail projects and overseeing timber sales and forestry management projects in the United States and abroad. It had sales of $2.7 billion in 2004.

Contact Information

CEO / Chairman	J. Brett Harvey / John L. Whitmire
Contact	Tel: 412-831-4000 • Web: www.consolenergy.com
Address	1800 Washington Rd Pittsburgh, PA 15241-1405 USA

Board Oversight

Score: 0

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 3

CEO Statement — *From 2004 Annual Report Executive Report:*

"There are better ways to approach this issue on an international basis than the short-term reduction targets of the Kyoto Protocol or domestically through the 'multi-pollutant approach' now gaining attention. We would propose that the following principles be a part of the discussion on climate.

- America should recognize its vast land and water resources and encourage greater development of natural carbon consumption methods or carbon sinks.
- The federal government should greatly enhance research funding for promising mechanical and chemical carbon sequestration technologies.
- New technologies targeting efficiency and emissions improvements should be developed and deployed through federal/private funding and incentives.
- An aggressive voluntary reporting and reduction program should be initiated, building upon the experience of previous voluntary actions. We received awards for our innovations in capturing coal mine methane, a greenhouse gas, and for excellence in the reclamation of a former surface mine.

"Finally, we continued our efforts to develop innovative, cost-effective methods for removing mercury from coal combustion gas and for capturing and sequestering carbon dioxide following coal combustion."

Chief Environmental Officer	None identified.
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

CONSOL Energy Inc.

NYSE: ***CNX***
Industry: ***Coal***

Public Disclosure		***Score: 5***
Company Statement	None identified, except for Form 10-K below	
Securities Filings Statement	*Excerpt from Form 10-K :* "[N]umerous proposals have been made at the international, national and state levels that are intended to limit or capture emissions of greenhouse gases, such as carbon dioxide. If comprehensive legislation focusing on [GHG] emissions is enacted by the United States or individual states, it may affect the use of fossil fuels, particularly coal, as an energy source…. "In addition, Congress and several states are now considering legislation to further control air emissions of multiple pollutants from electric generating facilities and other large emitters. These new and proposed reductions will make it more costly to operate coal-fired plants and could make coal a less attractive fuel alternative to the planning and building of utility power plants in the future. To the extent that any new or proposed requirements affect its customers, this could adversely affect its operations and results."	
Company Report	None identified.	
GRI Report	None.	
Carbon Disclosure Project	Not queried.	

Emissions Accounting		***Score: 3***
Savings Calculated by Company	***Amount:*** 18.8 million tonnes of CO_2e	***Scope:*** Project level
	These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program. Through its Methane Outreach program, the U.S. EPA named CONSOL Energy a winner of its 2002 Climate Protection Awards for reducing methane emissions to the atmosphere.	
GHG Emissions Inventory	None identified.	
Third-Party Verification	None identified.	
Reporting Protocol	None identified.	

Strategic Planning		***Score: 3***
Emissions Targets	None identified.	
GHG Emissions Trading	None identified.	
Green Power	None identified.	
Energy Efficiency	None identified.	
Commercial Business	CONSOL is a founding member of the FutureGen Industrial Alliance, a global coalition of coal companies and electric utilities working with the U.S. Department of Energy to develop "the ultimate coal-fueled power plant of the future" offering near-zero emissions, carbon capture, sequestration technologies and hydrogen production facilities. In 2005, FutureGen announced plans for a 275-megawatt protoype plant, scheduled for operation in the next decade. In addition, CONSOL is one of the first coal companies to capture methane from its mines to produce commercial quality gas for sale, while enhancing mine safety.	

Foundation Coal Holdings Inc.

NYSE: ***FCL***
Industry: ***Coal***

Foundation Coal acknowledges that greenhouse gas controls could reduce demand for coal as a source for electric power generation. However, the company has not articulated a strategy to address climate change or to track and control its GHG emissions.
The company declined to comment on this profile.

Summary Score: 5

Company Information

Foundation Coal is the fifth largest coal producer in the United States. Its affiliates operate mines in the Powder River, Illinois, Northern Appalachia and Central Appalachia basins. It supplies coal to more than 80 customers across the nation. It had sales of about $1billion in 2004.

Contact Information

CEO / Chairman	James F. Roberts / William E. Macaulay
Contact	Tel: 410-689-7500 • Web: www.foundationcoal.com
Address	999 Corporate Blvd Ste 300 Linthicum Heights, MD 21090-2227 USA

Board Oversight

Score: 0

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 0

CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 3

Company Statement	None identified, except for Form 10-K below
Securities Filings Statement	*Excerpt from Form 10-K :* "Although the [Kyoto] Protocol is still not binding on the United States, and no comprehensive regulations focusing on [GHG] emissions are in place, these restrictions, whether through ratification of the emission targets or other efforts to stabilize or reduce [GHG] emissions, could adversely affect the price and demand for coal. Countries that have to reduce emissions may use less coal, affecting demand for United States export coal. There could be pressure on companies in the United States to reduce emissions if they want to trade with countries that are part of the Protocol. In addition, some states in the United States have adopted or may adopt in the future regulations on [GHG] emissions. Some states and municipal entities have commenced litigation in different jurisdictions seeking to have certain utilities, including some of our customers, reduce their emission of carbon dioxide. If successful, there could be limitation on the amount of coal our customers could utilize. Future regulation of [GHG] emissions may be implemented as part of or distinct from the Protocol. Any of these measures could affect coal demand at [U.S.] utilities."
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Not queried.

Foundation Coal Holdings Inc.

NYSE: ***FCL***
Industry: ***Coal***

Emissions Accounting		***Score: 0***
Savings Calculated by Company	None identified.	
GHG Emissions Inventory	None identified.	

Strategic Planning		***Score: 2***
Emissions Targets	None identified.	
GHG Emissions Trading	None identified.	
Green Power	None identified.	
Energy Efficiency	None identified.	
Commercial Business	Foundation Coal is a founding member of the FutureGen Industrial Alliance, a global coalition of coal companies and electric utilities working with the U.S. Department of Energy to develop "the ultimate coal-fueled power plant of the future" offering near-zero emissions, carbon capture, sequestration technologies and hydrogen production facilities. In 2005, FutureGen announced plans for a 275-megawatt protoype plant, scheduled for operation in the next decade.	

Peabody Energy Corp.

NYSE: ***BTU***
Industry: ***Coal***

Peabody Energy acknowledges that GHG controls could reduce demand for coal as a fuel for electric power generation, but says continued study of climate change is needed to resolve "uncertain and often conflicting research." Peabody says it has improved its greenhouse gas intensity per unit of production by 40% since 1990. It is a partner in government-industry research on "clean-coal" technologies that could harness energy and capture CO_2 emissions. It is also proposing to build several large mine-mouth coal-fired power plants in the near future.

Summary Score: 23

Company Information

Peabody Energy is the world's largest coal company. Its coal products fuel 10% of U.S. and 3% of worldwide electricity. Peabody serves 300 customers in 16 nations on five continents. In addition to serving electricity and steelmaking customers, the company says it is growing to serve new global customers and emerging "Btu conversion markets" that transform coal's energy into clean electricity, synthetic natural gas, transportation fuels and hydrogen. It had sales of $3.6 billion in 2004.

Contact Information

CEO / Chairman	Gregory H. Boyce (as of Jan. 1, 2006)
Contact	Tel: 314-342-3400 • Web: www.peabodyenergy.com
Address	701 Market St Saint Louis, MO 63101-1895 USA

Board Oversight

Score: 1

Board Committee	Nominating and Corporate Governance Committee
Committee Chair	Blanche M. Touhill, Chancellor Emeritus, University of Missouri–St. Louis
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 2

CEO Statement	None identified.
Chief Environmental Officer	Charles Burggraf, Group Vice President, Technical Services
Levels to CEO	0
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 5

Company Statement

From a December 2005 Statement to IRRC:

"While the effects of human interaction on the climate continue to be studied, Peabody supports technology-based solutions to carbon concerns and voluntary programs to improve efficiency and greenhouse gas intensity. We advocate an approach toward carbon management that will:

- Improve the scientific understanding of the existence and cause of climate change;
- Develop a better understanding of the ability of plant life and oceans to serve as carbon-absorbing sinks;
- Advance technologies that would chemically or physically capture and sequester carbon dioxide, chief of which is the FutureGen Industrial Alliance which includes significant participation from U.S. and China energy companies; and
- Promote increases in efficiencies to reduce the energy input needed for electricity generation."

Peabody Energy Corp.

NYSE: ***BTU***
Industry: ***Coal***

Public Disclosure	*(continued)*
Securities Filings Statement	*Excerpt from Form 10-K:* "Although the United States has not ratified the emission targets and no comprehensive regulations focusing on [GHG] emissions are in place in the U.S., these restrictions, whether through ratification of the emission targets or other efforts to stabilize or reduce [GHG] emissions, could adversely affect the price and demand for coal. According to the Department of Energy's Energy Information Administration, Emissions of Greenhouse Gases in the United States 2003, coal accounts for 31% of [GHG] emissions in the United States, and efforts to control [these] emissions could result in reduced use of coal if electricity generators switch to lower carbon sources of fuel…. Ratification and implementation of the Kyoto Protocol by the United States or other actions to limit carbon dioxide emissions could result in fuel switching, from coal to other fuel sources, by electric generators."
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Not queried.

Emissions Accounting	***Score: 7***
Savings Calculated by Company	***Amount:*** 564,544 tonnes of CO_2 equivalent as of 2002 ***Scope:*** Project level These savings were reported to the U.S. Energy Information Administration under the Section 1605(b) reporting program.
GHG Emissions Inventory	None identified. Peabody says it has reduced its greenhouse gas intensity per unit of production by 40% since 1990.
Third-Party Verification	None identified.

Strategic Planning	***Score: 8***
Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	None identified.
Commercial Business	Peabody says it growing to serve new global customers and emerging "Btu conversion markets" that transform coal's energy into clean electricity, synthetic natural gas, transportation fuels and hydrogen. The company is a founding member of the FutureGen Industrial Alliance, a global coalition of coal companies and electric utilities working with the U.S. Department of Energy (DOE) to develop "the ultimate coal-fueled power plant of the future" offering near-zero emissions, carbon capture, sequestration technologies and hydrogen production facilities. In 2005, FutureGen announced plans for a 275-megawatt protoype plant, scheduled for operation in the next decade. In October 2004, Peabody's Mustang Energy Project was awarded a $19.7 million Clean Coal Power Initiative Grant from DOE to demonstrate technology to achieve ultra low emissions and "carbon-capture ready" technology. The project is expected to be operational following a four-year construction phase, which would begin when the company has completed all necessary permitting, selected partners, secured financing and sold the majority of the output of the plant. Peabody also is proposing to build several large mine-mouth coal-fired power plants in the near future.

