CARBON DISCLOSURE PROJECT

Carbon Disclosure Project Report 2008
S&P 500

On behalf of 385 investors with assets of $57 trillion

Report written for Carbon Disclosure Project by:

PRICEWATERHOUSECOOPERS

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Carbon Disclosure Project 2008

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CARBON DISCLOSURE PROJECT

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REDEPREV-Fundação Rede de Previdência **Brazil**

RREEF Investment GmbH **Germany**

Rei Super **Australia**

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RLAM **United Kingdom**

Robeco **Netherlands**

Rock Crest Capital LLC **U.S.**

Royal Bank of Canada **Canada**

SAM Group **Switzerland**

Sanlam Investment Management **South Africa**

Santa Fé Portfolios Ltda **Brazil**

Sauren Finanzdienstleistungen **Germany**

Savings & Loans Credit Union (S.A.) Limited. **Australia**

Schroders **United Kingdom**

Scotiabank **Canada**

Scottish Widows Investment Partnership **United Kingdom**

SEB Asset Management AG **Germany**

Second Swedish National Pension Fund (AP2) **Sweden**

Seligson & Co Fund Management Plc **Finland**

SERPROS Fundo Multipatrocinado **Brazil**

Service Employees International Union Benefit Funds **U.S.**

Seventh Swedish National Pension Fund (AP7) **Sweden**

SH Asset Management Inc. **South Korea**

Shinhan Bank **South Korea**

Shinkin Asset Management Co., Ltd **Japan**

Shinsei Bank **Japan**

Siemens KAG mbH **Germany**

Signet Capital Management Ltd **Switzerland**

Skandia Nordic Division **Sweden**

SNS Asset Management **Netherlands**

Société Générale **France**

Sompo Japan Insurance Inc. **Japan**

SPF Beheer bv **Netherlands**

Standard Chartered PLC **United Kingdom**

Standard Life Investments **United Kingdom**

State Street Corporation **U.S.**

Storebrand ASA **Norway**

Sumitomo Mitsui Financial Group **Japan**

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Sun Life Financial Inc. **Canada**

Superfund Asset Management GmbH **Germany**

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Swisscanto Holding AG **Switzerland**

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Teachers Insurance and Annuity Association – College Retirement Equities Fund (TIAA-CREF) **U.S.**

Telstra Super **Australia**

Tempis Capital Management **South Korea**

Terra fondsforvaltning ASA **Norway**

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The Local Government Pensions Insitution (LGPI)(keva) **Finland**

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The Shiga Bank, Ltd. **Japan**

The Standard Bank of South Africa Limited **South Africa**

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As a founding member and Global Sponsor of the Carbon Disclosure Project (CDP), Merrill Lynch is committed to supporting CDP's core mission of creating the most accurate database of corporate carbon emissions worldwide. I would like to thank all of CDP's 385 institutional investor signatories — representing a combined asset base of $57 trillion — for encouraging disclosure on this important issue.

In our capacity as Global Sponsor of CDP I am pleased to present the CDP6 S&P500 report, the most comprehensive compilation to date of the specific emissions, risk-assessments and strategies of 321 of the S&P 500 companies. This response rate of 64% of the total companies represents a significant increase over the 2007 rate of 56% and the 2006 rate of 47%.

This increase in response rate, specificity and precision of company responses clearly reflects the heightened degree of attention and concern being directed at the broad issue of climate change by the world's largest corporations. As leaders in public and private sectors alike seek to provide effective solutions to the daunting economic, technological and challenges posed by climate change, the analytics and data showcased in this report provide an objective foundation for sound public policy and prudent decision-making.

Sincerely,

Gregory J. Fleming

President and Chief Operating Officer

Merrill Lynch & Co., Inc.

Executive Summary

This year's Carbon Disclosure Project (CDP) U.S. report comes at a pivotal point in the race to address global climate change. While public policy, consumer concern, and stakeholder awareness have converged on the issue, the need for corporate America to actively confront the challenges a carbon-constrained global economy presents has never been more urgent.

Introduction

While this is the CDP's sixth cycle overall, it is only the third cycle in the United States, the first being CDP4 (2006), followed by CDP5 (2007). The improved level of disclosure in this year's responses to CDP — both in terms of quantity and quality — will enable institutional investors and other key stakeholders to better understand the climate change-related risks and opportunities faced by the Standard & Poor's 500 (S&P 500) companies.

CDP's 385 institutional investor signatories — representing a combined asset base of $57 trillion — have raised the bar on carbon disclosure by encouraging 321 (64%) of the S&P 500 companies to provide detailed responses to the CDP6 information request.[1] Compelled, in large part, by an appreciation for the importance, sophistication and focus of the CDP investor base — the responding companies have provided more candid and comprehensive responses than in previous CDP iterations. Increasingly, collaboration between CDP, CDP's signatory investors and the responding S&P 500 companies is enabling institutional investors to factor companies' actions in addressing climate change risks and opportunities into investment decisions.

The increasing quantity and quality of responses demonstrates that these U.S.-headquartered companies see value in both their actions on climate change and the reporting of their performance. Many of these companies are expecting that carbon will become monetized through cap and trade legislation, which further enforces the importance of robust and reliable information. The dynamic changes that an incipient carbon economy has ushered in for U.S. businesses are starting to look permanent.

1 This report summarizes the analysis of the 314 company responses received by the extended information request deadline of June 30, 2008.

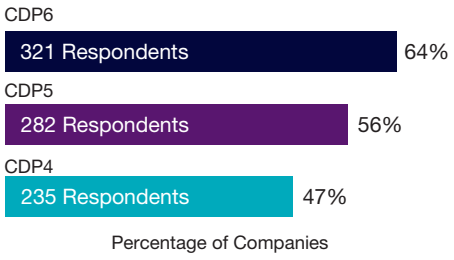
Most respondents continue to view energy management and emissions tracking and reporting as basic building blocks of long-term corporate sustainability.

Report Highlights

Response Rates and Disclosure Quality

- **The number of companies reporting to CDP is on the rise:** Of the 500 S&P companies invited to complete the CDP6 information request, 321 companies (64%) submitted their responses by the completion of this report, although seven of those were received too late for inclusion in the analysis. This represents a steady increase in participation over the three iterations of CDP's S&P 500 report from 47% in 2006. (See Figure 1).
- **More companies are disclosing actual greenhouse gas (GHG) emissions:** The upward trend in reporting GHG emissions continued. Most respondents continue to view energy management and emissions tracking and reporting as basic building blocks of long-term corporate sustainability (see Figure 2). The absolute number of S&P 500 respondents reporting actual GHG emissions figures rose to 228 (73%), versus 175 respondents in CDP5 (65%).
- **More companies are reporting Scope 3 (indirect) emissions:** Scope 3 emissions remain challenging to identify and track, as they cover a broad range of indirect emissions over which a company has influence. Despite this, 86 respondents (27%) reported some emissions across one or several Scope 3 categories (employee business travel; external distribution and logistics; use and disposal of a company's products; and supply chain), doubling the 43 respondents (15%), reporting Scope 3 emissions in CDP5, and almost five times greater than the 18 respondents (8%) reporting Scope 3 emissions in CDP4.
- **Companies in non-carbon-intensive industries are becoming more aggressive about accounting for and disclosing Scope 3 emissions:** The process of identifying and reporting on GHG emissions has helped companies in non-carbon-intensive industries recognize the importance of Scope 3 emissions. Responding companies from the Financial Services and Technology, Media, and Telecommunications sectors

Fig. 1: S&P 500 Responses over Time



pegged most of their Scope 3 emissions to employee business travel — one of the easiest of the Scope 3 categories to calculate, however in many cases not the most material.

- **Companies across industries are beginning to establish emissions target programs, with manufacturing companies leading the charge:** Overall 102 (32%) of CDP6 S&P 500 responding companies are developing emissions target programs. Of the 102 respondents noting emission reduction targets, 49 companies (48%) reported annualized goals of 2.5% or less per annum, 39 (38%) reported annualized goals of between 2.5% and 5% emissions reductions and 4 (4%) reported aggressive annualized emission reduction goals in excess of 5% per annum (see Figure 3). The remaining 10 (10%) reported having general GHG emissions reduction targets in place, but did not specify these targets. Given their historically heavy carbon footprints and extended global supply chains, manufacturing companies are often on the leading edge of carbon emissions management, tracking and reporting. This is the case when it comes to establishing emission reduction targets, with 38% of manufacturing respondents reporting such initiatives. Given that forthcoming regulation is widely anticipated (i.e. cap-and-trade), companies without emissions reduction targets need to consider these strategies with a degree of urgency.

Risk and Opportunity

- **Increasingly, companies are viewing climate change risk as an enterprise-wide risk:** Based on company responses, it is clear that more companies are viewing climate change risk not simply as an environmental or public relations issue, but as a game-changing set of business imperatives. In fact, 254 respondents (81%) viewed climate change as having

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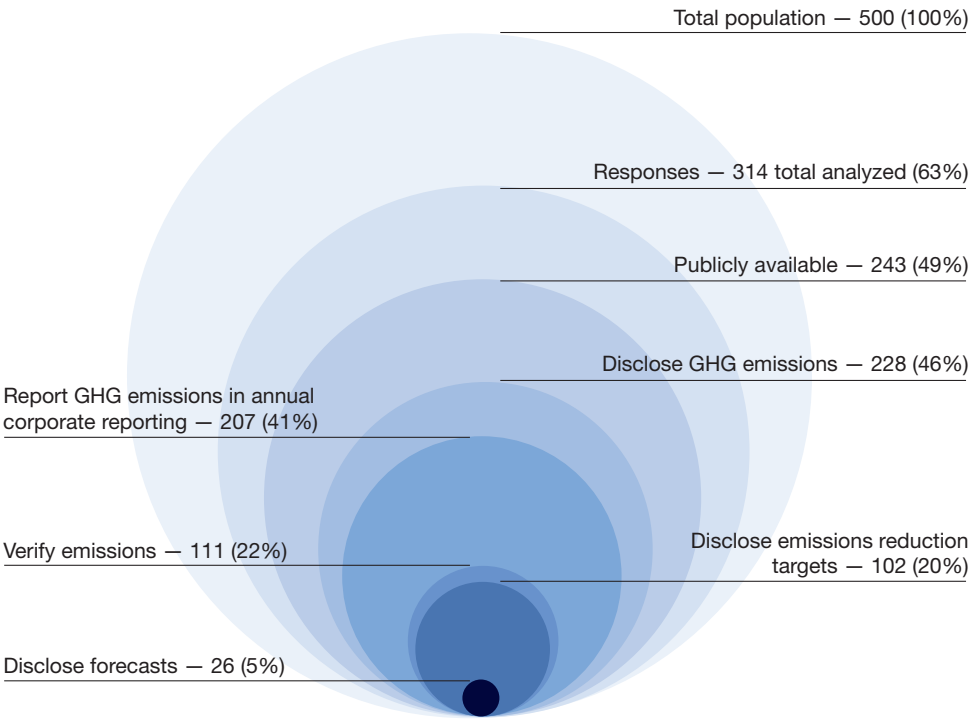
Fig. 2: Proportion of respondents, as percentage of S&P 500, at each disclosure level



Companies across industries report re-aligning product and service offerings to meet new standards of efficiency and say they are tracking the clean technology emerging in a carbon-constrained economy.

Forward thinking companies are recognizing that a strategy for addressing climate change should be embedded in their organizational DNA.

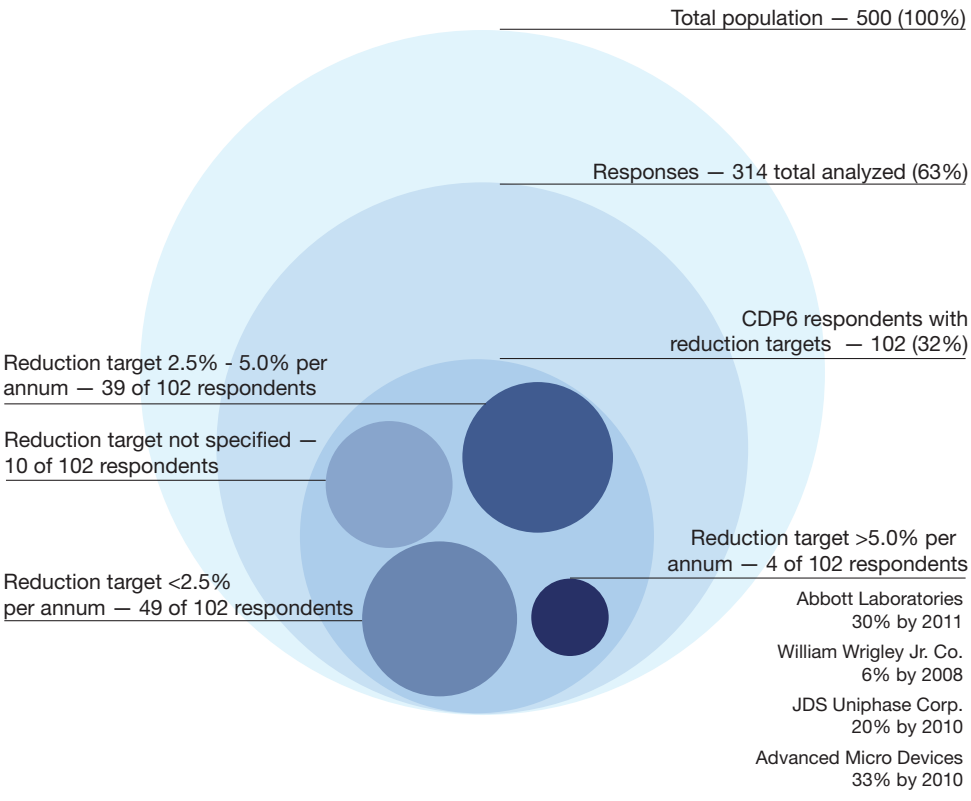
associated risks, and many cited specific examples. Climate change risks still tend to be broken down into more traditional risk categories — including physical, regulatory, and general risk — but they are definitely being factored into enterprise risk management (ERM) and corporate planning.

- **Companies are disclosing more "personalized" risks tied to climate change, in greater detail:** Respondents are moving away from disclosing the generic risks noted in previous responses (e.g., "potential risks from rising energy costs and sea levels and higher probability of storms") toward describing the "personalized" risks and opportunities that climate change and a carbon-constrained economy present. They are also highlighting risks and opportunities that are not always readily apparent, revealing great depth of thinking about the business impacts of climate change issues and carbon emissions.

For example, retailers such as **NIKE Inc.**, impacted by shifting consumer demands driven by changing weather patterns, are encountering challenges in stocking stores with the right clothes. Some industries, such as those in the Financial Services sector, reported indirect risks from their investments in other industries more directly exposed to climate change risk, such as manufacturing and energy.

- **Along with the risk associated with climate change, responding companies are increasingly seeing opportunity:** The percentage of CDP6 respondents pinpointing specific climate change risks (81%) was only slightly higher than the percentage of companies viewing climate change as a commercial opportunity: 71% (114 companies). Eyeing an emerging carbon-constrained economy, respondents in both the manufacturing industry and the construction and building products industry, in particular, see a myriad of associated opportunities.

Fig. 3: Carbon Emissions Reduction Programs (by Annualized Targets)



Companies across industries report re-aligning product and service offerings to meet new standards of efficiency and say they are tracking the clean technology emerging in a carbon-constrained economy, from sustainable bridge-building composites to computer networking systems that reduce employee travel.

Governance and Communication

- **Responding companies are implementing mechanisms for climate change governance:** As climate change emerges as a fundamental, bottom-line business issue, it comes as little surprise that 248 companies (79%) reported that climate change risks warrant leadership. This year, the number of companies reporting that they have a board or executive-level officer with overall responsibility for climate change management rose to 204 (65%), up from 141 (50%) of responding companies in CDP5. In some companies, responsibility for reducing carbon emissions is being incorporated into employee objectives. Ninety-four responding companies (30%) report some degree of linkage between employee incentives and goals related to climate change.
- **For investors seeking insights into how business performance will be affected by climate change, there is a fundamental need for reliable data:** CDP has created a robust environment for direct communication between companies and investors, within which such data can be exchanged. In fact, CDP has found examples of companies providing minimal climate-related information in their corporate sustainability reports; but disclosing via CDP so diligently, they have become eligible for inclusion in the Climate Disclosure Leadership Index (CDLI). To improve the ease of use for investors in analyzing the reported data, CDP has developed an upgraded version of its online database of corporate responses, available currently to CDP signatory investor members. Investors interested in becoming members and gaining access to this database should contact CDP directly.

Drivers for action

- **Consumer motivations:** For U.S. consumers, the push for action on climate change has sprung from pain felt at the gas pump throughout 2007 and 2008, and the specter of spiraling energy prices in the near future. The call for change from many public policy experts and academics, on the other hand, is grounded in widely accepted research linking human activity to rising global temperatures. Younger consumers — now known as the "Millennials"— are increasingly attuned to the risks presented by climate change and are calling for U.S. businesses to develop and produce more energy-efficient and sustainable products.
- **Public policy shifts:** Shining the spotlight on the issue even more brightly is the 2008 U.S. presidential election, the first in which climate change, rising carbon emissions, higher energy costs and energy security will be high priorities for both the Republican and Democratic candidates.
- **Enterprise risk and opportunity:** For the S&P 500 and corporate America in general, the risks derived from climate change and the challenges associated with operating in a carbon-constrained environment are at the core of doing business in today's increasingly connected and complex global economy. Forward thinking companies are recognizing that a strategy for addressing climate change should be embedded in their organizational DNA, as such an approach can drive significant cost savings and efficiency improvements, and help them manage critical resources necessary for long-term business sustainability. Companies are also seeing — and seeking to leverage — new-found opportunities in the carbon-constrained economy.

Future Challenges

While strides have been made in overall response rates and quality, there is room for improvement in closing the gap between respondents' awareness around GHG disclosure and real progress on reducing GHG emissions. Some challenges for both companies and stakeholders in the days ahead include:

- **Converting awareness to action:** Despite the fact that 254 companies (81% of respondents) said they viewed climate change as a risk, only 102 respondents (33%) reported that they have GHG emission reduction targets in place. For many companies, this gap between acknowledging the risks that climate change presents and the clear action of instituting targets remains to be closed.
- **Implementing emissions trading schemes in the U.S.:** GHG emissions trading is gaining traction in the U.S., however, it is still in nascent stages, and responses to emissions trading questions were understandably limited in detail. Many CDP6 respondents who reported that they trade emissions do so in the European Union Emissions Trading Scheme (EU ETS). Of all respondents, just 58 companies (18%) reported having facilities covered by the EU ETS. Starting in September 2008, U.S. utilities in selected Northeastern states will be required to participate in emissions trading, when the first series of quarterly carbon dioxide (CO_2) emission permit auctions are to be held in the U.S. under the Regional Greenhouse Gas Initiative (RGGI). It is anticipated that responses will be more comprehensive in future CDP iterations, as companies gain more experience participating in U.S.-based emissions trading schemes.

It is only through reporting that investors can begin to observe business performance under changing conditions.

Over the past eight years, stakeholder expectations have grown, and standards, methodologies, research and new thinking on climate change reporting have started to emerge more clearly.

- **Rewarding good emissions disclosure practices and emissions reduction progress:** While awareness-building and disclosure are positive steps, incentives and penalties for progress (or a lack thereof) must be clearly articulated by key stakeholders to encourage businesses to take advantage of climate change opportunities and to address climate change risks. The real "reward" for participation will come when CDP's 385 institutional investors increasingly make investment decisions that factor in climate change targets and governance as important investment criteria. Institutional investors should not only reward companies simply on enhanced disclosure, but on a combination of enhanced climate change disclosure, improved performance towards targets, and normal investment considerations.
- **Integrating long-term climate change impacts into current capital allocation and investment decisions:** Companies and investors must look to the long-term and factor climate change into their resource considerations. This is particularly true when the impacts are related to a changing physical climate or long-term shifts in consumer demand. For example, how do you begin to factor in the timing and impact of a one degree Celsius increase in temperature on the financial parameters of a project, or on demand for a particular product, when its impact on extreme weather events may not be linear? Although physical climate factors may be a part of the investment and capital analysis process, these impacts are difficult to integrate into a financial assessment of a project or valuation exercise. It is only through reporting that investors can begin to observe business performance under changing conditions.

Conclusion

Much has been achieved in the area of climate disclosure and carbon reporting since the launch of CDP in 2000. Over the past eight years, stakeholder expectations have grown, and standards, methodologies, research and new thinking on climate change reporting have started to emerge more clearly. State-level regulations of greenhouse gas (GHG) emissions — including CO_2 emissions — are being passed with rapid speed and could evolve into federal legislation during the next presidential administration. As investor expectations related to disclosure on corporate climate change initiatives and their results evolve, U.S. regulators may want to consider what, if any, changes should be made to encourage companies to disclose climate change-related considerations.

Over the past three years, increased participation in the CDP process and the improved quality of company responses indicate that S&P 500 companies are beginning to make the transition to a carbon-constrained economy. Still, the U.S., which contributes 25% of total global emissions, is a relatively late entrant in the race toward climate protection. As CDP6 responses reveal, the challenge to U.S. businesses looms large. Companies are now charged with converting increased awareness of climate change risks and opportunities into further enhanced disclosure and, ultimately, into actions to actually reduce emissions.

The CDP6 S&P 500 report is a companion report to other CDP6 reports assessing different markets — including among others the Financial Times Stock Exchange (FTSE) Global Equity Series Index 500 (Global 500) and the UK FTSE 350. For further information, please visit www.cdproject.net.

Contents

1

The Carbon Disclosure Project

CDP's mission is to facilitate a dialogue between investors and corporations, supported by high quality information from which a rational response to climate change will emerge.

Overview

The Carbon Disclosure Project is the largest investor coalition in the world: more than 385 signatory investors, with a combined asset base of $57 trillion, signed CDP's sixth annual request for information in 2008 (CDP6) which was sent to over 3000 companies worldwide.

The CDP annual information request is sent to the Chair of the Board of the world's largest companies by market capitalization. It covers four principal areas:

1) Management's views on the risks and opportunities that climate change presents to the business;

2) Greenhouse gas emissions accounting;

3) Management's strategy to reduce emissions/minimize risk and capitalize on opportunity; and

4) Corporate governance with regard to climate change.

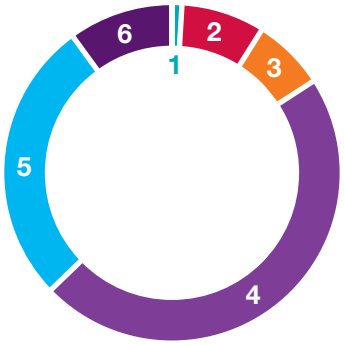
The CDP6 information request can be viewed in Appendix II.

The responses from companies to CDP's annual requests for corporate data provide investors with vital information regarding the current and prospective impact of climate change on their portfolios, and represent an important resource in relation to investment decisions. The fact that CDP's requests are made on behalf of investors serves to raise the awareness of senior management that climate change is a business issue that requires serious strategic focus.

After eight years of consecutive growth, CDP currently runs projects in more than 20 countries, with new projects launched in China, Korea, Latin America, the Netherlands and Spain in 2008. CDP has also entered into a key strategic relationship with Merrill Lynch and has appointed Pricewaterhouse-Coopers as its global advisor. These associations will support growth over the next three years.

CDP is pleased to report that it received a record number of company responses to its 2008 annual request — more than 1,550 in total. This demonstrates an increasing understanding by the world's largest

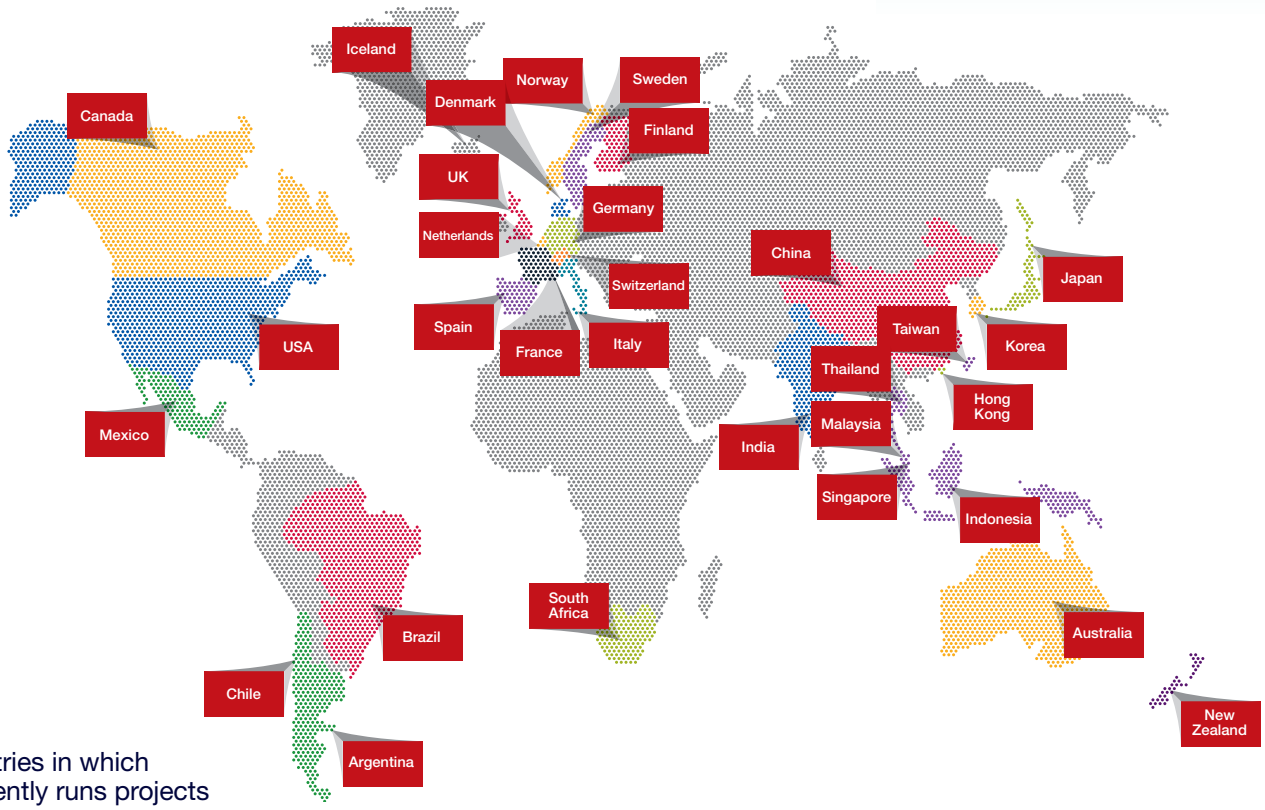
CDP6 Signatory Location by Region



1. Africa (1%)
2. Asia (8%)
3. Australasia (7%)
4. Europe (47%)
5. North America (27%)
6. South America (10%)

"The Carbon Disclosure Project is vital, and we've got to get everybody to participate in it."

Bill Clinton
former U.S. President



The countries in which CDP currently runs projects

"Before CDP we had no comprehensive data on corporate greenhouse gases. But with CDP, policy makers, investors and companies themselves can take better informed decisions."

Fredrik Reinfeldt
Swedish Prime Minister

"The Carbon Disclosure Project is independent and impartial, it is a clear and transparent mechanism for anyone to see our carbon footprint and to judge our performance at reducing it."

Sir Terry Leahy
Chief Executive, Tesco plc

"The CDP supports AIG Investments' efforts to assess and analyze trends in risks and opportunities associated with climate change and its mitigation. Climate change continues to be a major financial and investment concern for us and our clients."

Win J Neuger
Chief Executive, AIG Investments

corporations of the importance of climate change and its relation to business strategy and shareholder value. Analysis of this year's responses shows an advance in greenhouse gas emissions accounting with scope 3, or indirect emissions reporting, registering an increase since 2007.