Rio Tinto PLC

NYSE: ***RTP***
Industry: ***Coal***

Rio Tinto has a Climate Change Leadership Panel and a group climate change executive to help coordinate greenhouse gas reduction efforts among the company's business groups. The company's Executive Committee and a board Committee for Social and Environmental Accountability oversee this work. Rio Tinto says it supports government action in target setting, technology development and use of market-based instruments to limit GHG emissions. It is developing "low emissions pathways" for its products to reduce the GHG emissions intensity in coal combustion, metals smelting and electricity use. Rio Tinto has set five-year targets to reduce its GHG intensity rates; the current goal is a 4% decrease in 2004–2008. Rio Tinto has also calculated its overall carbon footprint, and expects its emissions to grow due to business growth. It believes carbon capture and storage is key to maintaining coal as a viable generating option.

Summary Score: 57

Company Information	
	Rio Tinto, one of the world's largest coal and mining operations, comprises dual-listed companies Rio Tinto Limited (based in Australia) and Rio Tinto plc (based in the U.K.). Although each company trades separately, the two Rio Tintos operate as one business. Rio Tinto mines coal, iron, copper, uranium, borax, salt, talc, aluminum, gold and diamonds. It had sales of $11.8 billion in 2004.
Contact Information	
CEO / Chairman	R. Leigh Clifford / Paul W. Skinner
Contact	Tel: +44 (0)20 7930 2399 • Web: www.riotinto.com
Address	6 St.James 's Square London, England SW1Y 4LD UK
Board Oversight	***Score: 7***
Board Committee	Committee for Social and Environmental Accountability
Committee Chair	Richard Goodmanson, Non-executive Director of Rio Tinto and Executive Vice President and Chief Operating Officer of DuPont Co.
Actions Taken	The Committee for Social and Environmental Accountability regularly reviews the compliance of Rio Tinto Group businesses with corporate policies, including climate change. The committee receives regular reports on the implementation of the group's corporate policies from the head of health, safety and environment and the head of communications and sustainable development.
Management Execution	***Score: 11***
CEO Statement	*Speech by CEO Clifford at a coal conference in Paris, France, in October 2005:* ""[P]erceptions of coal remain poor. It is seen by many as a 'dirty' fuel, despite years of cleaning up our act… Greenpeace flew banners stating 'Coal fuels climate change'. So we have an uphill struggle on our hands, if we want to bring the very real benefits of coal to the world without disruption…. "We need to convince people there is a solution; and we need to help utilities to deliver that solution… [For example, we need] to support and promote the development of geosequestration as a means of capturing and storing CO_2… Carbon capture and storage, or CCS, has the potential to cut the global cost of reducing emissions; it could also enable us to reduce emissions faster. So CCS is an important avenue to pursue. And governments have an essential part to play… The 6-nation Asian Pacific Partnership for Clean Development and Climate is one such initiative. The G8+5 Dialogue is another. Governments are increasingly imposing higher emissions standards. It's in all our interests for coal producers and power utilities to combine forces in the search for technology solutions."
Chief Environmental Officer	Elaine Dorward-King, Head of Health, Safety and Environment
Levels to CEO	1
Climate Change Executive	Laurel Green, Group Climate Change Executive Green works in Rio Tinto's energy group, which assumes lead responsibility for addressing climate change. She informs the board and Executive Committee on climate change issues and assists in developing Rio Tinto's responses. Several other product groups also have individuals whose work focuses solely or predominantly on climate change issues. Green and three other company representatives serve on the Pew Center on Global Climate Change's Business Environmental Leadership Council.

Rio Tinto PLC

NYSE: ***RTP***
Industry: ***Coal***

Management Execution *(continued)*

Executive Committee

Climate Change Leadership Panel.

Formed in 2005, this panel develops, guides and provides oversight on Rio Tinto's climate change action plan. It also provides high-level communication between business group managers and top executives. Managing directors are also responsible for complying with company-issued climate change directives. At the business level, business unit managing directors are accountable for identifying and managing climate change related risks and opportunities.

Link to Executive Compensation

None identified.

Public Disclosure ***Score: 10***

Company Statement

From company website:

"Rio Tinto believes that [GHG] emissions resulting from human activities are contributing to climate change. Avoiding human caused changes to the climate is an important international goal. In order to achieve this goal the world needs reductions in [GHG] emissions. Actions are required to improve our understanding of the problem and provide solutions for both adaptation and [GHG] emissions abatement. Rio Tinto recognizes that addressing the challenge of climate change will impose costs for GHG abatement and necessitate a change in the way the world uses energy. A full and comprehensive portfolio of policy and technology options will be required to achieve the highest benefit and lowest overall cost for society."

Securities Filings Statement

From Form 20-F:

The Form 20-F reprints Chairman Skinner's 2004 annual letter to shareholders, in which he says, "Our sustainable development programs are responding positively to a range of issues including… climate change." In 2004, the statement said, "significant work continued on ways to improve efficiency of [GHG] emissions, energy use and water withdrawn from the environment." Rio Tinto also finalized and approved its environmental standards for implementation by June 2005.

Company Report

2004 Sustainable Development Review—Meeting global needs for minerals and metals

GRI Report

See above.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting ***Score: 16***

Savings Calculated by Company

Amount: 1,162,000 tonnes of CO_2e ***Scope:*** Entity-level
Time frame: 2001–2004

These savings resulted from 268 projects to improve energy efficiency and reduce GHG emissions. In Australia, Rio Tinto has been a member of the GHG Challenge program since 1996 and has reported savings of 1.65 million tonnes of CO_2e, mainly as a result of PFC reductions and smelter efficiency improvements. Rio Tinto also reduced its GHG intensity of production by 4.8% in 1998–2001.

Amount: 13% decrease in CO_2e emissions intensity ***Scope:*** Aluminum operations in New Zealand ***Savings period:*** 1990–2000

Rio Tinto's subsidiary, Comalco, was one of the first companies in New Zealand to sign an emissions reduction agreement under the government's scheme to reduce GHG emissions through voluntary efforts. In 1995, Comalco set a target to reduce its CO_2e emissions per tonne of aluminum produced by 4% below 1990 levels by 2000. It achieved a 13.4% reduction in its intensity target. The voluntary agreement has expired, but Comalco continues to implement initiatives to reduce emissions.

GHG Emissions Inventory

2004 Amount: 25,300,000 tonnes of CO_2e ***Region:*** Global
2000 Amount: 23,000,000 tonnes of CO_2e ***Region:*** Global

The 2004 inventory includes 13.3 million tonnes of direct emissions from owned and operated facilities and 12 million tons of net indirect emissions associated with electricity and steam purchases and sales. Of these emissions, 21.4 million tonnes were in countries subject to emission control limits under the Kyoto Protocol. (However, 70% of these emissions were in the U.S. and Australia, which have not ratified the protocol.) Total emissions grew 10% in 2000–2004 because of business growth. More growth is expected.

Rio Tinto PLC

NYSE: ***RTP***
Industry: ***Coal***

Emissions Accounting	*(continued)*
Carbon Footprint	In 2004, Rio Tinto estimated the amount of CO_2e emissions from two of its main products—coal and iron ore. Combustion of company coal products produced about 354 million tonnes of CO_2e. Conversion of the company's iron ore product into steel through smelting operations contributed about 217 million tonnes of CO_2e. These two emission sources are not simply additive, because some Rio Tinto coal product is used for steel making.
Third Party Vertification	No.
Reporting Protocol	GHG Protocol

Strategic Planning	***Score: 13***
Emissions Targets	***Baseline year:*** 2003 ***Target year:*** 2008 ***Region:*** Global (intensity rate) ***Amount:*** 4% decrease in CO_2e per tonne of product Rio Tinto reported a 0.5% increase in its GHG intensity rate in 2004, but says "measures are being put in place to refocus attention on meeting the targets." Since 2000, its GHG intensity rate has fallen 30%, from 0.104 tonne of CO_2e per tonne of product to 0.073 in 2004. Virtually all of this reduction was due to shifts in product mix that have come about from acquisitions and internal growth at bulk commodity iron ore and coal operations, which are much less energy intensive than smelting based operations. However, commissioning of an alumina refinery and iron making smelter is expected to increase the GHG intensity of its operations in the future. Geological issues unique to the minerals sector, including progressively deeper ore bodies, lower grades and harder ores, also will result in higher GHG intensity rates."
GHG Emissions Trading	***Voluntary programs***—Rio Tinto negotiated agreements in the United Kingdom and New Zealand to reduce emissions, and it has purchased credits through the U.K. Emissions Trading Scheme. It has also created land management offsets in Western Australia. ***Government programs***—None.
Green Power	Rio Tinto says it is investigating the development of hydro, wind and geothermal projects to provide energy to its operations. It has purchased Renewable Energy Certificates in Australia and "Greentags" in Montana, adjacent to Yellowstone National Park.
Energy Efficiency	Energy efficiency improvements have been a key focus of Rio Tinto's mining and milling operations, and as its aluminum and titanium slag smelting facilities. It is also working on reusing smelter gases, such as carbon monoxide, at iron and titanium smelters to boost energy efficiency. Similarly, Rio Tinto is targeting emissions associated with milling through internal initiatives, which typically improve energy efficiency and result in energy cost savings of around 10%. Rio Tinto also generates much of its own power to extract iron ore, alumina, salt and diamonds. At many of these operations, Rio Tinto has achieved energy efficiency improvements through the installation of combined heat and power plants, use of waste heat and re-firing of boilers and furnaces with natural gas.
Commercial Business	A significant portion of the products Rio Tinto sells is in the form of coal, which is mostly used by other companies to generate electricity. Rio Tinto sees progress in carbon capture and storage technologies and in the longer-term movement toward the hydrogen economy, which is says will reduce the GHG emissions that its products produce. While Rio Tinto has little direct involvement in the electricity supply sector, it is assisting the development of innovative technologies by contributing its knowledge of coal properties and of clean coal technologies through several consortiums, including the Electric Power Research Institute, the Australian Coal Association Research Program, the FutureGen Industrial Alliance and the Cooperative Research Center for Coal in Sustainable Development. In the iron and steel sector, Rio Tinto has developed "HIsmelt" smelting technology, which emits far fewer greenhouse gases than conventional technologies; construction of a demonstration facility has been completed in Australia.