CDP is currently conducting further research into how investors use CDP data in order to improve our understanding of the investment community's requirements. The results to date show signatory investors using company responses to CDP in:

- Company engagement;
- Qualitative checking;
- Sell-side research;
- The filing of shareholder resolutions; and
- The creation of new products and indices.

This year more than 2,000 additional companies were brought into CDP's system through the new CDP Supply Chain Project. More than 30 companies, including **Tesco**, **HP**, **Kellogg** and **Vodafone** now use the CDP system to collect climate change relevant data from their suppliers. This represents a significant achievement by the corporate community, demonstrating how collaboration is key to better understand climate change and its impacts on procurement.

Carbon disclosure has assumed heightened importance on the political agenda and the CDP process has received support from political leaders globally.

Government and public sector organizations also understand the importance of measuring their own carbon risks and emissions. More than 30 cities in the U.S. are currently working together to report through the CDP system, a development that will yield a much better understanding as to how cities are preparing for the low carbon economy. CDP is also working with central and local government departments in the UK including the Foreign and Commonwealth Office and the Office of Government Commerce in HM Treasury to understand supply chain emissions, risks and opportunities.

CDP also acts as secretariat for the Climate Disclosure Standards Board (CDSB), which aims to promote and advance climate-change-related disclosure in mainstream reports through the development of a global framework for corporate reporting on climate change. This framework will elicit comprehensive, consistent and comparable information for investors, as well as offering greater certainty on disclosure requirements for corporations, and thereby provide an influential model for use by national regulators. By working with information users, their advisors, regulators and public interest groups, as well as the four leading accountancy majors and the associated accountancy bodies CDSB aims to support, harmonize and strengthen existing climate-change-related reporting initiatives and standards. Rather than creating a new standard, the aim is to bring together and enhance current best practice in the form of a single consistent framework that can be used for disclosure in mainstream reports.

CDP in the Future:

- CDP is continuously working to improve the quality and quantity of reporting on climate change. CDP is also improving its online reporting system and providing extensive guidance on what should be measured and reported.
- CDP will refine its offering to investors through the provision of more bespoke data to service the requirements of individual investment institutions. CDP is also working to expand the availability of its information through professional data distribution channels.
- CDP plans to continue its expansion around the globe and aims to launch projects in Russia and other locations in 2009.
- CDP has recently launched a new project, 'CDP Finance', working with banks to better understand the opportunities, risks and liabilities with relation to climate change across their client base, including the lending and private equity portfolios.
- CDP is also developing strategic relationships with a range of organizations to further expand CDP's work and reach in the future.
- CDP is working towards a unified global business response to climate change and through its associations with investors, corporations, governments and the other key stakeholders, will continue to help catalyze a sustainable, low carbon economy.

Improved Access to CDP Data via CORE

In September 2008 CDP launched the CORE 2.0 database. CORE stands for COrporate REsponses and it is the enhanced access function for presentation and analysis of the CDP data, allowing all the CDP responses to be searched and sorted by index, geography, sector or CDP question. The results are displayed on screen via a web interface and can be downloaded to Excel.

CORE 2.0 is designed to enable the user to efficiently manipulate the CDP data to their requirements. The CORE 2.0 system has been built utilizing feedback from our signatory members in 2007.

For more information about CORE 2.0 please see www.cdproject.net or contact Daniel Turner at the CDP London office: daniel.turner@cdproject.net

"CDP is one of the most valuable tools we have to help us evaluate climate risk across our whole portfolio."

Brian Rice
Investment Officer, CalSTRS

"The Carbon Disclosure Project is an excellent tool for increasing the exchange of climate information between companies and their institutional investors."

Bendt Bendtsen
Danish Minister for Economic and Business Affairs

"The specialist focus of the Carbon Disclosure Project provides a suitably rigorous structure for an overview of a company's response to climate change, and the survey template is a very helpful management tool for us to assess climate-related risks and opportunities in our own business. It also allows us to benchmark our practices against peers."

Sir Tom McKillop
Chairman, Royal Bank of Scotland Group

"CDP extends its sincere thanks to all of our partners and sponsors around the world for their help in making the CDP process a global success."

Paul Dickinson
Chief Executive, Carbon Disclosure Project

CDP Global Key Trends

The sixth iteration of the Carbon Disclosure Project saw even greater coverage than in previous years, with information being requested from over 3,000 companies worldwide.

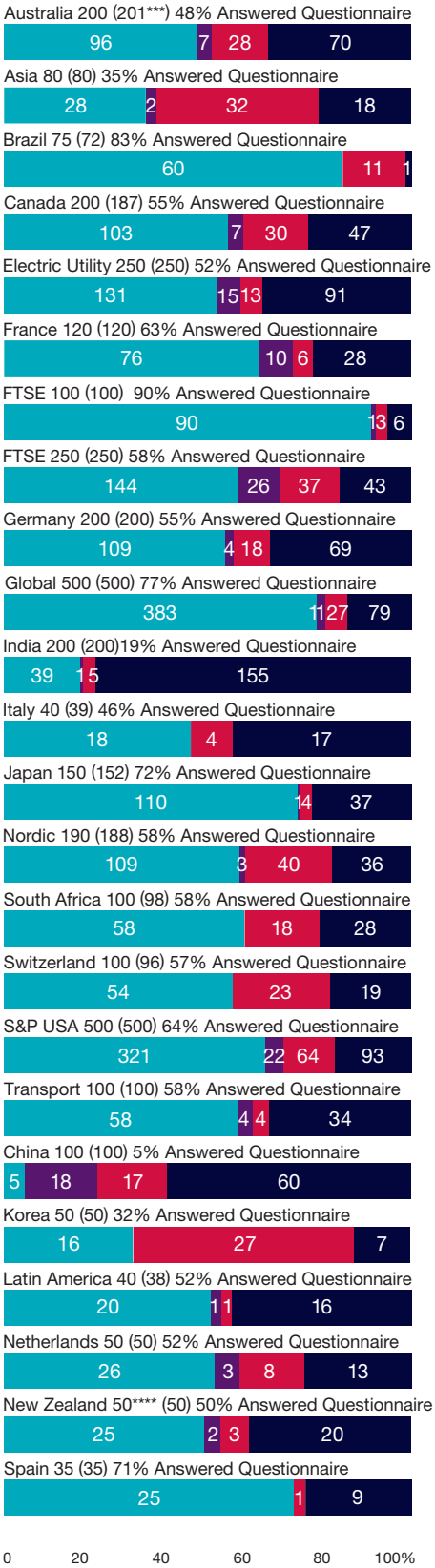
In 2008 CDP was expanded to cover 21 geographical samples (up from 16 in 2007) and 2 sector samples (Electric Utilities and Transport). New geographical expansions in 2008 include China, Korea, Latin America, the Netherlands, and Spain. The corporations' responses and reports analysing findings from these samples will be posted on the CDP website as they are launched worldwide. Please see www.cdproject.net for further details.

Response rates across the vast majority of samples are above 50% with an average rate of 55%; the highest being the FTSE 100 reporting a 90% (90 companies) response rate. The Brazil 75 came a close second with 83% (60) of companies answering the questionnaire compared to the Global 500 which saw 77% (383) of companies answer the questionnaire. Responses from S&P 500 companies improved significantly: up from 56% (282) in 2007 to 64% (321) this year. This increase sends a positive message from corporate America, signalling that companies are preparing for the inevitable carbon-constrained economy.

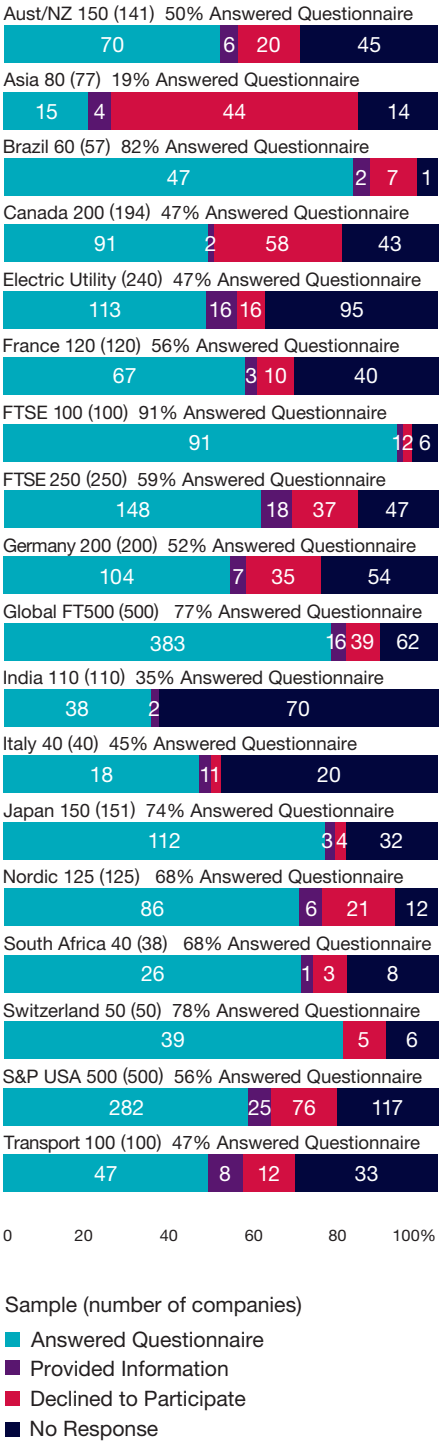
There has been an overall increase in response rates in ten of the samples compared to CDP5; Asia, Brazil, Canada, Electric Utility, France, Germany, Italy, New Zealand, S&P 500 and Transport. The Global 500, FTSE 100/250 and Japan 150 samples reported similar response rates to last year. India was also similar in terms of absolute responses but declined overall due to a doubling of the sample size. Four further samples reported an increase in the absolute numbers of responses but an overall percentage decrease because the sample size was expanded this year; Australia 200, Nordic 190, South Africa 100 and the Switzerland 100.

In some of the emerging economies where CDP has recently expanded such as Asia, China and India there are significant challenges caused by: lack of familiarity with CDP amongst companies new to the process, language and cultural barriers and a lack of regulation on climate change which all contribute to a lower response rates from these regions. CDP is working closely with its global partners to overcome these barriers.

CDP6 Response by sample*



CDP5 Response by sample**



* Response rates calculated at 31 July 2008; numbers may differ from local report that calculated response rates before or after this date.

** Response rate as published in CDP5 Report.

*** The first listing is the official sample name, the number in brackets is the actual number of companies that were included in CDP6 for that sample.

**** New Zealand is included as an individual sample for the first time, having previously been combined with Australia.

The increasing media focus on climate change and the regulatory and policy changes in many countries is increasing the pressure on corporations to consider what climate change means for their business. Compared to CDP5 there has been a sharp increase across nearly all samples in the percentage of companies addressing climate change at board level. Especially notable is the increase in board members taking responsibility for climate change. In the FTSE 100 this has risen from 53% (48) to 89% (80) of responding companies and in the FTSE 250 there has been an increase from 24% (35) to 84% (121). For meaningful corporate change to occur, it must come from the board room, and these trends imply that awareness is likely to lead to action.

While the increased focus on climate change can be attributed to a variety of factors, companies are increasingly commenting on the specific risks and opportunities driving new management plans. Both regulatory and physical risks factor heavily into corporate strategy, as can be seen in the key trends table. The Australia 200, Electric Utilities 250, FTSE 100, Japan 150 and Spain 35 expansions are particularly attuned to potential risks from climate change.

The results show a significant increase in the percentage of responding companies that have GHG emissions reductions plans. Especially notable are the Nordic 190 sample's increase: from 23% (19) to 62% (68) of responding companies who have reduction plans, and the FTSE 100's progress from 41% (37) to 81% (73) when compared to CDP5. While this increase in attention to climate change targets is a positive step, there is still a need for formal verification of emissions figures and reductions. This will become fundamental as further regulation comes into force and the price for carbon globalizes.

Given the significant increase in companies making reduction plans we anticipate that in the coming years there may be a subsequent uptake in companies verifying their emissions data.

While the China 100 sample answered questionnaire rate was lowest, it can still be interpreted positively. 2008 was the first time the China 100 was asked to respond to the CDP information request. A variety of factors, including language, cultural differences and a lack of historical requirements on Chinese companies to measure and report climate change information made the initial approach challenging. However the fact that 5% of Chinese companies answered the questionnaire and a further 18% provided information is a promising start and it is likely that the number of responses will grow in the future as CDP develops a presence in China.