Corporate Governance Profiles

Food Production

Archer-Daniels-Midland Co.

NYSE: ***ADM***
Industry: ***Food production***

ADM has not addressed climate change as a governance issue. It has taken measures to increase energy efficiency, including installing a number of cogeneration facilities since 1985. It regards corn-based ethanol and vegetable-based biodiesel as new business opportunities.

Summary Score: 12

Company Information

ADM is engaged in the processing and merchandising of raw agricultural commodities that are used in the production of food and beverage products. Most of the company's business involves converting raw soybeans, corn and wheat into further-processed ingredients for the food manufacturing industry. It had sales of $36.1 billion in 2004.

Contact Information

CEO / Chairman	G. Allen Andreas
Contact	Tel: 217-424-5200 • Web: www.admworld.com
Address	4666 E Faries Pkwy Box 1470 Decatur, IL 62526-5666 USA

Board Oversight

Score: 0

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 0

CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 0

Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Not queried.

Emissions Accounting

Score: 2

Savings Calculated by Company	None identified.
GHG Emissions Inventory	Not disclosed. ADM has completed an inventory for all U.S. and most Canadian facilities, but has not publicly disclosed this information.
Third Party Vertification	No.
Reporting Protocol	Not identified.

Archer-Daniels-Midland Co.

NYSE: ***ADM***
Industry: ***Food production***

Strategic Planning	***Score: 10***
Emissions Targets	None identified. ADM is a member of the Business Roundtable's Climate RESOLVE program, which establishes voluntary targets to reduce the greenhouse gas intensity of production by various industries.
GHG Emissions Trading	***Voluntary programs***—ADM has participated in the UK Emissions Trading Scheme. ***Government programs***—None .
Green Power	See Commercial Business.
Energy Efficiency	ADM participates in U.S. EPA's Energy Star Industrial Focus group for the Corn Wet Milling industry sector. ADM utilizes consultant and in-house energy efficiency programs to monitor and reduce energy usage. ADM has constructed a number of energy efficient co-generation (combined heat and power) facilities since 1985. ADM is also a founding partner of EPA's Combined Heat and Power Partnership.
Commercial Business	ADM is a leading producer of ethanol, a corn-based product that helps gasoline burn more cleanly. (The environmental benefit of corn-based ethanol is a source of debate. Its contribution to CO2 emission reductions may be negligible because of the energy-intensive farming and production process.) ADM says on its website: "In the years to come, ADM will remain committed to growing domestic ethanol supplies. Meanwhile, ADM will continue to help build demand for ethanol through participation in industry coalitions, legislative efforts, and public awareness campaigns." ADM is also a leading producer of biodiesel, a vegetable-based "green power" fuel.

Altria Group Inc.

NYSE: ***MO***
Industry: ***Food production***

Altria Group has not addressed climate change as a governance issue. However, subsidiary Kraft Foods reported on energy use and GHG emission trends.

Summary Score: 11

Company Information

Altria Group, Inc. is the parent company of Kraft Foods, Philip Morris International, Philip Morris USA and Philip Morris Capital Corporation. Altria Group is also a major shareholder in SABMiller plc (a brewer). It had sales of $89.6 billion in 2004.

Contact Information

CEO / Chairman	Loius C. Camilleri
Contact	Tel: 917-663-4000 • Web: www.altria.com
Address	120 Park Ave New York, NY 10017-5592 USA

Board Oversight

Score: 2

Board Committee	Public Affairs and Social Responsibility Committee
Committee Chair	Elizabeth Bailey, Professor, The Wharton School of the University of Pennsylvania
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 2

Chairman Statement	None identified.
Chief Environmental Officer	Jay Poole, Viced President, Agricultural & Environmental Strategies
Levels to CEO	1
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 1

Company Statement

From Kraft Food's 2005 response to Carbon Disclosure Project:

"Kraft recognizes that climate change is among the most complex and debated environmental issues facing governments and businesses around the world. We have followed policy developments on a global scale for several years, including the actions taken by many national governments to adopt climate change policies and regulations, such as the Kyoto Protocol, and on a regional level, e.g., E.U. Emissions Trading Scheme.

"We are one of the world's largest purchasers of agricultural products. Floods, droughts, and other changing climatic conditions have the potential to impact the availability and cost of our raw materials. We understand the need to address [GHG] emissions and their potential impact on the natural environment.

"Kraft's manufacturing operations are not especially energy intensive in comparison with many other industries. The majority of our direct CO_2 emissions come from burning of fossil fuels (natural gas, fuel oil) in our manufacturing operations and indirect emissions from purchased electricity.

"We want to do our part to support global efforts by managing the GHG emissions related to our operations. Therefore, we are taking proactive steps to reduce the impacts of our business."

Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Kraft, Altria's subsidiary, answered questionnaire, permitted disclosure in 2005. Altria has not responded to any of the questionnaires it has received from CDP.

Altria Group Inc.

NYSE: ***MO***
Industry: ***Food production***

Emissions Accounting

Score: 5

Savings Calculated by Company

Not quantified.

In the United States, Kraft Foods, Altria's subsidiary, participates in a voluntary effort with the US Environmental Protection Agency, eliminating the use of ozone depleting substances (CFCs and/or HCFCs) in industrial process equipment at nine of its US bakeries. This resulted in the permanent removal of 5.44 tonnes of ozone depleting substances (some of which are also potent greenhouse gases). Internationally, its manufacturing facilities have virtually eliminated the use of all CFCs.

GHG Emissions Inventory

2004 Amount: 3,040,000 tonnes of CO_2 ***Region:*** Global (Kraft Foods)
2002 Amount: 3,030,000 tonnes of CO_2 ***Region:*** Global (Kraft Foods)

Kraft's global production increased 10% over the period, while its CO_2 emissions from manufacturing operations and purchase of electricity were essentially flat.

Third Party Certification

No.

Reporting Protocol

None identified.

Strategic Planning

Score: 1

Emissions Targets

None identified.

GHG Emissions Trading

None identified.

Green Power

Since 2002, Kraft Foods has used renewable biogas in one boiler at its confections plant in Creston, Iowa. The biogas, a byproduct of the plant's wastewater treatment process, had previously been burned as waste. This energy-reduction project has helped lower natural gas purchases by more than 5% annually.

Energy Efficiency

At a Kraft confectionery plant in Pokrov, Russia, an energy control program and transfer to a differential tariff system has reduced the plant's energy consumption by 4% per ton of production and costs by approximately 10%, for an estimated annual savings of $105,000. In addition, the plant reduced natural gas consumption 7% with the installation of electronic measurement equipment.

Commercial Business

None identified.

Bunge Ltd.

NYSE: ***BG***
Industry: ***Food production***

Bunge has not addressed climate change as a governance issue. It does have a Productivity, Quality, Safety and Environment Initiative, and reports that it is in a partnership with EcoInvest to promote energy efficiency and GHG reduction at the company and for third parties.

Summary Score: 5

Company Information	
	Bunge is an integrated, global agribusiness and food company operating in the farm-to-consumer food chain, with operations ranging from sales of raw materials such as grains and fertilizers to retail food products such as margarine and mayonnaise. It is the world's leading oilseed processing company, the largest producer and supplier of fertilizers to farmers in South America and a leading seller of bottled vegetable oils worldwide. It had sales of $25.2 billion in 2004.
Contact Information	
CEO / Chairman	Alberto Weisser
Contact	Tel: 914-684-2800 • Web: www.bunge.com
Address	50 Main St White Plains, NY 10606-1901 USA
Board Oversight	***Score: 0***
Board Committee	None identified.
Actions Taken	None identified.
Management Execution	***Score: 1***
CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	None identified.
Executive Committee	None identified. Bunge has a Productivity, Quality, Safety and Environment Initiative comprised of a senior council and working groups that develop, implement and monitor the program. This initiative has not addressed climate change or GHG emissions.
Link to Executive Compensation	None identified.
Public Disclosure	***Score: 1***
Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Not queried.
Emissions Accounting	***Score: 1***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified.
Strategic Planning	***Score: 2***
Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	In Brazil, the company meets a significant percentage of its energy requirements through use of renewable biomass sources, such as plantation wood, sugarcane bagasse and rice hulls.
Energy Efficiency	Bunge is partnering with EcoInvest to promote energy efficiency and GHG reductions at company facilities and for third parties.
Commercial Business	None identified.

ConAgra Foods Inc.

NYSE: ***CAG***
Industry: ***Food production***

ConAgra has not addressed the climate change as a governance issue. The company does employ a senior vice president for sustainable development and has identified improvements in energy efficiency as one of its corporate goals.

Summary Score: 4

Company Information	
	ConAgra Foods is one of North America's largest packaged food companies, serving consumer grocery retailers, as well as restaurants and other foodservice establishments. The company has divested its crop input, poultry, pork and beef businesses. It had sales of $14.6 billion in fiscal 2005.

Contact Information	
President / CEO	Gary Rodkin
Contact	Tel: 402-595-4000 • Web: www.conagra.com
Address	One Conagra Dr Omaha, NE 68102-5001 USA

Board Oversight	***Score: 0***
Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution	***Score: 3***
CEO Statement	None identified.
Chief Environmental Officer	Michael Walter, Senior Vice President, Sustainable Development and Environmental Affairs
Levels to CEO	Not determined.
Climate Change Executive	None identified.
Executive Committee	None identified. ConAgra's Sustainable Development Council provides leadership, motivation and information on environmental issues. However, most environmental data for operating companies, such as environmental staff, emissions reductions and recycling rates, is not collected centrally.
Link to Executive Compensation	ConAgra told IRRC in 2003 that environmental performance is a factor in executive compensation.

Public Disclosure	***Score: 0***
Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None.
Carbon Disclosure Project	Did not respond to 2005 questionnaire.

Emissions Accounting	***Score: 0***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified.

Strategic Planning	***Score: 1***
Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	ConAgra says that increasing the energy efficiency of production processes is a company goal. It has installed new energy-efficient/saving technologies at various facilities around the country.
Commercial Business	None identified.

General Mills Inc.

NYSE: ***GIS***
Industry: ***Food production***

General Mills has conducted an inventory of its GHG emissions and set a goal to reduce energy use by 5% per case of finished product in 2001–2005. These reductions have focused on company facilities and transport of products. The company has issued a social responsibility report that briefly addresses these topics, but otherwise has disclosed relatively little information on its strategies to address climate change.

Summary Score: 22

Company Information

General Mills is a leading producer of packaged consumer foods and operates exclusively in the consumer foods industry. It provides ready-to-eat cereals, meals, refrigerated and frozen dough products, baking products, snacks, yogurt and organic foods in the United States. It also markets products throughout North America to retail and wholesale bakeries, foodservice distributors and operators, and convenience stores. Outside of the United States, the company manufactures products in 13 countries and distributes them in more than 100 countries. It had sales of $18.1 billion in fiscal 2004.

Contact Information

CEO / Chairman	Stephen W. Sanger
Contact	Tel: 763-764-7600 • Web: www.generalmills.com
Address	Number One General Mills Blvd Minneapolis, MN 55426 USA

Board Oversight

Score: 3

Board Committee	Public Responsibility Committee
Committee Chair	Judith Hope, Adjunct Professor, Georgetown University Law School.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 3

Chairman Statement	None identified.
Chief Environmental Officer	Timothy Crimmins, Vice President, Health, Safety and Environment
Levels to CEO	1
Climate Change Executive	None identified. General Mills told the Carbon Disclosure Project that its Senior Vice President for Human Resources is the executive responsible for climate change related issues.
Executive Committee	General Mills has established an unnamed internal task force to track and review GHG emissions and implement a cohesive program across its businesses. It has also initiated an energy usage tracking system.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 4

Company Statement	*Response to 2005 Carbon Disclosure Project:* "If severe climate changes were to occur, the effects could change both the amount and location of available food-based raw materials for our businesses. In addition, the water resources could be affected. Both of these factors could alter the raw materials available for food processing. General Mills continues to obtain food supplies from a variety of sources around the world, consistent with the demands of our food consumers. This strategy will continue, and would evolve based on the availability of food resources. "Emission reductions related to greenhouse gas emissions are directly related to our energy conservation programs. We continue to seek energy reduction measures, directed at reducing the cost of our energy usage. Money saved from these efforts helps support the overall viability and competitiveness of our business."
Securities Filings Statement	None identified.
Company Report	*Corporate Social Responsibility Report* (2005)
GRI Report	None.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

General Mills Inc.

NYSE: ***GIS***
Industry: ***Food production***

Emissions Accounting		***Score: 8***
Savings Calculated by Company	None identified.	
GHG Emissions Inventory	***2004 Amount:*** 1,000,000 tonnes of CO_2e ***Region:*** Global ***2001 Amount:*** 800,000 tonnes of CO_2e ***Region:*** Global General Mills estimates that it emits 50,000 tonnes of CO_2e in countries subject to the E.U. Emissions Trading Scheme. Emissions are associated with the company's supply chain, not with its products or business travel.	
Third Party Certification	No.	
Reporting Protocol	None identified.	

Strategic Planning		***Score: 4***
Emissions Targets	***Baseline year:*** 2001 ***Target year:*** 2005 ***Region:*** North America ***Amount:*** 5% decrease in energy use per caseload of finished product Energy costs equal 2% of the costs of goods sold. Cost of petroleum-derived packaging materials adds another 4% to the costs of goods sold.	
GHG Emissions Trading	None identified. General Mills says it is monitoring the programs for the E.U. Emissions Trading Scheme and the Chicago Climate Exchange. It says the relative size of its facilities regulated or eligible for these schemes has not warranted specific involvement thus far. It continues to collect and compile its energy usage information to participate in these programs in the future if warranted or required.	
Green Power	None identified.	
Energy Efficiency	General Mills highlights its commitment to improving energy conservation and efficiency as a fundamental part of reducing emissions. It has installed energy efficient refrigeration, eliminated CFC systems, retrofitted lighting systems, centralized energy tracking systems, and promoted energy conservation through water re-circulation for cooling and other reuse methods for heat recovery. Each of its businesses monitor energy usage and have conservation targets. Since fiscal 2000, its North American operations have reduced total energy usage by 6% — nearly 1 million kWh. Its international facilities reduced their energy usage by 3% over the same period.	
Commercial Business	None identified.	

Nestlé SA

NASDAQ/OTC Bulletin Board : ***3NSRGY***

Industry: ***Food production***

Nestlé has an Environmental Advisory Group that meets regularly to review environmental issues. Environmental officers at the national level and headquarters are responsible for managing climate change related issues. The company sets internal targets each year to improve energy efficiency, but does not set accompanying GHG reduction targets. Nestle's latest full-length environmental report was published in 2000. Recently updated performance metrics show that Nestle's CO_2 emissions decreased by 10% in 1998–2004, while emissions per tonne of product produced decreased by 37.5%. Nestlé is also focused on replacement of ozone-depleting refrigerants with high GHG potential and reformulating product packaging to have minimal environmental impact.

Summary Score: 29

Company Information

Nestlé is the number one food company in the world in terms of sales. Its products include baby foods, breakfast cereals, chocolate and confectionary, beverages and dairy foods. It had sales of $76.7 billion in 2004.

Contact Information

CEO / Chairman	Peter Brabeck-Letmathe
Contact	Tel: 021.924.21.11 • Web: www.nestle.com
Address	Avenue Nestle 55 Vevey, Switzerland 1800 Switzerland

Board Oversight

Score: 2

Board Committee	Audit Committee
Committee Chair	Rolf Hanggi, consultant and 2nd Vice Chairman
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 6

CEO Statement	*From 2000 Environmental Progress Report:* "I am pleased about the clear progress in a number of key areas, including a significant decline in the amounts of water and energy used to bring each kilo of Nestlé products into your home, and a similar reduction in factors which potentially affect global warming. However, we are never completely satisfied with our current performance, and are committed to further environmental improvements."
Chief Environmental Officer	Claus Conzelmann, Vice President and Corporate Environmental Officer
Levels to CEO	1
Climate Change Executive	Werner Bauer, Executive Vice President, is in charge of Nestle's techincal, production, environmental, research and developmental affairs, including climate change.
Executive Committee	Nestlé Environmental Advisory Group This group meets regularly to review current and future environmental issues and to coordinate environmental strategy, planning and action. Environmental officers at the national level and at the international head-office are in charge of managing climate change related issues. The Environmental Advisory Group is led by Conzelmann, above, and includes specialists representing Environmental Affairs, Agricultural Services, Engineering, Research & Development, Purchasing, geographical Zone Technical Management, Packaging, Distribution, Quality Management, and Public Affairs.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 3

Company Statement	*From 2004 Response to Carbon Disclosure Project:* "According to generally accepted information, climate change poses a variety of potential risks. "Change in ecological balance and in weather patterns may possibly result in shortages in agricultural raw materials, shortages in water, floods, cyclones... which may disrupt the supply chain, including means of transport. Cost of natural resources and energy may increase dramatically. Availability and reliability of both electricity and natural gas may be jeopardized. Moreover, climate change may affect local communities and food consumption habits."

Nestlé SA

NASDAQ/OTC Bulletin Board : ***3NSRGY***
Industry: ***Food production***

Public Disclosure	*(continued)*
Securities Filings Statement	None identified.
Company Report	***Environment—Progress Report 2000***
GRI Report	None identified.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

Emissions Accounting	***Score: 10***
Savings Calculated by Company	***Amount:*** 51,000 tonne reduction in CO_2 emissions ***Scope:*** Project level ***Time frame:*** Annual Nestlé has quantified CO_2 emission savings from at least two projects. A Nescafé factory in Himeji, Japan, uses combined heat and power generation to achieve a 92% efficiency rating, saving 32,000 tonnes of CO_2 per year. A Nestlé factory in Graneros, Chile, converted its air heaters and boilers from oil and coal to natural gas, saving 19,000 tonnes of CO_2 a year. Nestlé provides other examples of energy saving projects in its Environmental Progress Report, but does not quantify their CO_2 emissions savings. Nestlé also is investing in six industrial refrigeration plants to eliminate use of 80 tons of R22 refrigerant, which is an ozone depleting substance and a potent greenhouse gas. Nestlé is also extending this model line to smaller commercial refrigeration units, and has started building and testing ice cream freezers with CO_2 refrigeration systems that have a negligible impact on the environment. Nestlé also is reducing the amount of packaging material needed for its products, which reduces methane emissions at the time of disposal. In the United Kingdom, Nestlé has launched new packaging made from a renewable resource that consumes 50% less energy during its life cycle than the previous oil-based plastic. This packaging material is corn starch-based, compostable and carbon neutral.
GHG Emissions Inventory	***2004 Amount:*** 4,410,000 tonnes of CO_2 equivalent ***Region:*** Global ***1998 Amount:*** 4,900,000 tonnes of CO_2 equivalent ***Region:*** Global ***2004 Amount:*** 133 kilograms of CO_2/ton product ***Region:*** Global (intensity rate) ***1998 Amount:*** 212 kilograms of CO_2/ ton product ***Region:*** Global (intensity rate)
Third Party Vertification	No.
Reporting Protocol	None identified.

Strategic Planning	***Score: 8***
Emissions Targets	None identified. Nestle has set energy savings targets, but has not quantified accompanying GHG reduction goals.
GHG Emissions Trading	***Voluntary programs***—Nestlé has received CO_2 emission credits for fuel switching at its factory in Graneros, Chile, which qualified under the Clean Development Mechanism of the Kyoto Protocol. The resulting credits were sold to a Japanese company. Nestlé has also participated in the U.K. Emissions Trading Scheme. ***Government programs***—Some Nestlé facilities in Europe are subject to the E.U. Emissions Trading Scheme.
Green Power	Nestlé's worldwide operations include more than 20 factories that use spent coffee grounds as a supplemental fuel. These spent coffee grounds, totaling 800,000 tons per year, do not have to be landfilled and reduce the need for non-renewable fuels in these factories.
Energy Efficiency	As part of Nestlé Environmental Management System, NEMS, aligned with ISO 14001, Nestlé continuously improves its energy efficiency. An internal target is fixed every year and progress is closely monitored through Environmental Performance Indicators.
Commercial Business	None identified.

PepsiCo Inc.

NYSE: ***PEP***
Industry: ***Food production***

PepsiCo established a Sustainability Task Force in 2004, but it is unclear whether this task force has addressed climate change. PepsiCo says it is working toward establishing a protocol and baseline inventory for tracking GHG emissions. It also has set targets to reduce the intensity of water, energy and electricity use. PepsiCo has published sustainability reports in recent years, but they do not contain specific information on climate change or GHG emissions.

Summary Score: 9

Company Information	
	PepsiCo is a global food and beverage company that operates in more than 200 countries. PepsiCo operates in four divisions: Frito-Lay North America, PepsiCo Beverages North America, PepsiCo International, and Quaker Foods North America. It had sales of almost $30 billion in 2004.