CDP6 Global partner information*

Country/Expansion	Partner	Web Address
Asia ex-Japan	Association for Sustainable and Responsible Investment in Asia (ASrIA)	www.asria.org
Australia & New Zealand	Investor Group on Climate Change Australia/New Zealand (IGCC)	www.igcc.org.au
Brazil	Brazilian Association of Pension Funds (ABRAPP) & Banco Real	www.abrapp.org.br www.bancoreal.com.br
Brazil	Brazil Facilitation Team: Fabrica Ethica Brasil	www.fabricaethica.com.br
Canada	The Conference Board of Canada	www.conferenceboard.ca
China	China Facilitation Team: SynTao	www.syntao.com
France	AXA	www.axa.com
Germany	BVI Bundesverband Investment und Asset Management e.V. & WWF Germany	www.bvi.de www.wwf.de
India	WWF India	www.wwfindia.org
Korea	Korea Sustainability Investing Forum (KoSIF), Eco-Frontier & ASrIA	www.kosif.org www.ecofrontier.co.kr www.asria.org
Latin America	Brazilian Institute of Investor Relations (IBRI)	www.ibri.org.br
Latin America	Latin America Facilitation Team: Fabrica Ethica Brasil	www.fabricaethica.com.br
Netherlands	VROM (The Dutch Ministry of Housing, Spatial Planning and the Environment)	www.vrom.nl
Nordic	ATP, Folksam, KLP & Nutek (Swedish Agency for Economic and Regional Growth)	www.atp.dk www.folksam.se www.klp.no www.nutek.se
South Africa	National Business Initiative (NBI)	www.nbi.org.za
Spain	Ecodes	www.ecodes.org
Switzerland	Ethos/Pictet Asset Management	www.ethosfund.ch www.pictet.com

Key Trends

	Number of Responses Analyzed*	% of companies that see regulatory risks	% of companies that see physical risks	% of companies that see regulatory opportunities	% of companies that see physical opportunities
Asia 80	28	71	79	79	71
Australia 200	94	84	82	82	61
Brazil 75	47	49	77	83	57
Canada 200	90	70	63	78	58
China 100	3	33	33	33	33
Electric Utility 250	109	88	77	86	62
France 120	71	60	52	79	56
FTSE 100	88	81	76	80	65
FTSE 250	125	71	66	75	61
Germany 200	94	51	46	68	40
Global 500	384	74	74	80	62
India 200	27	33	70	82	52
Italy 40	17	71	77	82	65
Japan 150	104	90	82	79	64
Korea 50	15	67	93	100	60
Latin America 40	15	73	73	80	60
Netherlands 50	26	64	68	84	52
New Zealand 50	25	72	64	80	60
Nordic 190	109	72	61	81	57
S&P 500	314	60	64	70	50
South Africa 100	53	76	89	85	64
Spain 35	25	84	68	80	56
Switzerland 100	53	45	49	59	45
Transport 100	59	80	81	75	51

	% of responding companies that disclosed GHG emissions data	% of responding companies that had their GHG emissions data externally verified	% of responding companies that have a GHG emissions reduction plan	% of companies that have a Board Committee responsible for CC	% of companies engaged/considering participation in emissions trading**
Asia 80	57	36	54	68	18
Australia 200	78	39	49	73	17
Brazil 75	49	19	43	60	21
Canada 200	70	28	46	72	18
China 100	0	0	66	33	33
Electric Utility 250	70	57	60	75	46
France 120	75	56	75	69	42
FTSE 100	91	71	81	89	41
FTSE 250	65	35	50	84	14
Germany 200	51	3	50	68	33
Global 500	80	57	74	80	35
India 200	41	19	52	52	23
Italy 40	77	65	53	59	53
Japan 150	95	50	90	94	43
Korea 50	67	13	60	80	40
Latin America 40	73	33	47	73	53
Netherlands 50	84	68	64	76	36
New Zealand 50	60	40	48	56	8
Nordic 190	71	42	61	80	28
S&P 500	67	35	53	64	22
South Africa 100	79	30	45	81	21
Spain 35	96	80	76	84	40
Switzerland 100	64	34	53	68	17
Transport 100	71	46	70	85	24

* calculated by CDP on 31 July 2008, the number does not include those companies which refer to a parent or subsidiary company response

** based on their approaches to both EU ETS and other regional and optional emissions trading and offset schemes

2

Carbon Disclosure Leadership Index and Methodology

The Carbon Disclosure Leadership Index (CDLI) highlights the leading CDP6 respondents. These respondents have not only provided a high level of climate change disclosure, but have also agreed to share their submissions publicly.

Overview of the CDLI

While companies submitting their responses have been quoted liberally throughout the report, the CDLI companies should receive additional recognition for their high levels of disclosure and willingness to submit their reports on a public basis. The CDLI leaders demonstrate that a tremendous amount of thought, effort, and detail went into developing their climate change strategies and preparing their submissions to CDP. Their responses provide institutional investors with a wealth of information that can inform investment decisions.

However, it should be noted that, while the CDLI score is a good indicator of how well a company has responded to the CDP6 questionnaire, it does not fully reflect company performance in climate change management, and it does not account for absolute emissions, reduction achievements, or carbon intensity in awarding the rating.

For easy reference, Scope 1 and Scope 2 emissions, as well as their corresponding carbon intensity, are disclosed in the CDLI scoring. Scope 3 emissions are also listed — though since methods for measuring Scope 3 are less refined, these are difficult to compare between companies.

Any CDP6 company response that is “not public” is not eligible for inclusion in the CDLI because, by definition, that company is not showing best disclosure practice.

Of the S&P 500 companies responding to CDP6 and analyzed in this report, 243 (77%) elected public disclosure of their submitted data. Seventy-one (23%) requested that their submissions not be made public and therefore are only provided to signatory investors and used here for aggregate analysis. Complete text transcripts of public responses to CDP6 are available without charge on the CDP website (www.cdproject.net). This rich source

of data is useful to both the investment community and to companies seeking insight into the perspectives and activities of their industry peers. Selected results for companies not electing public disclosure appear in Appendix I, and are limited to the company's name, CDLI score and submission status only.

Overview of the CDP6 Questionnaire and Guidance

The CDP6 questionnaire is organized in four sections: Risks and Opportunities, Emissions Accounting, Performance against Targets, and Governance. New questions in CDP6 focus on data accuracy and stakeholder/policy engagement.

This year, CDP provided a set of comprehensive guidance notes indicating best practice responses to each question. The questionnaire is included in Appendix II of this report. The guidance notes are available on the CDP website, www.cdproject.net.

Overview of the Scoring and Weighting System

The scoring system calculating companies' CDLI ranking for CDP6 is as follows: Each question response was assessed on the basis of its conformity to the provided guidance and weighted, based on that question's relative importance. The methodology and weightings were developed jointly between CDP and Pricewaterhouse-Coopers LLP in the UK, and can be found in Appendix II.

In CDP6, all responding companies were encouraged to answer every question, but a distinction was drawn between "minimum requirement" and "comprehensive" answers, with the expectation that companies in carbon-intensive industries would answer both categories of questions.

Compared to previous years, the CDP6 CDLI rankings methodology provides greater transparency and, as fewer questions are required for companies in non-carbon-intensive industries, it rewards those companies for making an additional effort to provide comprehensive responses. Specifically, carbon-intensive sectors were scored on the basis of all questions, while non-carbon-intensive sectors were scored on the basis of only the minimum questions required for consideration, with extra credit given for "comprehensive" answers. The impact of this is that companies in non-carbon-intensive sectors have tended to achieve higher overall scores. It should be noted, therefore, that comparisons within different sector groupings (carbon-intensive/ non-carbon-intensive) are perhaps more meaningful than comparisons across sector groupings. The detailed scoring methodology is provided in Appendix II.

Data Quality and Accuracy

Data presented and reviewed in this report is self-reported by the CDP6 respondent companies and has not been verified for the purposes of this report (although some companies have provided verification statements commissioned for their own purposes). CDP has made its best efforts to clarify any responses that appear incorrect or confusing directly with CDP6 respondent companies, but has not carried out any formal due diligence or any other form of assurance on the responses or underlying data.

The scoring system is based on quantitative and qualitative assessment of responses; broadly, this ranges from whether a question was answered to the depth of the response. Therefore, there exists an element of subjectivity in the scoring, though mitigated to the greatest possible extent through the provision of detailed guidance on the scoring process and through the use of multiple reviewers benchmarked against each other.

The CDLI leaders demonstrate that a tremendous amount of thought, effort, and detail went into developing their climate change strategies and preparing their submissions to CDP.

The CDP6 questionnaire is organized in four sections: Risks and Opportunities, Emissions Accounting, Performance against Targets, and Governance.

A good score can be achieved by following the guidance issued by CDP and providing a comprehensive description of activities.

The best responses are both specific and detailed.

The average CDLI score for all respondents across carbon-intensive companies was 46.6 points.

On Grouping Industries by Carbon-Intensity

All CDP responses were assessed and rated out of a possible 100 points. The top 30 responding companies in carbon-intensive industries and the top 30 in non-carbon-intensive industries have been included in the CDLI.

For purposes of comparison and ease-of-use, carbon-intensive and non-carbon-intensive sectors were split at the industry-by-industry level. As a result, some companies with relatively low emissions in high-emitting industries, and some companies with relatively high emissions in low-emitting industries, may appear to be rewarded (in the case of the former) or disadvantaged (in the case of the latter).

How Response Quality Is Assessed

The CDLI focuses on disclosure, not climate change performance *per se*. In general, a high score can be achieved by following the guidance issued by CDP and providing a comprehensive description of activities. A company without a climate change strategy and associated measurement systems and targets will not score highly. The best responses are both specific and detailed. A low score could be attributable to one or more of the following reasons: The respondent did not fully answer the question asked; the response lacked specificity to the company; the respondent did not provide any relevant data or specific information to support the statements being made.

Carbon-Intensive Industries

Among companies in carbon-intensive industries, Utilities are strongly represented on the CDLI, which comes as no surprise, but nonetheless highlights the strong performance of leading companies in this industry (see Figure 4).

The average CDLI score for all respondents across carbon-intensive companies was 46.6 points.

The highest scoring carbon-intensive companies in CDP6 are **PPG Industries** and **Exelon Corporation,** with 80 points and 78 points respectively (see Figure 5). While the methodology for computing the CDLI changed from CDP5 to CDP6, scores for both companies increased in CDP6. These scores reflect the quality, completeness and comprehensiveness of the climate change disclosures made. These companies appear to be making climate change an integral part of their overall strategy and positioning themselves to benefit from the transition to a carbon-constrained economy.

For the purposes of this report, “respondents” refers to companies that completed the CDP6 Information Request and does not include those responding to CDP outside of the standard response format. Accordingly, companies that provided information to CDP in 2008, but did not answer the CDP6 questions, have not been scored or included in the analysis.

Fig. 4: Composition of Carbon Disclosure Leadership Index by Industry (Carbon-Intensive Sectors)

Industry	Number of companies in CDLI, by industry	CDLI Composition, by industry	Average Score of CDLI Companies, by industry
Chemicals and Pharmaceuticals	10	34%	69
Construction and Building Products	0	0%	N/A
Manufacturing	4	13%	63
Oil and Gas	1	3%	74
Raw Materials, Mining, Paper and Packaging	3	10%	68
Transport and Logistics	1	3%	63
Utilities	11	37%	69

Fig. 5: Carbon Disclosure Leadership Index for Carbon-Intensive Industries

Sector	Company	CDLI score	Scope 1*	Scope 2*	Intensity**
Chemicals and Pharmaceuticals	PPG Industries	80	4,826	2,101	618
	Praxair, Inc.	74	3,168	11,000	1,507
	Baxter International Inc.	74	252	476	65
	Johnson & Johnson	74	343	580	15
	Pfizer Inc.	67	1,058	1,136	45
	Dow Chemical Company	66	29,600	7,700	697
	Bristol-Myers Squibb	64	435	537	50
	E.I. du Pont de Nemours & Company	63	9,800	4,200	476
	Allergan, Inc.	63	41	78	30
	Schering-Plough	61	140	419	44
Manufacturing	General Motors Corporation	66	3,090	6,500	53
	Eaton Corporation	63	123	826	73
	3M Company	61	7,400	1,690	372
	Ford Motor Company	61	1,880	3,881	33
Oil and Gas	Chevron Corporation***	74	63,759	(3,097)	275
Raw Materials, Mining, Paper and Packaging	Alcoa Inc	74	31,100	27,900	1,919
	Newmont Mining Corporation	66	2,886	983	700
	Plum Creek Timber Company, Inc.	64	32	3	21
Transport and Logistics	United Parcel Services, Inc.	63	7,516	728	166
Utilities	Exelon Corporation	78	11,000	150	589
	FPL Group, Inc.	77	50,000	18,346	4,350
	Consolidated Edison	75	6,378	89	493
	NiSource Inc.	74	27,096	239	3,443
	Public Service Enterprise Group Incorporated	69	24,682	1,146	2,009
	Ameren Corporation	69	68,189	–	9,036
	Progress Energy Inc.	66	53,063	–	5,797
	Xcel Energy Inc	66	56,450	4,117	6,036
	Spectra Energy Corporation	64	11,784	1,417	2,784
	Entergy Corporation	61	32,522	1,136	2,931
	Duke Energy Corporation	61	103,600	–	8,145

* Scopes 1 and 2, or total global emissions where companies reported only a total figure; units in thousand metric tons of CO_2-e.

** Disclosed Scope 1 and 2 emissions totals divided by disclosed annual revenue.

*** See Chevron response for more detail on how its Scope 2 emissions have been reported.

Financial Services companies have historically featured strongly in the CDLI, reflecting the industry's commitment to carbon disclosure and the strategic importance of climate change to Financial Services institutions.

Non-Carbon-Intensive Industries

Leaders in the non-carbon-intensive industries generally chose to provide comprehensive answers to all the questions, rather than just addressing the minimum requirements stipulated by CDP. This demonstrates a positive, proactive approach to carbon disclosure, and highlights that many companies in non-carbon-intensive sectors recognize that carbon is strategically important to their overall value chain, even if their own direct emissions are relatively low.

As a result, the leaders in these sectors have scored very highly, with all 30 companies attaining over 85 points, compared to an average of 57.2 points for all non-carbon-intensive companies responding to CDP6. Financial Services companies demonstrated the strongest performance, while technology companies exhibited substantially weaker performance (see Figure 6). As noted previously, these results are not directly comparable with the scores for companies in the carbon-intensive sectors.

Financial Services companies have historically featured strongly in the CDLI, reflecting the industry's commitment to carbon disclosure and the strategic importance of climate change to Financial Services institutions, notwithstanding the relatively low level of their own Scope 1 and Scope 2 emissions. Institutional investors, in particular, increasingly understand that the impact that they have on GHG issues is substantial because of their investment portfolios. The highest scoring companies in this industry were **Merrill Lynch & Co., Inc.**, with a score of 98, and **Comerica Inc.** and **Citigroup**, which both scored 97 (see Figure 7).

The only other company to score 98 points was a technology company, **EMC Corporation**. The technology sector is typically an area with relatively low emissions in absolute terms, but with a strong focus on environmental risks and opportunities.