Contact Information	
CEO / Chairman	Steven S. Reinemund
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Address	700 Anderson Hill Rd Purchase, NY 10577-1444 USA

Board Oversight	***Score: 0***
Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution	***Score: 3***
CEO Statement	None identified.
Chief Environmental Officer	None identified. David Andrews is the Senior Vice President for Government Affairs.
Climate Change Executive	None identified.
Executive Committee	Sustainability Task Force (STF) PepsiCo established this task force in 2004, but it is unclear whether this task force has addressed climate change. The STF is headed by Steven Gold, Senior Vice President of Supply Chain, and includes executive officers, research and development heads from different divisions, top finance and compliance officers, and the Director of Energy and Utilities. The STF is supported by the company's Environmental Task Force, comprised of key divisional environmental personnel.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 3***
Company Statement	*From 2005 response to Carbon Disclosure Project:* "We believe it is important to reduce emissions and have adopted a strategy of both minimization (conservation) and optimization (seeking ways to use renewable energy)."
Securities Filings Statement	None identified.
Company Report	*Sustainable Advantage* (2004)
GRI Report	See above.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

PepsiCo Inc.

NYSE: ***PEP***
Industry: ***Food production***

Emissions Accounting		***Score: 2***
Savings Calculated by Company	***Amount:*** 72,000 tonnes of CO_2 annually	***Scope:*** Project level
	Quaker Oats' Cedar Rapids sends by-product oat hulls as a renewable, biomass fuel source for the University of Iowa power plant, displacing coal that would otherwise be burned in that facility.	
	Frito-Lay has a resource conservation program that is focused on reductions in fuel and electricity consumption. It has not quantified corresponding reductions in GHG emissions.	
	PepsiCo and Frito-Lay are members of EPA's Energy Star program.	
GHG Emissions Inventory	PepsiCo says it is working toward establishing GHG inventory protocols and baseline measurements.	

Strategic Planning		***Score: 1***
Emissions Targets	None identified.	
	Frito-Lay has identified energy and water efficiency targets to reduce intensity per pound of water, fuels and electricity by 50%, 30% and 25%, respectively, when measured against a baseline established in 1999. Frito-Lay North America is a member of EPA's Climate Leaders program.	
GHG Emissions Trading	None identified.	
Green Power	See Emissions Accounting, above.	
Energy Efficiency	Frito-Lay and Tropicana operate cogeneration facilities that provide electricity and utilize the exhaust heat for process steam generation. The combination is much more fuel efficient than utility power plants, resulting in fewer total emissions. Frito-Lay is investigating various other process heat recovery technologies to further reduce fuel consumption and air emissions.	
Commercial Business	None identified.	

Unilever PLC

NYSE : ***UL***

Industry: ***Food production***

Unilever recognizes that climate change poses a threat to three key areas in its supply chain: agriculture, water and fisheries. It believes that a strategic response is possible by being well prepared in the nature of its portfolio and in its capability to adapt products and supply chains in a practical way. Its Corporate Responsibility Council oversees the company's environmental and sustainability policies and performance. Unilever sets one- and five-year targets for energy efficiency and GHG emissions in its manufacturing operations. In 1995–2004, it reduced its CO_2 emissions by 25% on a load per tonne basis, and is targeting an additional 10% reduction over the next five years. At present, Unilever is placing particular emphasis on use of refrigeration equipment that reduce or eliminate the use of coolants that contribute to global warming and ozone depletion. It makes a life cycle assessment of the GHG emissions from its products.

Summary Score: 49

Company Information	
	Unilever is a global consumer goods company that produces foods and home and personal products, with 365 manufacturing sites on six continents. Its well-known consumer goods brands include Hellman's, Lipton, Knorr, Dove, Pond's and Vaseline. It had sales of $54.4 billion in 2004.
Contact Information	
CEO / Chairman	Patrick Cescau/Antony Burgmans
Contact	Tel: 44.020.7822.52 • Web: www.unilever.com
Address	Unilever House Blackfriars PO Box 68 Blackfriars, London EC4P4BQ Netherlands
Board Oversight	***Score: 6***
Board Committee	Corporate Responsibility Council.
Committee Chair	Ralph Kugler, President of Home and Personal Care, and an executive director.
Actions Taken	Approved environmental strategy and policies, including those relating to climate change.
Management Execution	***Score: 8***
CEO Statement	*From 2004 Environmental Report:* "[W]e understand that our long-term success as a business is intimately linked with the vitality of the environment and the communities in which we operate. Increasingly governments, international agencies,NGOs and individual concerned citizens are calling for wider engagement by companies in tackling the environmental and social challenges we all face. Through a clear framework and explicit company-wide commitments, we play our part in addressing global challenges…. We have reduced [GHG] emissions per tonne of production from our factories by 25% and unit waste loads by 60% over the ten-year period."
Chief Environmental Officer	See Kugler, above.
Climate Change Executive	See Corporate Responsibility Council, below.
Executive Committee	Corporate Responsibility Council (CRC) This newly formed group has replaced the previous strategic management group for the environment (Unilever Environment Group). The CRC has strategic responsibilities for the environment, including climate change. The CEO and Unilever Executive approve environmental strategy and policies, with operational responsibility held within the business regions and categories. Day-to-day responsibility for policy implementation and environmental management rests with operating companies in each country.
Link to Executive Compensation	None identified.

Unilever PLC

NYSE : ***UL***
Industry: ***Food production***

Public Disclosure

Score: 8

Company Statement

From 2005 response to Carbon Disclosure Project:

"Unilever took the decision some time ago that in order to implement its policy commitment to continuous improvement in the management of its environmental impacts, it would establish a plan to reduce our CO_2 impact. This was done as a world-wide programme: measuring energy use and carbon emissions from our manufacturing operations and setting annual reduction targets. This process has been in place world-wide since 1997 and the aggregated data and targets are published annually.

"Life cycle assessment studies show that our manufacturing operations are not particularly energy intensive and that the majority of the GHG emissions associated with our products occur in our supply chains and often during the consumer's use of our products. Therefore not only are we committed to reducing our own GHG emissions in such areas as manufacturing and refrigeration, we also are committed to working across the life cycle of our products. For example we encourage the efforts of industry bodies to promote energy efficiency within the home and we endeavour to develop products for consumers that help them reduce their energy consumption."

The statement goes on to say, among other things, that one of the risks of climate change is "increased fluctuations in climatic conditions, and the probability of bigger events that can become natural disasters such as floods and long-term drought." In addition, it says, structural changes in climate patterns could significantly impact its supply chains. "Over 2/3rds of our raw materials come from agriculture, forestry and plantations, and we also have a substantial frozen fish business," Unilever says. "Ocean current changes can disrupt fish stock levels and long term terrestrial changes could change the growing conditions for crops, particularly through the availability of fresh water."

Securities Filings Statement

None identified

Unilever discusses emissions targets and recent performance in the front section of its 2004 annual report.

Company Report

Environmental Report 2004

GRI Report

See above.

Carbon Disclosure Project

Answered questionnaire, permitted disclosure.

Emissions Accounting

Score: 15

Savings Calculated by Company

Amount: 1,380,000 tonne reduction in annual CO_2e emissions ***Scope:*** Entity level
Time frame: 1995–2004

Unilever reduced CO_2e emissions from manufacturing by 30% on a total production basis. Much of its GHG reduction efforts are in the area of refrigeration. Its ice cream and frozen foods factories use ammonia for industrial-scale refrigeration, which has no ozone depletion potential and negligible effect on global warming. In 2000, it announced a commitment that new purchases of ice cream cabinets from 2005 would use hydrocarbon refrigerants where it is commercially viable and legally permitted. Introduction of these hydrocarbon cabinets as a replacement for HFCs will significantly reduce Unilever's ice cream freezers impact on global warming. By 2006, it will have about 100,000 hydrocarbon refrigerated ice cream freezers on the market in Europe. Rollout in Latin America will start in 2006 with about 10,000 freezers in total in Brazil and Mexico. Rollout in Asia is planned for 2006/2007. Unilever also is involved in the 'Refrigerants, Naturally!' initiative together with Coca-Cola, McDonald's, UNEP and Greenpeace to promote the use of HFC-free refrigerants in point of sale equipment like bottle chillers and freezers.

In 2004, Ben & Jerry's and Unilever Research completed a two-year contract to fund the further development of research on Thermoacoustic Refrigeration (TAR). TAR is an alternative refrigeration technology that utilizes sound waves to create cooling. An operational prototype ice cream cabinet has been successfully built and demonstrated under typical field conditions. Intellectual properties rights for TAR have been sold by Penn State to the newly founded Thermoacoustics Corporation (TAC) and additional venture capital funding has been secured to continue research into a commercial application of the technology. Ben & Jerry's has been in preliminary discussions with TAC about the possibility of developing beta units of TAR ice cream cabinets for field testing at limited locations in 2005/2006.

Unilever PLC

NYSE : ***UL***
Industry: ***Food production***

Emissions Accounting

(continued)

GHG Emissions Inventory

2004 Amount: 3,575,389 tonnes of CO_2e ***Region:*** Global
2000 Amount: 4,600,000 tonnes of CO_2e ***Region:*** Global

Unilever took its first annual inventory of GHG emissions in 1997. About 94% of its CO_2e emissions are related to energy use at its facilities. In 2004, about 45% of its emissions were in countries subject to emissions limits under the Kyoto Protocol, and 55% of these emissions were from indirect sources.

2004 Amount: 186 kilograms of CO_2 per tonne of production ***Region:*** Global (intensity rate)
2000 Amount: 198 kilograms of CO_2 per tonne of production ***Region:*** Global (intensity rate)

Carbon Footprint

Unilever assess its carbon footprint in a number of ways. At a strategic level it has conducted an annualized life cycle assessment of its global business and products that included a global warming assessment. In its routine operations it conducts life cycle assessments (including GHG emissions) on its products and these take into account supply chain, product manufacturing, transport/distribution, and consumer use and disposal. In addition energy and GHG emissions are key indicators for its sustainable agriculture initiative applied to its key crops. Unilever also encourages the efforts of industry bodies to promote energy efficiency, within its industry and by consumers.

Third Party Vertification

Yes. GHG emissions and targets are audited as part of its annual report.

Reporting Protocol

None identified.

Strategic Planning

Score: 12

Emissions Targets

Baseline year: 2004 ***Target year:*** 2009 ***Region:*** Global (intensity rate)
Amount: 10% decrease in CO_2 per tonne of production (169 kilograms/tonne by 2009)

Unilever sets targets annually, with a one- and five-year time horizon. Unilever Foods North America is a member of EPA's Climate Leaders program.

GHG Emissions Trading

Voluntary programs—Unilever says that the financial benefits of carbon trading currently are small or non-existent. It will continue to monitor developments and participate where opportunities arise on a country-by-country basis. It says a significant barrier to carbon trading is the relatively high cost of registering and selling reductions, compared to the relatively low levels of CO_2 emitted from its individual sites. In the U.K., Unilever Foods participates in the U.K. Emissions Trading Scheme. It has cut CO2 emissions by 14,861 tonnes by installing energy efficient equipment and reducing leaks of compressed air and steam, allowing the company to sell allowances to other companies.

Government programs—Unilever has a small number of sites in Europe that will be directly impacted by the E.U. Emissions Trading Scheme, but it says that even in the worse case scenario (i.e., no emission reductions contrary to its internal reduction targets) the total cost liabilities are relatively small.

Green Power

About 17% of the energy used at Unilver sites comes from renewable sources, of which about 11% comes from its own site initiatives, while the remaining 6% is purchased through utility grids. Site initiatives include the use of wood from managed plantations, waste crops and sugarcane fiber. In 2004, 18 sites used wood from sustainable sources for all or part of their energy requirements, and several others used manufacturing waste to supplement boiler fuel. In addition, seven sites generated hydro-electricity or used wind power onsite. Unilever has run field trials on five solar power assisted freezer cabinets. Unilever uses such initiatives as Total Productive Maintenance, improved energy management and some factory integration to reduce GHG emissions and energy usage.

Energy Efficiency

Unilever sets one- and five-year performance targets to improve energy efficiency. Its current five-year target is to reduce energy use per tonne of production by nearly 10% in 2004–2009. In 2004, Unilever's unit energy load remained constant but achieved a 6.9% reduction in absolute energy use, partly due to energy efficiency programs in three regions (North America, Africa and Europe).

Commercial Business

In May 2005, the U.S. EPA awarded Unilever, Coca-Cola and McDonald's the EPA's Climate Protection Award for their joint efforts in promoting the development of environmentally friendly refrigeration technology. (See Emissions Savings for more on refrigeration initiatives.)

Corporate Governance Profiles

Airlines

Air France-KLM Group

NYSE: ***AFK***
Industry: ***Airlines***

Air France-KLM says it has made "sustainable business" an integral part of its operations and that it is seeking to reduce its "large and very visible ecological footprint." Since 1997, the company has invested 10 billion euros to acquire state-of-the-art aircraft that are quieter and more fuel efficient. While the airline has reduced CO_2 emissions per passenger-kilometer substantially, overall CO_2 emissions have increased because of growth in passenger and cargo traffic. The company says the potential for further reductions in CO_2 emissions is limited by technology available to the airline industry. In addition to fleet renewals, the airline is focused on rationalized networks, efficient maintenance and flight operations, and GHG emissions trading in Europe.

Summary Score: 23

Company Information

Air France-KLM Group is the world's largest passenger airline and second largest freight carrier, in terms of revenue. It serves approximately 225 destinations worldwide with a fleet of about 550 aircraft. The company had sales of $24.7 billion in the 2005 fiscal year.

Contact Information

CEO / Chairman	Jean-Cyril Spinetta
Contact	Tel: 330141567800 • Web: www.airfrance.com
Address	45 Rue de Paris Paris, 95747, France/Netherlands

Board Oversight

Score: 1

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 2

CEO Statement — *At the 2005 Environmental Summit of the International Aviation Transportation Association:*

"[W]e can safely say that we [airlines] are responsible for 2.5% of the total human climate change effect excluding radiative effects and around 3.5% otherwise [and expected to increase to 5% by 2050].... First and especially in Europe, we [at Air France-KLM] have heavily invested—and continue to do so—to operate in the most fuel-efficient conditions. Since 1997, Air France has invested 10 billion euros to acquire state-of-the-art aircraft in terms of fuel-efficiency and noise energy...."

Chief Environmental Officer	None identified.
Levels to CEO	Not determined.
Climate Change Executive	None identified.
Executive Committee	None identified. The Strategic Management Committee, consisting of eight company representatives and the Air France chairman, meets every two weeks to define group strategy, including network and hub coordination, budget and medium-term planning, fleet and investment strategy, and other priorities.
Link to Executive Compensation	None identified

Public Disclosure

Score: 6

Company Statement — *From company website:*

"Air France and KLM are limiting greenhouse gas emissions thanks to fleet renewal, rationalized networks, and efficient maintenance and flight operations. However, the remaining potential gain in efficiency is limited. Moreover, demand for air transport capacity in the coming years is likely to continue to grow. For its part, Air France-KLM Group actively contributes to the international debate on climate change in order to identify the most environmentally efficient and cost-effective methods."

Air France-KLM Group

NYSE: ***AFK***
Industry: ***Airlines***

Public Disclosure	*(continued)*
Securities Filings Statement	None identified.
Company Report	***Sustainabilty Report 2004–05***
GRI Report	See above.
Carbon Disclosure Project	Not queried.

Emissions Accounting	***Score: 11***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	***2004 Amount:*** 24,147,000 tonnes of CO_2 ***Region:*** Global ***1996 Amount:*** 16,660,000 tonnes of CO_2 ***Region:*** Global Air France-KLM Group's CO_2 emissions from its combined fleet increased approximately 31% between the 1997–2005 fiscal years, ending March 31. Over the same period, the airline's combined passenger traffic (in kilometers) grew 53% and cargo traffic grew 17%. On this basis, energy efficiency increased 10% over the period.
Third Party Vertification	No
Reporting Protocol	None identified.

Strategic Planning	***Score: 3***
Emissions Targets	None identified.
GHG Emissions Trading	None identified. Chairman Spinetta made the following observations at the 2005 Environmental Summit of the International Aviation Transportation Association: "Lots of airlines—especially in Europe—are ready to examine the implementation of an Emissions Trading Scheme. Many of us trust that emissions trading could enable [GHG] reduction targets to be achieved in the most cost-effective manner, as recommended by ICAO. Such a scheme limits the overall amount of man-made emissions, but allows individual sources to trade 'emissions permits' so that those who emit more can buy permits to do so from sources that are able to emit less.... With an emissions trading scheme, you can determine in advance the environmental benefits, but the tricky part is not knowing the cost up front. The permits may be cheap or expensive depending on market conditions. That is why I insist on the importance of defining guidelines in a way that would minimize cost impact, while satisfying [GHG] reduction requirements."
Green Power	The company promotes "clean energy equipment" when "relevant and technically feasible."
Energy Efficiency	Air France-KLM estimates that the energy efficiency of its aircraft has increased 10% between fiscal 1997–2005, mainly through aircraft renewals. The average age of its aircraft was 9.4 years as of March 31, 2005.
Commercial Business	None identified

AMR Corp.

NYSE: ***AMR***
Industry: ***Airlines***

AMR has not addressed climate change as a governance issue. It addresses environmental matters as part of an environmental, safety and security function within the company.

Summary Score: 9

Company Information

AMR is the parent company of American Airlines, the largest scheduled passenger airline in the world. It serves approximately 150 destinations throughout North America, the Caribbean, Latin America, Europe and the Pacific. American also is one of the largest scheduled freight carriers in the world. It had sales of $18.6 billion in 2004.

Contact Information

CEO / Chairman	Gerard J. Arpey
Contact	Tel: 817-963-1234 • Web: www.aa.com
Address	4333 Amon Carter Blvd Fort Worth, TX 76155-2605 USA

Board Oversight

Score: 0

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 2

CEO Statement	None identified.
Chief Environmental Officer	Peggy Sterling, Vice President—Safety, Security and Environmental, American Airlines Senior Management
Levels to CEO	0
Climate Change Executive	James Walsh, Managing Director, Corporate Environmental
Executive Committee	None identified. Reports on environmental matters to senior executives and the CEO through established internal policies and procedures. In addition, American Airlines is an active partner in the International Civil Aviation Organization (ICAO), a United Nations technical group for aviation issues, working to develop sustainable environmental practices on an industrywide and global basis. The ICAO develops programs designed to increase fuel efficiency and reduce the emissions of all pollutants, including greenhouse gases. American says it is exploring opportunities for GHG emission reduction through active participation in programs such as those developed by ICAO.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 2

Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	*Environmental Leadership and Stewardship in a Changing World (2001).*
GRI Report	None identified.
Carbon Disclosure Project	Not queried.

AMR Corp.

NYSE: ***AMR***
Industry: ***Airlines***

Emissions Accounting	***Score: 0***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified.

Strategic Planning	***Score: 5***
Emissions Targets	None identified on GHG emissions. As a member of the International Air Transport Association (IATA), American plans to achieve at least a 10% improvement in fuel efficiency between 2000 and 2010.
GHG Emissions Trading	American says it is evaluating GHG emission reduction proposals and programs as part of its ongoing environmental stewardship efforts.
Green Power	AMR received the "Breath of Life Award" from the American Lung Association for its pioneering efforts in reducing emissions at airports by introducing solar and electric-powered ground service equipment. The company says it is committed to purchasing cleaner energy technology to reduce emissions, including the purchase of Zero Emission Vehicles ("ZEVs") to replace existing gasoline and diesel burning vehicles and fuel cells in select locations.
Energy Efficiency	AMR describes efforts to conserve energy in its 2001 GRI report. One initiative is the installation of fuel-flow meters that help the company operate machines more efficiently.
Commercial Business	None identified.

British Airways

NYSE: ***BAB***
Industry: ***Airlines***

British Airways identified global climate change as one of its key corporate responsibility issues in early 2005. Its aircraft have achieved a 27% improvement in fuel efficiency since 1990. Its land-based operations have achieved a 20% decrease in CO_2 emissions in the United Kingdom. British Airways believes more research is needed into the warming effects of aircraft CO_2 emissions in the upper atmosphere before it makes decisions on how to best address the issue. It actively supports GHG emissions trading and participates in the U.K. Emissions Trading Scheme. *The company declined to comment on this profile.*

Summary Score: 27

Company Information

British Airways is Europe's second largest air carrier that provides international and domestic scheduled passenger airline and cargo services. In fiscal year 2005, British Airways carried more than 35 million passengers to 149 destinations in 72 countries. It had sales of $14.8 billon in fiscal 2005.