Fig. 6: Composition of Carbon Disclosure Leadership Index by Industry (Non-Carbon-Intensive Sector)

Industry	Number of companies in CDLI, by industry	CDLI Composition, by industry	Average Score of CDLI Companies, by industry
Financial Services	8	27%	93
Hospitality, Leisure and Business Services	6	20%	91
Retail and Consumer	9	30%	90
Technology, Media and Telecoms	7	23%	91

Fig. 7: Non-Carbon-Intensive Sectors

Sector	Company	CDLI score†	Scope 1*	Scope 2*	Intensity**
Financial Services	Merrill Lynch & Co., Inc.	98	12	365	6
	Comerica Inc.	97	8	54	13
	Citigroup Inc.	97	45	1,366	17
	Wells Fargo & Company	97	42	539	15
	Genworth Financial Inc.	92	–	17	2
	Hartford Financial Services Group Inc.	90	36	92	5
	Legg Mason	89	2	16	4
	Travelers Companies. Inc	87	25	49	3
Hospitality, Leisure and Business Services	ProLogis	97	1	8	1
	Carnival Corporation***	93	9,858	82	763
	International Business Machines Corporation	92	599	2,266	29
	Johnson Controls, Inc.	91	524	1,133	48
	Simon Property Group	88	27	776	220
	Electronic Data Systems	85	64	520	26
Retail and Consumer	Coca Cola Company	93	1,933	3,050	173
	Brown-Forman Corporation	92	103	66	65
	H.J. Heinz Company	91	556	355	91
	Molson Coors Brewing Company	90	747	508	203
	Colgate-Palmolive Company	90	244	431	49
	PepsiCo, Inc.	90	2,332	1,471	96
	Kimberly-Clark Corporation	88	2,804	3,397	340
	Wal-Mart Stores, Inc.	87	5,161	15,079	54
	Sara Lee Corporation	86	310	562	71
Technology, Media and Telecoms	EMC Corporation	98	32	232	20
	Cisco Systems, Inc.	96	66	479	16
	Dell Inc.	91	35	403	7
	Juniper Networks	89	3	36	13
	Hewlett-Packard Company	88	103	1,416	15
	Advanced Micro Devices	87	101	349	75
	Intel Corporation	87	1,152	2,527	96

† CDLI Scores in this table have been rounded up or down to the nearest whole number.

* Scopes 1 and 2, or total global emissions where companies reported only a total figure; units in thousand metric tons of CO_2-e.

** Disclosed Scope 1 and 2 emissions totals divided by disclosed annual revenue.

*** Carnival classifies itself as a hospitality and leisure company, rather than a transport provider. As such, the company is featured in the “non-carbon-intensive” sector despite its relatively high emissions compared to some of its industry peers. The CDLI methodology states that a company’s classification as carbon-intensive or non-carbon-intensive is based solely on that company’s self-identified industry grouping, rather than on actual company emissions.

Why Are Environmental Factors Important to Investors?

By Michael McCauley, Senior Corporate Governance Officer, Florida State Board of Administration (SBA)

We have found CDP represents an efficient process whereby institutional investors can review and analyze the largest registry of corporate GHG emissions in the world.

Reporting today

From an investor's perspective, the quality of a company's strategies, management, and historical performance in dealing with opportunities and risks deriving from environmental changes, social developments, and corporate governance can be quantified and used to make investment decisions. Corporate sustainability is a business approach that attempts to create long-term shareowner value by embracing opportunities and managing risks stemming from economic, environmental, and social developments. Companies integrating sustainability issues into their business model include these non-financial issues to successfully reduce and/or avoid certain costs and risks. As part of the asset management responsibilities of the Florida State Board of Administration (SBA), investments are undertaken with a strong focus on maximizing long-term returns, controlling costs, and achieving appropriate diversification in order to minimize risk.

Historically, the SBA has been proactive on many corporate governance issues, emphasizing those factors that directly impact investment values. Increasingly, investors are incorporating emerging issues such as the environment into their investment calculus. As a result, many companies are intensifying their approach to corporate responsibilities and expanding the scope of their disclosures related to burgeoning risks.

The SBA joined the Carbon Disclosure Project (CDP) initiative in 2007, and has been a leading advocate for full and transparent disclosures across a broad spectrum of corporate governance issues, including a company's carbon footprint. We have found CDP represents an efficient process whereby institutional investors can review and analyze the largest registry of corporate GHG emissions in the world.

As climate change continues to gain attention and emerge as a leading boardroom concern, shareowner advocates contend that environmental risks affect a company's bottom line, and that they are beginning to be factored into fundamental investment decisions. Such risks are viewed by growing ranks of investors to be on par with litigation risk, hazardous-waste risks, and others.

New regulations tied to climate change have been established in more than 30 states, including Florida, and most policymakers believe that some form of additional federal legislation is highly likely within the next few years. In January 2009, New York and nine other Northeastern states will start a program to cap and trade carbon dioxide emissions. In 2006, California passed an act aiming to reduce the state's GHG emissions. In 2007, Florida enacted similar GHG emission reductions. Perhaps most importantly, the U.S. Supreme Court ruled in 2007 that the Environmental Protection Agency (EPA) had the authority to regulate GHGs as pollutants. As reported in The Wall Street Journal, "regulations like these could drive up costs for some companies by putting a price on emitting greenhouse gases. **Citigroup** recently downgraded coal stocks for, among other issues, the uncertainty of future costs associated with carbon emissions."[2]

2 "Gauging the Climate for Investing," The Wall Street Journal (September 24, 2007).

GHG Emissions Disclosure
In late 2007, the SBA joined the Coalition for Environmentally Responsible Economies (Ceres), Environmental Defense, and other institutional investors endorsing the Petition for Interpretive Guidance on Climate Risk Disclosure. The petition urged the U.S. Securities and Exchange Commission (SEC) to promptly issue interpretive guidance clarifying that a registrant's obligation to disclose material information encompasses climate-related risk, including impacts arising from present governmental regulation of GHG emissions and business effects associated with climate change under existing law, including Regulation S-K. The signatories to the petition also requested that the SEC's Division of Corporation Finance carefully scrutinize the adequacy of registrants' disclosures concerning climate risk under existing regulations. The SBA believes access to material information concerning the risks and opportunities that companies face, and their means of addressing those risks and opportunities, is important to investors.

The SBA urged the SEC Division of Corporation Finance to compare disclosures of firms within an industry, and make further inquiries of registrants that have failed to disclose potential material information that their competitors have disclosed. Also, when registrants do disclose climate-related initiatives in voluntary disclosures such as sustainability reports, but not in their mandatory disclosures under Regulation S-K, division staff should review whether such information is material to corporate performance and operations and therefore subject to disclosure in mandatory filings. It is the materiality of the information that is important for determining disclosure requirements.

The SBA believes that climate change can reasonably be expected to have material effects on registrants' performance and operations and, therefore, is subject to disclosure and discussion under existing SEC requirements.

Broad-based investor demand for climate risk information underscores the conclusion that this information is material in the assessment of many corporations' performance and operations and is critical to investors' ability to make informed assessments about corporate value. However, recent comprehensive reviews of corporate climate risk disclosures demonstrate that, although many registrants engage in some disclosure, overall these disclosures have been inconsistent, non-existent, or inadequate. Because current disclosures are frequently inconsistent, closely scrutinizing the adequacy of corporate climate disclosures should now be a high priority for all shareowners.

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3

The Big Picture: Taking Stock of Climate Protection

This year's S&P 500 respondents shed light on the ways in which companies across industries are approaching — and in many ways providing leadership on — the climate change issues that are driving government policies and consumer attitudes.

Increased participation in CDP6 indicates that many of the largest enterprises in the U.S. are preparing for imminent federal emissions regulation and are responding to state-level regulations — such as the Regional Greenhouse Gas Initiative (RGGI) — already in place. This convergence of corporate, government and consumer attention to climate change creates many benefits, including greater clarity on where the carbon-constrained economy is going and how it will effectively grant or rescind companies' "continuing license to operate" depending on their response to climate change.

Macroeconomic and Corporate Trends

As described in the respondents' submissions, there are a variety of macroeconomic trends driving shifts in corporate attitudes toward climate change and carbon disclosure practices.

- Higher energy prices, while most visible at the gas pump, are also impacting many aspects of the U.S. economy and companies' extended supply chains.
- An economic slowdown in the U.S. is driving changes in consumer purchasing behaviors and business strategies.
- With the upcoming presidential elections and the advent of a new administration, the U.S. is likely to see GHG emissions regulations on a state, regional, federal or combination basis.
- Companies are gaining more experience with GHG emissions trading programs as regional programs such as the RGGI, Western Climate Initiative (WCI), Midwestern Greenhouse Gas Accord (MGA) and Chicago Climate Exchange (CCX) are launched or expanded.

- Carbon pricing signals are coming into clearer view, particularly as U.S. companies move from relying on shadow pricing to pricing based on mandatory GHG emissions trading programs and the "internalization" of emissions externalities.
- Finally, the reputational impacts associated with climate change are becoming increasingly clear to U.S. companies as a result of the rising level of stakeholder concern around the issue.

Simply put, for leading disclosers, climate change is no longer just an environmental issue, but increasingly has significant operational, financial, strategic, reputational, and compliance implications. In today's dynamic business and political landscape, it is now imperative for companies to address climate change.

Setting the baseline for progress

A principal message emerging from S&P 500 respondents to the CDP6 information request is that more companies are thinking about, measuring and disclosing their GHG emissions in an effort to establish company-specific climate change strategies.

CDP6 saw more companies disclosing actual GHG emissions within specific categories, in an effort to both understand their emissions baselines and gauge progress toward climate protection (see Figure 8). This year, 214 (68%) S&P 500 respondents reported Scope 1 (direct) emissions, rising 43% from the 150 who reported Scope 1 emissions in CDP5. The number of companies reporting Scope 2 emissions jumped to 198 (63%) this year, for a 49% increase over the 133 respondents who reported Scope 2 emissions in CDP5.

In terms of actual emissions, responding companies reported more than 1.7 billion metric tons of Scope 1 GHG emissions, and just over 253.7 and 237.1 million metric tons of Scope 2 and 3 emissions, respectively. As expected, Utilities accounted for the greatest share of Scope 1 emissions. Retail & consumer companies, however, accounted for more than 62% of all reported Scope 3 emissions across industries.[3] An additional 98.4 million metrics tons, not specifically identified as Scope 1, 2 or 3 emissions, were also reported.

The rising cross-industry response rates, across almost all questions in the CDP6 information request, strongly suggest a convergence of thinking. This year's responses show a consensus among disclosing companies that taking stock of GHG emissions and carrying out reduction schemes have become central, bottom-line business priorities.

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3 There is double-counting in emissions reporting across emission scopes. For example, some companies' Scope 2 or Scope 3 (indirect) emissions are considered Scope 1 emissions (direct) by other companies (Utilities and transport providers, in particular).

Fig. 8: Emissions Totals by Emissions Category and Industry*

Sector	Scope1		Scope 2		Scope 3	
	CO_2 Emissions (in metric tons)	Industry Share of CO_2 Emissions	CO_2 Emissions (in metric tons)	Industry Share of CO_2 Emissions	CO_2 Emissions (in metric tons)	Industry Share of CO_2 Emissions
Chemicals and Pharmaceuticals	67,700,343	4.0%	43,639,736	18.4%	1,083,249	0.5%
Construction and Building Products	160,353	0.0%	455,229	0.2%	-	0.0%
Financial Services	7,944,549	0.5%	5,733,159	2.4%	80,595,479	34.0%
Hospitality, Leisure and Business Services	26,964,532	1.6%	8,492,249	3.6%	213,295	0.1%
Manufacturing	20,380,912	1.2%	23,693,784	9.9%	142,828	0.1%
Oil and Gas	148,633,073	8.8%	12,633,913	5.3%	73	0.0%
Raw Materials, Mining, Paper and Packaging	93,671,912	5.5%	43,218,361	18.2%	574,993	0.2%
Retail and Consumer	24,260,785	1.4%	44,426,351	18.7%	147,593,999	62.2%
Technology, Media and Telecoms	3,594,843	0.2%	20,849,054	8.8%	3,917,625	1.6%
Transport and Logistics	28,772,368	1.7%	1,262,767	0.5%	-	0.0%
Utilities	1,271,602,880	75.1%	33,202,010	14.0%	2,979,471	1.3%
Total**	1,693,686,550	100.0%	237,606,613	100.0%	237,101,012	100.0%

* An additional 98.4 million tons of emissions were reported but no breakdown was provided.

** These total emission figures exclude the disclosures of seven companies that did not submit information requests by the analysis deadline.

4

Pursuing Progress: Establishing, Hitting and Evaluating Targets

Reducing energy consumption and operating costs through energy efficiency initiatives has often been a secondary management objective, falling behind driving organic growth, making strategic acquisitions, building brands and reputations and developing new products and markets.

But rising energy costs — and the potential for additional fees in a carbon-constrained economy — has pushed energy up to a top-priority in boardrooms across the country. Emissions plans and targets have gone mainstream.

Of the S&P 500 companies participating in CDP6, 102 (32%) reported having GHG emission reduction targets. Across all industries, energy costs among respondents averaged $749 million, or an average 5.7% of company operating costs.[4] Naturally, some industries have greater energy burdens and, hence, greater opportunities and incentive to contain these costs. Metals and mining companies, for instance, reported that energy costs accounted, on average, for 23.5% of their operating budgets, while software and computer companies reported energy costs averaging just 1% of their operating budgets.

Targets: Setting the Goalposts

"Over the next five years, we will reduce CO_2 emissions, energy and water consumption and disposed waste per unit of production by an additional 10%, contributing to a 40% reduction, in each area, for the decade."
Procter & Gamble Company

"In 1999, we established a goal to reduce carbon dioxide (CO_2) emissions — our most prevalent GHG — from our facilities in absolute terms: a seven percent reduction by 2010 when compared to our 1990 baseline. This goal was reaffirmed in 2003 when we adopted our worldwide Climate Friendly Energy Policy."
Johnson & Johnson

This year's responses revealed the emissions goalposts that companies are fixing into their sustainability plans: 102 companies (32%) indicated that they had GHG emission targets in place (see Figure 9).

4 Since most respondents were, for proprietary reasons, unwilling to share information on energy costs, this cross-industry figure is based on a low response rate of about one third of 102 respondents reporting that they have GHG emissions reduction targets.

Companies reporting aggressive emissions targets of over 2.5% annualized reductions were in the Manufacturing, Chemicals and Pharmaceuticals, Technology, Media, and Telecommunications industries.

There appears to be harmonization around the protocol most commonly referred to as the GHG Protocol — a Corporate Accounting and Reporting Standard developed by the WRI and the WBCSD.

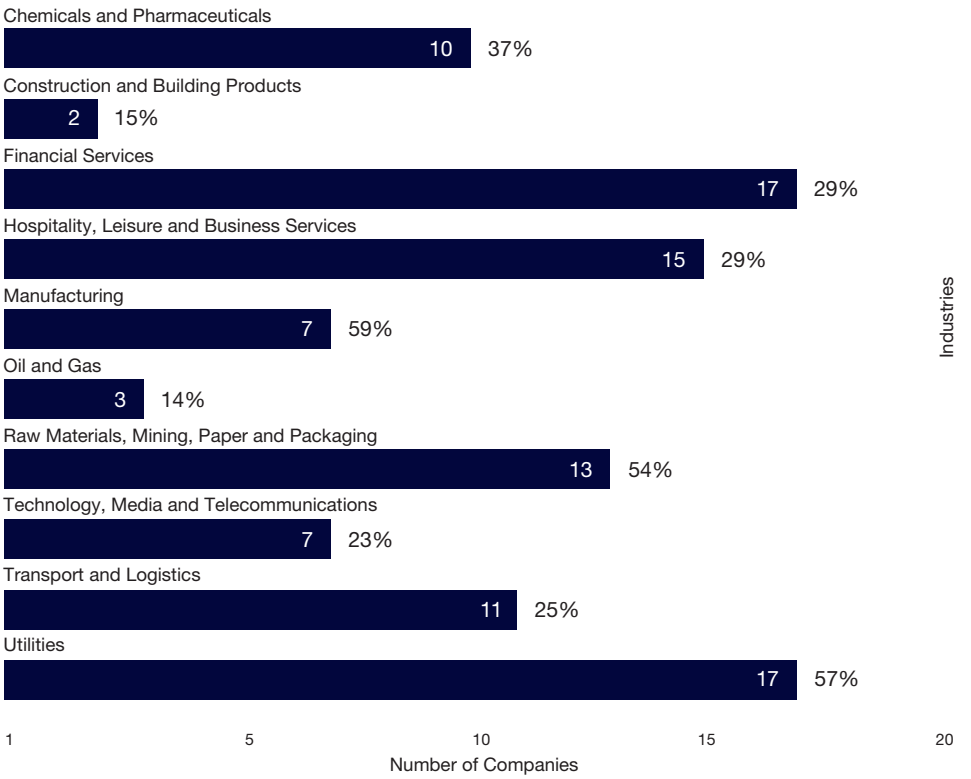
In order to create a clearer picture of how aggressive or modest respondents' targets were, targets were grouped into the following three general categories, each representing a "band" of annualized emission targets:[5]

1. Targets < 2.5% GHG emission reductions per year;
2. Targets 2.5% to 5% GHG emission reductions per year;
3. Targets > 5% GHG emission reductions per year.

Of the 102 companies (32%) indicating emissions reduction targets, 92 (29%) outlined them specifically. Forty-nine respondents (16%) reported annualized GHG emission reduction targets of less than 2.5%, 39 respondents (12%) reported annualized GHG emissions reduction targets between 2.5% and 5%, and 4 (1%) reported GHG emission reduction targets exceeding 5% (see Figure 3, p. 9).

Future targets, in many cases, were hinged on plans to adopt greater percentages of renewable and alternative energy into the energy mix. The industries with the most companies reporting aggressive emissions targets of over 2.5% annualized reductions were Manufacturing, Chemicals and Pharmaceuticals, Technology, Media, and Telecommunications. The companies noting the most ambitious GHG emission reduction targets (those exceeding annualized reductions of over 5%) included **Abbott Laboratories** (30% reduction of CO_2 by 2011), **William Wrigley Jr. Company** (6% CO_2 emissions reduction in 2008), **JDS Uniphase Corporation** (20-37% CO_2 reductions "over next 18 months"), and **Advanced Micro Devices** (33% CO_2 emissions reductions by 2010).

Fig. 9: Number of Companies with Emission Reduction Targets



5 If a company had a 16% reduction target based on four years of implementation, a straight-line estimate assumes 4% reduction per year and the target was counted as representing between 2.5% and 5% GHG emissions reductions per year.

Among the companies committed to setting reduction targets, there are diverse approaches to what is being targeted, what is being included in the company's "boundaries," and how aggressively those targets are set. This is consistent with the GHG Protocol (see right), which provides standards and guidance for organizations preparing GHG emissions inventories, but which also recognizes that companies and their emissions vary.

Responses to the CDP6 questions on emissions targets and emissions reduction plans also revealed that certain industries are leading the charge on reducing future GHG emissions. The industries with the greatest percentage of responding companies reporting established emission targets are Manufacturing; raw materials, mining, paper and packaging; and Technology, Media, and Telecommunications.

"In the United States 'Climate Vision' agreement with the Department of Energy, Alcoa as part of the Aluminum Association agree to a combined direct carbon emission intensity reduction (TCE/tonne) from primary aluminum facilities of 53 percent from 1990 to 2010 based on PFC reductions and reduced anode carbon consumption. This equates to an additional direct carbon-intensity reduction of 25 percent since 2000."
Alcoa Inc.

Some companies noted even more aggressive targets, usually expressed as absolute reduction targets not normalized to sales, revenues, production units, etc. Interestingly, a number of S&P 500 companies with normalized targets are now moving to new GHG emissions targets that are absolute reduction targets:

"By 2025, Dow will stop the growth of absolute emissions of GHG within the company. Dow's absolute emissions will remain below the 1990 baseline and will begin a journey of year-over-year reduction in GHG."
Dow Chemical Company

Protocol Harmonization: WRI/WBCSD Reported as Leading GHG Protocol

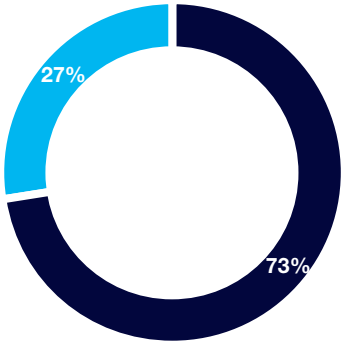
While there is a diversity of guidance used to establish carbon emission boundaries, there appears to be harmonization around the protocol most commonly referred to as the GHG Protocol — a Corporate Accounting and Reporting Standard developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).[6]

Of the companies identifying which verification or audit protocol they used, 204 (73%) reported that they used either WRI/WBCSD's GHG Protocol or a protocol based closely on this standard (see Figure 10). A commonly offered example of such a protocol is the United States Environmental Protection Agency (U.S. EPA) Climate Leaders GHG Inventory Guidance. This industry-government partnership-developed tool is used by S&P 500 and other American companies developing comprehensive climate change strategies to: Complete a corporate-wide inventory of their GHG emissions based on a quality management system; set aggressive reduction goals and annually report progress.

In some cases, companies used emissions reporting protocols or guidance proposed or required by other organizations, such as the World Semiconductor Council, the California Climate Action Registry (CCAR), the International Organization for Standardization (ISO), the European Union Emissions Trading Scheme (EU ETS), or the Chicago Climate Exchange (CCX).

Still others calculated and reported their emissions using protocols developed by industry trade groups such as the American Petroleum Institute, the International Aluminium Institute, or the American Forest & Paper Association.

Fig. 10: Number of companies using WRI/WBCSD GHG Protocol



Yes	204
No	77
Respondents to Question	281

Among the companies committed to setting reduction targets, there are diverse approaches to what is being targeted, what is being included in the company's "boundaries," and how aggressively those targets are set.

6 Please see www.ghgprotocol.org for a downloadable version of the protocol.

With companies using different reporting protocols, investors must look beyond the emissions data provided and identify the underlying guidance or "rules" companies are using to calculate their GHG emissions. CDP hosts the largest repository of corporate GHG emissions data in the world, allowing investors to identify which companies are using which protocols, and which are providing third-party verified GHG emissions data.[7] This kind of information is especially useful to investors attempting to analyze, on a comparable basis, emissions disclosures of companies within the same industry.

Most companies reported having developed systems to assess the accuracy of GHG emissions inventory calculation methods and data processes: 188 respondents (or 60% of the total respondent base) said they had, while 76 companies (24%) noted they had not.

By encouraging the dialogue around emissions reporting, and supporting it with high quality, accessible information, CDP is driving forward the effort to standardize carbon disclosure practices and processes.

Trust…but Verify

It is becoming apparent to most respondents that simply stating the company's emissions and plans to reduce them is not enough. In many cases, companies have opted for third-party verification, which provides an added level of assurance for investors reviewing the data.

115 companies (37%) reported having their emissions information externally verified and audited, while 156 companies (50%) reported that they did not and 43 companies (14%) did not answer the question.

Targets in Progress

A number of companies reported having no emissions targets in place, but described plans underway for creating them. For example:

"Now that we have completed the inventory, we will be evaluating reduction opportunities and then set a reduction target. We explore both absolute and intensity-based targets, and are planning on using calendar year 2007 as our base year."
Legg Mason

"While we expect significant reductions of GHG emissions for the next three years, we have elected not to set specific targets until we have full visibility on our emission sources and their individual contributions, particularly relative to our supply chain. As part of the aforementioned GHG emissions reduction plan, specific reduction targets and timelines will be established and published."
Juniper Networks

Adopting Clean Energy to Help Hit Targets

Many companies pointed out that, as part of their overall emissions reduction goals, they intend to incorporate more renewable and alternative energy into their energy portfolios. For example, **H.J. Heinz Company's** 10-year clean energy goals include deriving 15% of their energy from renewable sources. **Merrill Lynch** has a target of "reducing CO_2 emissions by 2% FTE/year globally between 2008 and 2012, with 2007 as baseline year." Merrill also set a target of "10% overall reduction in CO_2 emissions by 2012 through a combination of energy efficiency and use of energy from new renewable resources."

Other examples of company plans regarding clean energy's role in emissions reductions included:

"Clean Energy Goal: Meet 35% of Pfizer's electricity needs by 2010 through the use of 'clean' energy technologies."
Pfizer, Inc.

"Each News Corp. company is on the path to achieving net zero carbon emissions by 2010, and we intend to reduce our use of non-renewable sources of energy enough to decrease our carbon footprint in 2012 by 10 percent compared with 2006."
News Corp.

"Through the American Petroleum Institute's Climate Action Challenge, ConocoPhillips has committed to achieving a 10% improvement in the energy efficiency of our U.S. refineries between 2002 and 2012."
ConocoPhillips

7 Over 1,550 of the world's largest companies have responded to CDP6 this year. The CDP website also contains historic responses from the world's largest companies from its annual information requests beginning with CDP1 in 2003.

Measuring Up on Climate Change

By Michael R. Bloomberg

"If you can't measure it, you can't manage it." During my time in both the private and public sectors, those words have always served me well. Now, as we face the daunting challenge of confronting global climate change, a data-driven approach to problem-solving will be more important than ever.

As the financial and media capital of the world, New York City recognizes the value of leading by example on the issue of climate change. The international community now agrees that climate change presents a significant threat which requires immediate, collaborative action. New York City, as we have done on matters of public health and safety, is in a position to help set the standard for responsible and innovative leadership. We are working to do just that, and our efforts began with — what else? — data collection.

When we decided to develop a comprehensive sustainability plan to accommodate expected population growth and to reduce our city's carbon emissions, we began by developing baseline data from which our carbon mitigation measures would be based. This foundation is essential for any climate change action strategy, a point recognized by the many companies that are members of the Carbon Disclosure Project, and the reason why New York has joined the many cities now part of the CDP Cities Program.

In April 2007, the City released its first-ever comprehensive greenhouse gas inventory, detailing the sources and levels of emissions from both city government operations and the city as a whole. The inventory also provided the benchmarks from which the city's carbon reduction targets are based: a 30% reduction from city government by 2017 and a 30% reduction citywide by 2030. On Earth Day last year, we released PlaNYC, the City's 127-point sustainability plan that will allow the City to meet these goals through decreases in energy demand, improvements to our power supply, and reductions in transportation emissions.

To track the success of PlaNYC's initiatives, New York published its first annual progress report in April, reviewing the progress we have made on each initiative. We are further documenting our progress by incorporating new sustainability indicators into the City's performance management reporting system. These indicators will allow City agencies and the public to hold us accountable for making steady progress. This reporting system will also institutionalize sustainability ideas and practices into the normal activities of the more than 20 agencies involved in implementing PlaNYC. By next year at this time, we will begin to have a concrete sense of how our city has improved since we launched this effort.

The City's greenhouse gas inventory and sustainability indicators provide complete, transparent disclosure of the City's carbon emissions and the progress we are making toward reducing these emissions. The Carbon Disclosure Project achieves this goal for many of the world's leading corporations. It provides them with a comprehensive registry of global corporate carbon emissions and climate change strategies — information that is crucial in making the investment decisions needed to combat climate change.

To further understand the sources and levels of carbon emissions, we have committed to completing regular updates to both our carbon inventory and sustainability indicators. This monitoring and reporting allows us to closely track the impact of our carbon emissions mitigation efforts, and it allows citizens to hold us accountable for achieving results.

The City of New York joins the world's leading corporations in providing a complete, accurate accounting of its carbon emissions, the strategies it is employing to mitigate those emissions, and the results of its efforts through the Carbon Disclosure Project. This partnership between the world's major corporations and, increasingly, its cities, highlights the importance of the cooperative action needed to successfully counter climate change. Working together, and with the best data, we can manage this problem, and leave our children and grandchildren a healthier and more sustainable planet.

Michael R. Bloomberg is the 108th Mayor of the City of New York.