Contact Information

CEO / President	Willie Walsh
Contact	Tel: 44-08708509850 • Web: www.britishairways.com
Address	Waterside, Harmondsworth London UB7 0GB, United Kingdom

Board Oversight

Score: 0

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 9

CEO Statement

Rod Eddington (British Airways CEO until October 2005) at the 2005 Geneva Aviation and the Environment Conference:

"When it comes to practical steps to tackle climate change, many European policymakers share business concerns that we will be put at a commercial disadvantage… In practical terms, this means that the focus in the short-term must be on steps to limit carbon dioxide emissions, while research continues into the more complex effects in the upper atmosphere, which are still very uncertain….

"Second, we must continue—and if possible accelerate—the drive towards fuel efficiency improvement through advances in engine and airframe design. With the price of fuel currently three times the level experienced in the 1990s, there are good economic as well as environmental reasons for doing this. We cannot always accept that fuel efficiency compromises will be made to achieve noise reductions, as happened in the design of the A380. A well-informed balance must be struck which meets the need of all stakeholders.

"Third, airports and air traffic management systems can play a part in helping to promote fuel efficient practices: shorter routings, less stacking, and wider use of fuel efficient practices such as Continuous Descent Approaches.

"According to the 1999 report from the Intergovernmental Panel on Climate Change, improvements in air traffic management can cut fuel burn and associated emissions by up to 12%. Most air traffic management systems are still government-controlled. Governments around the world need to recognize the part that they must play in delivering environmental improvement through better infrastructure.

"However, these measures may still not be enough to prevent aviation being a growing source of carbon dioxide emissions… In my view, the right approach is emissions trading… While there are some risks attached, these pale into insignificance when we consider the alternatives, which are generally based on punitive taxes and charges… An aviation fuel tax would be a blunt and ineffective instrument and we must strongly resist it, on both environmental and economic grounds"

Chief Environmental Officer	None identified.
Levels to CEO	Not determined.
Climate Change Executive	None identified.

British Airways

NYSE: ***BAB***
Industry: ***Airlines***

Management Execution	*(continued)*
Executive Committee	Corporate Responsibility Board British Airways established its Corporate Responsibility Board in 2003, under the chairmanship of its General Counsel, Robert Webb. The board is composed of senior managers responsible for such issues as health, safety, environmental, security, corporate governance, and risk management. The group met four times in 2004/2005. In early 2005, it took on three key issues of focus: climate change, diversity and community relations around Heathrow Airport.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 7***
Company Statement	*From company website:* "Climate change is an important environmental issue for the aviation industry. We are committed to addressing it, in an efficient and effective way. "In the short-term, British Airways is committed to increasing the fuel efficiency of our aircraft and buildings. We are targeting a 30% improvement in our aircraft fuel efficiency between 1990 and 2010 and a 2% per annum reduction in energy consumption in our buildings. "Over the long-term, we support the incorporation of aviation into an international system of emissions trading for greenhouse gases. We already participate voluntarily in the U.K. Emissions Trading Scheme and support the inclusion of aviation into EU emissions trading from 2008. "More scientific research is needed into the non-carbon dioxide (CO_2) global warming effects of aircraft in the upper atmosphere before we can decide the best way of addressing these."
Securities Filings Statement	*Excerpt from Form 20-F:* "The Group is playing an active role in development of the understanding of the effects of aircraft emissions to the atmosphere. This has included involvement in the work of the Intergovernmental Panel on Climate Change, co-operating with research programs and promoting discussion of possible ways in which to control emissions of greenhouse gases. The Group is involved in work within ICAO aimed at developing mechanisms to control and mitigate the effect of aircraft engine exhaust emissions. BA is also a member of the UK emissions trading scheme and supports the inclusion of aviation in the EU emissions trading scheme."
Company Report	*British Airways 2004/2005 Corporate Responsibility Report*
GRI Report	None.
Carbon Disclosure Project	Not queried.

Emissions Accounting	***Score: 5***
Savings Calculated by Company	***Amount:*** 27.4% improvement in aircraft fuel efficiency ***Scope:*** Project-level ***Time frame:*** 1990–2004/5
GHG Emissions Inventory	***2004 Amount:*** 127,922 tonnes of CO_2 ***Region:*** Global ***1998–2000 avg.:*** 159,262 tonnes of CO_2
Third Party Vertification	No.
Reporting Protocol	None identified.

British Airways

NYSE: ***BAB***
Industry: ***Airlines***

Strategic Planning	***Score: 6***
Emissions Targets	***Baseline year:*** 1990 ***Target year:*** 2010 ***Region:*** Global (intensity rate) ***Amount:*** 30% increase in aircraft fuel efficiency British Airways achieved 27.4% improvement in aircraft fuel efficiency by 2004/2005. If the 2010 goal is achieved, the company says it will set a new goal for the next 20-year period.
GHG Emissions Trading	***Voluntary programs***--British Airways publicly endorses emissions trading, calling it "the most economically efficient and environmentally effective mechanism for dealing with the growth of aviation greenhouse gas emissions." It participates in the U.K. Emissions Trading Scheme and achieved a 23% reduction in its contribution to the U.K. CO_2 inventory in 2004, compared with its 1998-2000 baseline. ***Government programs***—British Airways supports the inclusion of the aviation industry in the E.U. Emissions Trading Scheme in 2008.
Green Power	None identified.
Energy Efficiency	British Airways has achieved 27.4% aircraft fuel efficiency between fiscal 1990–2004/2005. The average age of its 290 aircraft is 8.5 years.
Commercial Business	None identified.

FedEx Corp.

NYSE: ***FDX***
Industry: ***Airlines—freight***

FedEx's environmental policy includes a focus on minimizing atmospheric emissions. It conducted its first company-wide GHG emissions inventory in 2005 and plans to announce its results in 2006. FedEx's emission reduction programs include developing and operating diesel electric hybrid delivery vehicles, packaging improvements, retirement of less fuel-efficient aircraft and enhanced customer service (through FedEx Kinko's). FedEx Express, the world's largest express transportation company, is working with Environmental Defense on a new generation of pickup-and-delivery trucks and with General Motors on a fuel cell pickup-and-delivery vehicle.

Summary Score: 18

Company Information

FedEx Corp. provides customers and businesses worldwide with a broad portfolio of transportation, e-commerce and business services. It is one of the world's largest airlines, with more than 675 aircraft in service, and operates a large ground fleet of 43,000 motor vehicles. FedEx acquired Kinko's Office and Print Center in 2004. FedEx had sales of $29.4 billion in fiscal 2005.

Contact Information

CEO	Jeroen van der Veer
Chairman (non executive)	Frederick W. Smith
Address	942 S Shady Grove Rd Memphis, TN 38120-4117 USA
Contact	Tel: 901-434-8464 • Web: www.fedex.com

Board Oversight

Score: 0

Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 3

CEO Statement	None identified. In FedEx's 2004 and 2005 annual reports, Chairman Smith addresses energy efficiency in the company's vehicles, aircrafts and operations and its launch of hybrid-engine delivery vehicles. He also discusses Kinko's renewable energy purchases and installation of a solar-electric system.
Chief Environmental Officer	D. Mitchell Jackson, Managing Director, Corporate & International Environmental Programs, FedEx Express
Levels to CEO	3
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure

Score: 3

Company Statement	*From company website:* "FedEx Corporation and its subsidiaries recognize that effective environmental management is one of its most important corporate priorities. We are committed to protecting and respecting the environment through outstanding environmental performance and efficiency in the conduct of its operations. As part of our ongoing efforts to attain this objective, FedEx will focus on the following initiatives: "....Use of innovations and technologies to minimize atmospheric emissions and noise."
Securities Filings Statement	None identified.
Company Report	*FedEx Kinko's 2003 Sustainability Report.*
GRI Report	None identified.
Carbon Disclosure Project	Answered questionnaire, but denied disclosure in 2005. It permitted disclosure in 2004 and denied disclosure in 2003.

FedEx Corp.

NYSE: ***FDX***
Industry: ***Airlines—freight***

Emissions Accounting		***Score: 6***
Savings Calculated by Company	***Amount:*** 884,000 tons of CO_2 ***Scope:*** Project level ***Time frame:*** 2002 Using EPA's SmartWay Transport calculator tool, FedEx calculated these savings through the use of operational and technological innovations within its ground-based operations. FedEx planned to update these calculations for 2005. FedEx also estimates that the switch from the FedEx Express Letter to its replacement, the FedEx Envelope, in 1999 has resulted in a 12% reduction in GHG emissions from its production. In addition, the retirement of Boeing 727 aircraft is reducing GHG emissions due to greater fuel efficiencies of new aircraft.
GHG Emissions Inventory	In 2005, FedEx conducted its first company-wide GHG emissions inventory, using 2004 as its baseline. The inventory encompasses both FedEx's facilities and transportation fleet worldwide. FedEx plans to announce the results of the inventory in early 2006.
Third Party Vertification	Yes. (Hybrid electric vehicles only.) The Climate Neutral Network has certified the carbon offsets from FedEx hybrid electric trucks as Climate CoolTM offset credits.
Reporting Protocol	GHG Protocol

Strategic Planning		***Score: 6***
Emissions Targets	None identified.
GHG Emissions Trading	None identified. FedEx says it is "monitoring current trends in this area."
Green Power	As of October 2005, FedEx Kinko's purchased 11% of it total electricity needs from renewable sources, amounting to 29,000 MWh and making FedEx Kinko's the 24th largest renewable energy purchaser in U.S. The U.S. Environmental Protection Agency and the U.S. Department of Energy have repeatedly recognized FedEx Kinko's for its leadership in renewable energy purchases. In August 2005, FedEx Express began operation of California's largest corporate solar electric system atop its hub at Oakland International Airport. The 904-kilowatt solar array will provide approximately 80% of the peak load demand for the company's Oakland facility, and will add nearly 1 megawatt of electric generating capacity to the city of Oakland. In 2005, EPA's Green Power Partnership gave FedEx Express an on-site generation award for the project.
Energy Efficiency	FedEx says it is committed to efficiency in the conduct of its operations, including maximizing air and truck route efficiencies. FedEx is a partner of the EPA SmartWay Transport Partnership, which is a voluntary partnership between various freight industry sectors and EPA that establishes incentives for fuel efficiency improvements and GHG reductions. FedEx announced plans in early 2005 to add up to 75 hybrid diesel-electric trucks over the next year, in addition to the 18 it already had in service.
Commercial Business	FedEx Express is working with Environmental Defense to develop a new generation of pickup-and-delivery trucks. A 2004 GEMI report, Clear Advantage: Building Shareholder Value, highlighted FedEx's agreement to purchase 20 hybrid delivery trucks, noting that "the scale of FedEx Express' commitment is likely to transform the economics of hybrid commercial vehicles." In 2005, CALSTART—the California operating division of WestStart-CALSTART, an advanced transportation technologies consortium—awarded FedEx Express and Environmental Defense the Blue Sky Award for "their nearly single-handed placement of commercial hybrid trucks on the map for corporate America."