The Mainstreaming of Scope 3 Emissions

Responses to CDP6 show that the number of companies reporting some of their Scope 3 emissions is on the rise. Reasons for this increased level of reporting include:

- Forward thinking companies across industries, having adequately tracked the lower-hanging fruit of Scope 1 and 2, are now starting to address Scope 3 emissions, which have traditionally been more difficult to identify and track.
- Companies in non-carbon-intensive industries, which are more likely to track and report Scope 3 emissions as they are often more significant than Scope 1 and 2, are reporting to CDP in increased numbers.
- More companies are responding to consumer concerns around climate change, and are thus calculating and reporting on the emissions most relevant to that important stakeholder base. For non-carbon-intensive industries, these often fall under Scope 3.
- More companies are seeking to engage employees in their emission reduction efforts and, as a result, are making a more concerted effort to manage their indirect, employee-related emissions.

Scope 3 emissions cover a range of emissions categories, including those derived from the extended supply chain, distribution and logistics, employee travel, and use of products and services. The majority of respondents disclosing Scope 3 emissions list employee travel as the most significant source of emissions in this category (see Figures 11 and 12). Reporting of emissions linked to the supply chain and those derived from the use and disposal of company products lags far behind.

It is not surprising that employee travel is the most commonly reported category of Scope 3 emissions, as it is the easiest to calculate.

Emissions resulting from employee travel, once measured, are also among the easiest to reduce. For example, **Genworth Financial** reports increased use of videoconferencing: "We have recently installed high quality videoconferencing at all major facilities to substantially reduce business travel costs and emissions. This metric will be tracked against departmental travel budgets."

Missing Links in the Supply Chain

Scope 3 emissions cover a broad spectrum of indirect emissions, and reporting across that spectrum is varied. Only eight respondents (3%) reported emissions from their extended supply chains, whereas 72 (23%) report emissions derived from employee travel.[8]

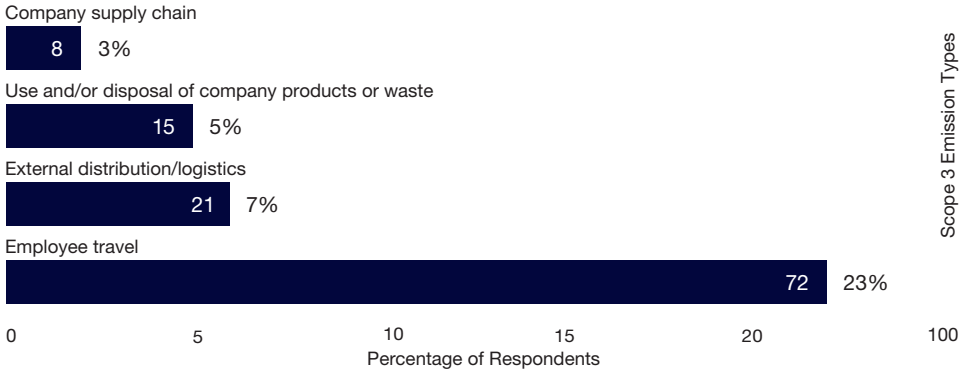
While the number of respondents specifically reporting on supply chain emissions was relatively low, this quantitative view does not show the full picture, as substantive work to address supply chain emissions is already underway at many companies. For example, while **Wal-Mart** did not report on its supply chain emissions, it did provide a detailed copy of the methodology it is using in its Supply Chain Pilot with CDP and noted:

"The Wal-Mart supply chain is large and diverse, ranging from very small companies to FORTUNE 50 corporations. We do not yet have an accurate assessment of our supply chain GHG footprint; however, during 2007 we executed a pilot project with the Carbon Disclosure Project to replicate the CDP methodology for our supply chain. This will allow our suppliers to submit their GHG emissions data to Wal-Mart including product level data. We intend to use this data to provide transparency and over the next two years we intend to develop supplier scorecards to evaluate the carbon footprint of suppliers and products."

Building upon the experience of the **Wal-Mart** pilot program, CDP recently spearheaded the global CDP Supply Chain Project, with dedicated account management in the U.S., to help enhance corporate understanding around supply chain emissions and to improve the depth of reporting. The project brings together sector leaders wishing to leverage the CDP system to measure and subsequently manage emissions from their extended supply chains.

Though the formal reporting in the area of supply chain emissions seems fairly nascent, companies are acknowledging its importance to their bottom lines. While they did not explicitly report supply chain emissions, several companies recognized the impact of climate

Fig. 11: Most Significant Disclosed Scope 3 Emissions



8 CDP6 respondents were asked to report on any and all categories of Scope 3 emissions for which they account. A total of 86 companies (27%) reported some form of Scope 3 emissions, with several companies reporting on more than one emission category. As a result, the sum of responses across the four categories of Scope 3 emissions does not total 86.

change on their supply chains, and described efforts to encourage — or even require — their supply chain partners to adopt more energy-efficient business practices. **Unisys**, for example, reported, "Unisys has implemented strong environmental requirements for our supply chain. These include: environmental reporting, pollution prevention, and product content restrictions."

The United Parcel Service, Inc. (UPS) noted that it can benefit from helping its customers make their own supply chains more efficient: "We are able to assist our customers as they evaluate their own supply chains in light of new regulations. They will be looking for ways to reduce carbon and we anticipate new products, technology innovation, and breakthrough business practices to emerge as the regulations switch on."

Sealed Air Corporation reported that climate-change-related events could disrupt its own just-in-time supply chain: "Since the Company does not typically purchase substantial quantities of raw materials in advance of production requirements, it potentially could be exposed to natural disaster risks, such as hurricanes, that may negatively impact the production or delivery capabilities of suppliers of primary raw materials."

Ford Motor Company does not disclose supply chain emissions, but is casting a sharper eye on the emissions policies of business partners along its supply chain:

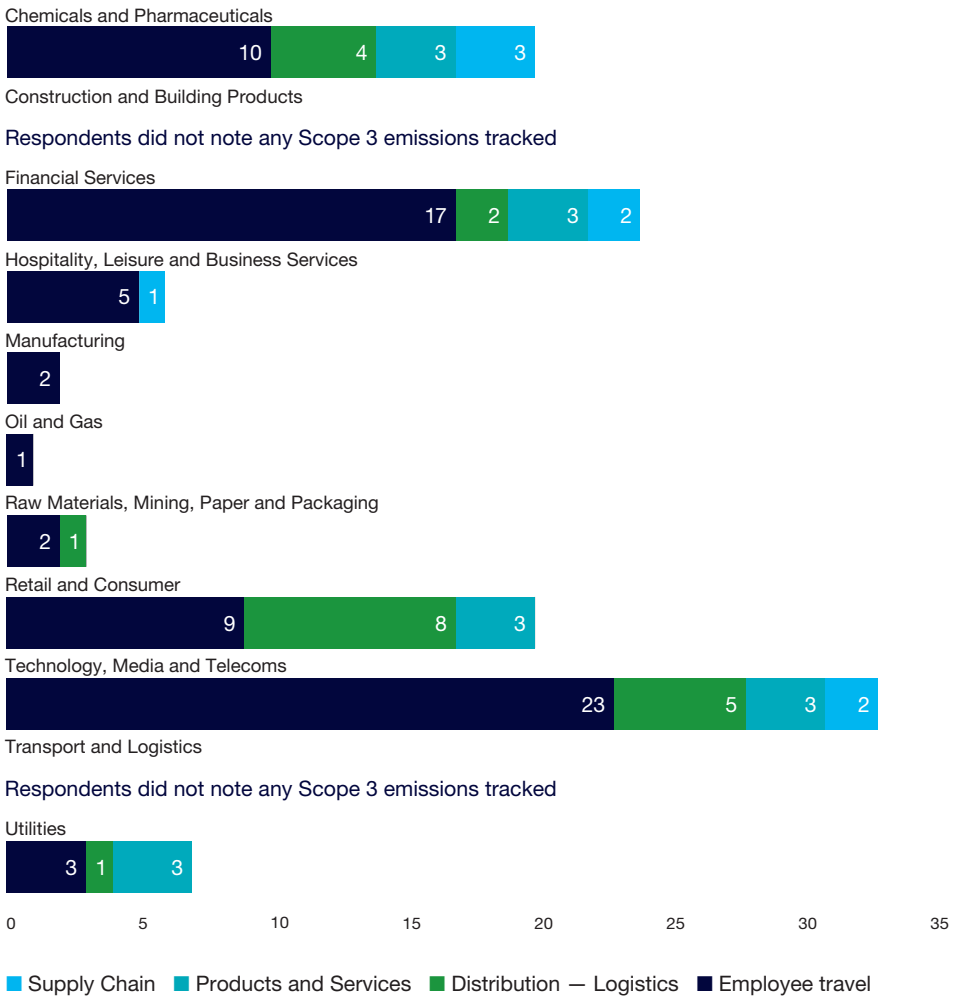
"Our efforts to encourage and, in some cases, require suppliers to implement robust environmental management systems will help them report their emissions inventories in the future. We also will seek out opportunities to partner with suppliers to improve the greenhouse gas emissions performance of our products. We are currently in the process of benchmarking other industries with large supply chain operations, in an attempt to include the best practices in procedures and metrics for our own supply chain."
Ford Motor Company

Brown-Forman Corporation, which also does not capture supply chain emissions, suggested that plans for doing so are afoot at the company and among others in the beverage industry:

"Emissions associated with the company's supply chain are not measured or known at this time. We anticipate that groups such as the Beverage Industry Environmental Roundtable will establish methodology for inventorying our industry's supply chain and that such emissions from Brown-Forman Corporation will be included in the future."
Brown-Forman Corporation

Though the formal reporting in the area of supply chain emissions seems fairly nascent, companies are acknowledging its importance to their bottom lines.

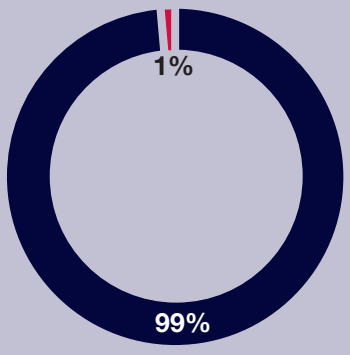
Fig. 12: Number of Companies Tracking Scope 3 Emissions by Industry



Assessing Greenhouse Gas Emissions along the Supply Chain

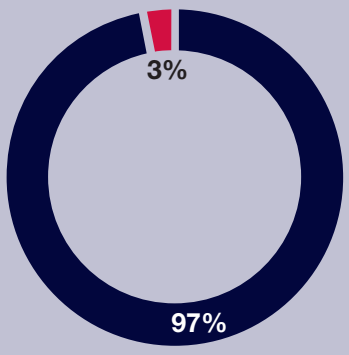
By Antonia Gawel, Energy & Climate, World Business Council on Sustainable Development (WBCSD), on behalf of the WRI/WBCSD GHG Protocol Initiative

Fig. 13: Views on Importance of Accounting for Supply Chain Emissions



Yes	81
No	1

Fig. 14: Views on Supply Chain Standards



Yes	69
No	2

An Evolving Climate Change Agenda

As governments face growing political complexity around the global challenge of climate change, businesses increasingly confront the practical complexity of assessing their complete profile of climate-related risks and identifying potential opportunities across their value chain.

Developing Practical Tools and Solutions

Since 1998, the WBCSD and the World Resources Institute (WRI) have worked in partnership with businesses, governments, and environmental groups around the world to build a new generation of credible and effective solutions to enable the implementation of climate change strategies. A simple premise guides our work: "You cannot manage what you cannot measure." This has led to the development of a series of standards and tools which enable the measurement of corporate and organizational GHG emissions. One of our primary outputs, the GHG Protocol Corporate Accounting and Reporting Standard, is now the most internationally recognized standard for accounting and reporting corporate and organizational GHG emissions.

However, as the complexity of climate change increases, so does the need for a more sophisticated approach to understanding the complete profile of impacts. Companies are increasingly moving beyond assessing the GHG impact of their own operations and toward a more comprehensive assessment of the GHG impacts along their entire value chains — in both the products they buy from suppliers and in the products they sell to customers.

This particular information need has become especially acute in light of increased outsourcing of manufacturing and other GHG-intensive operations. A broad assessment of the full climate impact of corporate activities has great potential to enable new GHG reductions throughout corporate supply chains worldwide, including in key developing countries where suppliers manufacture for multinational customers.

While the current GHG Protocol provides clear methodology for Scope 1 and Scope 2 emissions, it does not yet provide clear and concise guidance on how to consider Scope 3 (indirect, including supply chain) emissions.

The Importance of Supply Chain Emissions

A survey conducted in November 2007 by the WBCSD and WRI clearly identified the measurement of supply chain related GHG emissions as an important business issue (see Figures 13 and 14). It further concluded that there is a need for a comprehensive and internationally accepted methodology.

Do you perceive the accounting of supply chain or life cycle greenhouse gas emissions to be an important business issue?

The challenge will be to develop an approach that meets a diversity of objectives and needs for businesses, governments, and society in measuring supply chain emissions (see Figure 15).

Despite the challenge, finding a solution is essential. This will only be achieved by the development of robust and practical methods to enable businesses and organizations around the world to systematically assess their full range of impacts. While some multinational businesses are well on their way to conducting internal analyses, the vast majority are only now beginning to understand the implications of managing their supply chains.

Through the CDP Supply Chain Project, companies began to engage with suppliers in an attempt to gauge supplier climate risk and management strategies. Evidence from this exercise shows that suppliers have a long way to go in both understanding and managing such risk, but that the awareness related to climate change impacts is improving.

Finding Solutions

Managing this complexity will not be simple. It will take time and effort for suppliers across industries to develop the capacity to provide sufficient data and eventually develop climate management strategies. Both companies and governments must remain focused and move forward with practical solutions. In launching our multi-stakeholder process to develop a new set of international standards for the quantification of supply chain GHG-related impacts, the WBCSD and WRI hope to provide one such solution to the international community.