Southwest Airlines

NYSE: ***LUV***

Industry: ***Airlines***

Southwest Airlines has not addressed climate change as a governance issue, other than to acknowledge that aircraft emissions may have "global climatic" effects.
The company declined to comment on this profile.

Summary Score: 6

Company Information	
	Southwest Airlines is the largest domestic passenger airline in the United States, based on originating passengers and scheduled departures. It serves approximately 60 U.S. destinations with about 420 aircraft. It uses a single aircraft type (Boeing 737), employs an efficient, high-utilization, point-to-point route structure, and hedges jet fuel prices to help maintain a low-cost structure. It had sales of $6.5 billion in 2004.
Contact Information	
CEO / Chairman	Gary C. Kelly / Herbert D. Kelleher
Contact	Tel: 214-792-4000 • Web: www.southwest.com
Address	PO Box 36611 Dallas, TX 75235-1611 USA
Board Oversight	***Score: 0***
Board Committee	None identified.
Actions Taken	None identified on climate change or GHG controls.
Management Execution	***Score: 1***
CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	None identified. (See company statement below.)
Executive Committee	None identified.
Link to Executive Compensation	None identified.
Public Disclosure	***Score: 2***
Company Statement	*From company website:* "Although Southwest does not operate outside the U.S., we realize that emissions from aircraft at cruise altitude may have global climatic and/or stratospheric effects. Accordingly, Southwest participates in federal climate change activities and assessments relating to the airline industry, and we provide input through the Air Transport Association of America (ATA) and Federal Aviation Administration to the ICAO committees and working groups assessing the climate change impacts of aviation."
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Not queried.
Emissions Accounting	***Score: 0***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified.
Strategic Planning	***Score: 3***
Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	Southwest is involved in efforts to make air traffic procedures and aircraft technologies more fuel efficient. It is converting to electric power technologies and cleaner-burning fuels at various locations to reduce emissions. Southwest also has a fuel-hedging program to manage its jet fuel costs.
Commercial Business	None identified.

UAL Corp.

NASDAQ : ***UAUA***

Industry: ***Airlines***

UAL has not addressed climate change as a governance issue. *The company declined to comment on this profile.*

Summary Score: 3

Company Information	
	UAL is the parent company of United Airlines and one of the largest scheduled passenger airlines in the world. It serves approximately 120 destinations in 26 countries. It had sales of $12.5 billion in 2004.

Contact Information	
CEO / Chairman	Glenn F. Tilton
Contact	Tel: 847-700-4000 • Web: www.ual.com
Address	PO Box 66919 Chicago, IL 60666 USA

Board Oversight	***Score: 2***
Board Committee	Public Responsibility Committee
Committee Chair	Dipak C. Jain, Dean, Kellogg School of Business, Northwestern University
Actions Taken	None identified on climate change or GHG controls.

Management Execution	***Score: 0***
CEO Statement	None identified.
Chief Environmental Officer	None identified.
Climate Change Executive	None identified.
Executive Committee	None identified.
Link to Executive Compensation	None identified.

Public Disclosure	***Score: 0***
Company Statement	None identified.
Securities Filings Statement	None identified.
Company Report	None identified.
GRI Report	None identified.
Carbon Disclosure Project	Not queried.

Emissions Accounting	***Score: 0***
Savings Calculated by Company	None identified.
GHG Emissions Inventory	None identified.

Strategic Planning	***Score: 1***
Emissions Targets	None identified.
GHG Emissions Trading	None identified.
Green Power	None identified.
Energy Efficiency	UAL has undertaken fuel efficiency measures to reduce operating costs.
Commercial Business	None identified.

United Parcel Service Inc.

NYSE: ***UPS***
Industry: ***Airlines***

UPS's emission reduction strategies are coordinated by a Corporate Environmental Affairs Group. Its near-term goal is to reduce emissions per package delivered; its long-term goal is to decrease total CO_2 emissions from its operations. Strategies include increasing the fuel efficiency of its aircraft and vehicles; maintaining a fleet of alternative fuel vehicles and deploying new fleet technologies; testing new technologies for its facilities; energy conservation; improving efficiency and reducing miles driven; and taking advantage of its integrated network and intermodal capabilities. UPS says that future reductions are dependent upon technologies provided by equipment manufacturers as well as the collaboration of business, government and non-governmental organizations in research and development.

Summary Score: 30

Company Information

United Parcel Service (UPS) is the world's largest package delivery company with service to more than 200 countries and territories. It is one of the world's top 10 airlines, with about 575 owned and chartered aircraft, and operates a large ground fleet of 88,000 vehicles. It had sales of $36.5 billion in 2004.

Contact Information

CEO / Chairman	Michael L. Eskew
Contact	Tel: 404-828-6511 • Web: www.shareholder.com/ups
Address	55 Glenlake Pkwy NE Atlanta, GA 30328-3498 USA

Board Oversight

Score: 3

Board Committee	Audit Committee.
Committee Chair	Carol Tome, Chief Financial Officer, The Home Depot. In addition, board member and Chief Operating Officer John Beystehner is UPS's Corporate Compliance Officer with responsibility for environmental issues and compliance.
Actions Taken	None identified on climate change or GHG controls.

Management Execution

Score: 4

CEO Statement	None identified.
Chief Environmental Officer	Mike Herr, Vice President of Environmental Affairs
Levels to CEO	3
Climate Change Executive	Mike Herr
Executive Committee	Corporate Environmental Affairs Group This group is staffed by seven program managers and a group manager. It tracks, calculates and reports GHG emissions by mode of transport and by stationary source, and reports the progress of initiatives that have had an impact on the reduction of GHG emissions.
Link to Executive Compensation	None identified

Public Disclosure

Score: 6

Company Statement	*From 2004 Sustainability Report:* "As fuel prices continue to rise, managing fuel consumption and [GHG] emissions is a business opportunity - one that can improve the bottom line, reduce our impact and our customers' impact on the environment and increase the long-term viability of our company… As new fuel efficient and alternative technologies become widely available and affordable, UPS's long-term goal is to decrease total CO_2 emissions produced by its operations. In the near term, its efforts are focused on reducing emissions per package."
Securities Filings Statement	None identified.
Company Report	*Operating in Unison: 2004 UPS Corporate Sustainability Report*
GRI Report	See above.
Carbon Disclosure Project	Answered questionnaire, permitted disclosure.

United Parcel Service Inc.

NYSE: ***UPS***
Industry: ***Airlines***

Emissions Accounting

Score: 10

Savings Calculated by Company

Amount saved: 12.7% reduction in CO_2 intensity rate ***Scope:*** Entity level (U.S.)
Time frame: 2002–2004

UPS reports that it reduced its CO_2 emissions per 1,000 packages delivered from 23.01 tonnes to 20.08 tonnes over the period. Expressed per $100,000 of revenue, the reduction was from 2.16 tonnes to 2.06 tonnes of CO_2.

GHG Emissions Inventory

2004 Amount: 6,690,000 tonnes of CO_2 ***Region:*** U.S.

1996 Amount: 6,600,000 tonnes of CO_2 ***Region:*** U.S.

UPS's inventory is comprised of stationary sources of energy (electricity, natural gas, propane and heating oil) and mobile sources of energy (gasoline, diesel, jet A, and compressed natural gas).

UPS also created a metric that allows its customers to approximate their emissions based on the use of UPS ground services in the U.S.

Third Party Vertification

No

Reporting Protocol

GHG Protocol

Strategic Planning

Score: 7

Emissions Targets

None identified.

UPS says that future reductions in GHG emissions are mainly dependent upon the technologies provided by equipment manufacturers.

GHG Emissions Trading

None identified.

UPS says it is assessing options and potential implications for its fleet with respect to the E.U. Emissions Trading Scheme.

Green Power

Biomass supplies 10% of the power at 14 California UPS facilities; UPS estimates this use of biomass will prevent the release of 2.4 million pounds of CO_2. UPS estimates that more than 405,00 pounds of CO_2 emissions have been avoided since it installed solar panels at its Palm Springs facility in July 2003. The company says it will continue to test new technologies for its facilities, including solar, wind and distributed power

Energy Efficiency

UPS fuel expenses equaled nearly 4% of its revenue in 2004. It has established a fuel efficiency goal for 2007 to decrease fuel consumption by one-tenth gallon of fuel per package delivered. Its new delivery trucks average 18 mpg, compared to 9 mpg for its older models. It is phasing out use of vehicles fueled by natural gas. UPS says that it is developing a total energy consumption goal, which will take advantage of its integrated network and intermodal capabilities. UPS is a charter partner of the EPA SmartWay Transport Partnership, which is a voluntary partnership between various freight industry sectors and EPA that establishes incentives for fuel efficiency improvements and GHG reductions. UPS also is installing "sleep" software on 11,000 computers through EPA's Energy Star program.

Commercial Business

UPS owns a large fleet of alternative fuel vehicles. It says it will experiment with and deploy new fleet technologies, such as hybrid electric vehicles and hydrogen fuel cell vehicles.

About The Author

Douglas G. Cogan is Deputy Director of the IRRC Social Issues Service, now a division of Institutional Shareholder Services. He is the author of several books on environmental and energy topics. His 1992 book, *The Greenhouse Gambit: Business and Investment Responses to Climate Change*, was one of the first to focus on the investment implications of global warming for major industry groups. In 2003, he wrote the first edition of *Corporate Governance and Climate Change: Making the Connection*. In 2004, he wrote an *Investor Guide to Climate Risk: Action Plan and Resource for Plan Sponsors, Fund Managers and Corporations*. In 2005, he wrote *Unexamined Risk: How Mutual Funds Vote on Climate Change Shareholder Resolutions*. Each of the reports written since 2003 were commissioned by Ceres. Mr. Cogan has also written extensively on fiduciary issues related to social investing and shareholder activism.

The Investor Responsibility Research Center has been a leading source of high quality, impartial research and consulting on corporate governance and social responsibility issues since 1972. In August 2005, Institutional Shareholder Services acquired IRRC's proxy voting, portfolio screening, benchmarking, and corporate services. Proceeds from the sale of these businesses have been used to establish the IRRC Institute for Corporate Responsibility. The IRRC Institute will continue to conduct in-depth research and analysis of contemporary issues affecting companies and shareholders worldwide.

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.

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