For more information on this initiative, please visit: www.ghgprotocol.org/standards/product-and-supply-chain-standard

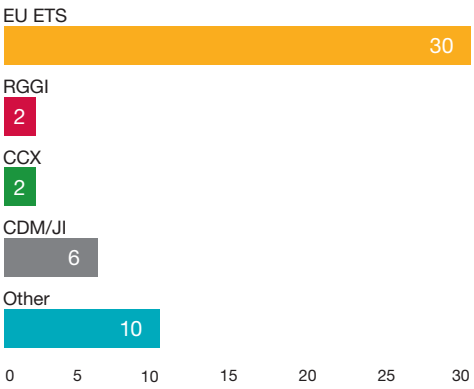
Companies are increasingly moving beyond assessing the GHG impact of their own operations and toward a more comprehensive assessment of the GHG impacts along their entire value chains.

Figure 15: Motivators of Supply Chain Emissions Awareness

For Companies	For Consumers	For Regulators and Policymakers
Internal: • Internal management/ decision-making/ planning • Risk management • Benchmarking • Performance tracking • Product development/ promotion • Engage/pressure suppliers • Guide procurement decisions • Capture Scope 3 emissions	• Develop a greater understanding of GHG implications of purchasing decisions • Differentiate “responsible” companies • Transparency through product labeling	• Assess the proportion of national emissions that are a result of exported manufacturing and supply chain “in-sourcing” and where responsibility for reducing emissions may lie • May inform policies on embedded emissions in traded products • Reflect global changes in industrial manufacturing
External: • External disclosure/ communication • Achieve carbon neutrality • Product labeling • Marketing		

Many S&P 500 respondents may be market-makers in emissions trading schemes.

Fig. 16: Number of Companies Participating in Various Emissions Trading Schemes



Emissions Trading

While some S&P 500 respondents with facilities in the European Union are already taking part in GHG emissions trading under the EU ETS, and others may be engaged in trading in the Chicago Climate Exchange (CCX), the first mandatory emissions trading scheme targeting utilities will commence in September 2008, the launch month for a series of quarterly CO_2 emission permits auctions in the U.S. under the Regional Greenhouse Gas Initiative (RGGI) (see Sidebar, "The State of Emissions Trading Programs in the U.S.").

Under this cap-and-trade auction, power plants in 10 of RGGI's participating states (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New Hampshire, New York, Rhode Island, and Vermont) will be able to bid on "allowances" that will enable them to emit negotiated levels of CO_2 gasses, and power plant owners and operators will also be permitted to buy and sell these allowances. This program is modeled after the successful Acid Rain cap-and-trade program, a similar market-driven cap-and-trade system that has been in effect since 1995, aimed at reducing emissions of two other GHGs — nitrogen oxides (NOx) and sulphur dioxide (SO_2) — from coal-fired utility plants. According to the EPA's Acid Rain and Related Programs: 2006 Progress Report, in its first 12 years the Acid Rain program has contributed to SO_2 cuts of more than 6.3 million tons and NOx of 3.3 million tons from 1990 levels.

This significant development, RGGI's moving companies from voluntary emissions trading schemes to a mandatory trading scheme, albeit for a small subset of regulated utilities, is significant as it will be the first regional carbon regulation to be implemented in the United States. Furthermore, it will allow companies to move from forecasting carbon costs based on shadow pricing to forecasting and decision-making based on real pricing. As noted by a number of CDP S&P 500 respondents, one of the major risks around such a market shift is the uncertainty related to future U.S. federal regulations and carbon pricing in a carbon-constrained economy.

Thirty companies (10%) participating in emissions trading schemes indicated that they were involved with the EU ETS (see Figure 16).

The following response excerpts illustrate the varied experiences of U.S. companies participating in the EU ETS:

"PSEG has equity ownership in 3 plants located in Italy, which are subject to the EU Emissions Trading Scheme. These 3 plants utilize biomass as a fuel source, which sell their power at a premium because they are classified as renewable sources."
Public Service Enterprise Group Incorporated

"Only the North Sea Region is subject to the EU ETS and is currently active in emission trading. As previously described, Apache has reduced CO_2 emissions from the Forties Field and accumulated several hundred thousand tonnes of surplus emissions credits that could be sold within the EU ETS. Apache actively monitors the emissions trading market to remain aware of pricing trends and opportunities for these credits. Apache also evaluates our own emission requirements to ensure the most profitable deployment of excess emission credits while continuing to ensure sufficient credits are available to facilitate Company operations. Apache has not purchased or sold allowances under the EU ETS."
Apache Corporation

"Citi's strategy in the EU ETS is to act as a market intermediary for our clients, and to develop products so that our clients can manage risk and extract value. We also trade our own proprietary positions on the ETS."
Citigroup

The State of Emissions Trading Programs in the U.S.

RGGI is the first U.S. regional trading program implemented, but there are at least three other significant regional trading programs in place:

The Chicago Climate Exchange (CCX) was launched in 2003 and is the world's first (and North America's only) active voluntary, legally-binding, integrated trading system to reduce emissions of all six major GHGs with offset projects worldwide. CCX Members are leaders in GHG management and represent all sectors of the global economy, as well as public sector innovators. CCX emitting Members make a voluntary but legally-binding commitment to meet annual GHG emission reduction targets.

The Western Climate Initiative (WCI), launched in February 2007, now includes the U.S. states of Arizona, California, Montana, New Mexico, Oregon, Utah and Washington and the Canadian provinces of British Columbia, Manitoba, Ontario and Quebec. Its aim is to develop regional strategies to address climate change.

While the list of participants is significant, the list of observers bodes well for a future expansion of the program across North America as this list includes: Alaska, Colorado, Idaho, Kansas, Nevada and Wyoming in the U.S.; Saskatchewan in Canada; and Baja California, Chihuahua, Coahuila, Nuevo Leon, Sonora, and Tamaulipas in Mexico. WCI is identifying, evaluating and implementing collective and cooperative ways to reduce greenhouse gases in the region, including developing proposals for a multi-sector cap-and-trading system, expansion of California's so-called "Pavley law" — precedent-setting legislation to reduce global warming pollution from motor vehicles — to other states in the region, and issuing specific recommendations on development of carbon regulations related to large stationary sources.

The Midwestern Regional Greenhouse Gas Reduction Accord, led by the Midwest Governors Association (MGA) and launched in November 2007, now includes the U.S. states of Illinois, Iowa, Kansas, Michigan, Minnesota and Wisconsin and the Canadian province of Manitoba. Observers include the U.S. states of Indiana, Ohio and South Dakota. The Midwest Regional efforts are intended to develop design conclusions likely to precede and inform U.S. federal GHG emissions rules, principally in four areas, including:

- Establishing greenhouse gas reduction targets and timeframes consistent with MGA member states' targets;
- Developing a market-based and multi-sector cap-and-trade mechanism to help achieve those reduction targets;
- Establishing a system to enable tracking, management and crediting for entities that reduce greenhouse gas emissions; and
- Developing and implementing additional steps as needed to achieve the reduction targets, such as a low-carbon fuel standards and regional incentives and funding mechanisms.

Why are these regional and voluntary emissions trading systems so important to the S&P 500 companies? Companies are most interested in making decisions based on a high level of certainty and there is still a high degree of uncertainty with respect to U.S. federal GHG emissions trading or regulations. Uncertainty is driven by the upcoming U.S. presidential elections in November 2008 and the U.S. EPA's recent decision to expand the period for public comment on proposed carbon emissions regulations following the April 2007 U.S. Supreme Court rulings on whether climate change endangers public health (which would give the U.S. EPA authority to regulate carbon emissions under the U.S.Clean Air Act), until after President Bush leaves office in January 2009. Uncertainty is also driven by a continued concern over a "patchwork" of more than 50 state or regional GHG emissions reduction schemes.

This uncertainty led to the formation of the United States Climate Action Partnership (USCAP), a group of businesses and environmental organizations that came together to call on the U.S. federal government to quickly enact strong national legislation to require significant GHG emissions reductions (see www.us-cap.org/index.asp). USCAP issued a landmark set of principles and recommendations to underscore the urgent need for a policy framework on climate change. It is important to realize that the 30-plus organizations supporting USCAP are not only concerned about GHG emissions but, consistent with CDP S&P 500 responses, view climate change opportunities as well. USCAP notes, "In our view, the climate change challenge will create more economic opportunities than risk for the U.S. economy".[9]

While this discussion has focused mostly on companies potentially subject to GHG emissions reductions and potentially buying or selling emissions credits as a result of GHG emission caps, it is important to note that many S&P 500 respondents may be market-makers in emissions trading schemes. Companies in these industries are more fully described in the Industry Snapshots (Section 7), including a number of companies in the Financial Services industry.

9 http://www.us-cap.org/about/index.asp

Will Consistency in Reporting and Disclosure Drive Opportunity?

By Kathy Nieland, Partner, U.S. Climate Change and Sustainability, PricewaterhouseCoopers, and Fred L. Cohen, Retired Partner and Special Advisor to PricewaterhouseCoopers on Climate Change and Sustainability

The very fact that 64% of S&P 500 companies are voluntarily responding to the CDP is a clear indication that the market now takes this issue seriously.

Many companies face the challenge of reporting non-financial information to a broad set of stakeholders, among them investors, policymakers, and regulators. But often, company processes and controls around gathering the information are weak and the guidelines for reporting such information are inconsistently applied. Climate change is no exception. As time passes, we expect the rigor to increase around climate change reporting in the face of rising expectations of investors and other stakeholders — including the signatories of the Carbon Disclosure Project (CDP).

As several studies suggest, a "business as usual" response to climate change will result in a more than doubling of today's carbon emissions by the year 2050.[10] The approach demonstrated by CDP has helped more than 1,550 organizations to understand their inherent climate-related risks, and find new, more energy-efficient ways of doing business.[11] Indeed, the very fact that 64% of S&P 500 companies are voluntarily responding to the CDP is a clear indication that the market now takes this issue seriously.

Organizations like the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI), which operate by the simple principle "You cannot manage what you cannot measure," have also significantly advanced the reporting agenda. Their work in establishing the voluntary greenhouse gas (GHG) protocol, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, has prompted many public organizations down a path of more fully understanding their environmental impact. By providing a baseline for measurement and reporting, the protocol has given companies the opportunity to better understand their emerging operational, financial, and regulatory risks. This year's S&P 500 disclosures reflect this awareness: 81% of total respondents say climate change represents risks to their business and 71% say it represents opportunities.

Standard Reporting Provides the Best Measure of Progress

Despite these developments, many organizations are only beginning to understand the business implications of climate change, and we see clues to this in the level of reporting they provide. Some companies only selectively use voluntary reporting frameworks, others employ proprietary approaches to reporting, and some do not report at all. Roughly one-third of CDP6 respondents have their GHG emissions data audited or verified. Taking into account that not all companies report to CDP6, the overall share of companies that verify this information is likely much lower.

Moreover, measuring GHG emissions is just a starting point for companies that wish to provide an enterprise-wide snapshot of climate-related opportunities and risks. Investors and other stakeholders often want to know how public companies are developing short and longer-term strategies to pursue opportunities and mitigate a wide range of risks related to climate change, including physical, regulatory, financial, operational, and in some cases legal.

10 PricewaterhouseCoopers, The World in 2050: Can Rapid Global Growth Be Reconciled with a Low-Carbon Economy? (July 2008).

11 Over 1,550 of the world's largest publicly owned companies reported via CDP in 2008.

Today, incomplete, inconsistent, or even nonexistent disclosure from some companies on how they are responding to climate change may not significantly impact most assessments of corporate value. Over the longer term, however, as potential regulations are passed to cap or tax GHG emissions, and competitive responses to climate change become more sophisticated, it's reasonable to expect the situation will change. Stakeholders are beginning to look at the longer-range plans of companies in anticipation of what is to come.

Today, there are more urgent needs at hand for standardization in measurement and reporting — the need to understand global performance and comparison towards carbon emissions reduction goals. If federal policymakers are expected to identify the correct levers that balance reduction efforts with the need for economic stability and growth, set reduction goals, and assess progress towards those goals, the methodology, terminology, and measures are all critical.

What This Means for Business

As this year's CDP results indicate, more and more companies are working to mainstream climate change into their enterprise-wide risk management strategies. This clarity helps "hardwire" the risks and opportunities related to climate change into management-level decision-making. As these efforts begin to change the competitive landscape, expectations about what companies should be required to report are also likely to increase. How these expectations are met requires a new look at known challenges with non-financial reporting around climate change, including:

- What should be required under a common reporting framework? And which guidelines and standards should be tailored to a particular industry or sector?
- What is the appropriate balance between financial and non-financial information when reporting corporate performance? What does an integrated and focused reporting model look like?
- If a company takes a sustainable approach to climate change, how can this approach be linked to short or long-term financial success?

Can these challenges be met? We think so. But to meet them, companies, investors, and policymakers need to continue working to define what they need from each other to raise the standard of reporting. If they are successful, best practice will become standard practice and will begin to open new doors for innovation and opportunity.

It is important to note that CDP provides a flexible mechanism allowing for institutional investors and responding companies to continually (annually) refine and improve the CDP information requests, thus enabling CDP to pose questions that are truly important to institutional investors and other key stakeholders.

CDP is working with other leading business and environmental organizations through the Climate Disclosure Standards Board (CDSB) to encourage reporting of climate change risks and opportunities, carbon footprints, and carbon reduction strategies and their implications for shareholder value in companies' annual reports.

5

Making It Happen: Implementing Governance and Inspiring Change

Responding to growing stakeholder, investor, consumer, and even employee expectations, companies are improving their communication around climate change risks and opportunities, carbon accounting, performance targets and governance.

Public Disclosure

This year, CDP asked companies whether they publish information (outside of their CDP responses) about the risks and opportunities climate change presents to their organizations and details of their GHG emissions and reduction targets. Companies were also asked what mechanisms they use to communicate this information.

The majority of respondents (191, or 61%) reported that they publish climate change risks and opportunities voluntarily through communications such as corporate social responsibility reports, followed by formal communications with shareholders and external parties. In the U.S., the least common form of communication reported by 107 respondents (34%) was publishing such information in the company's annual report or statutory filings. Most companies reported that when they do publish climate change related information, it is often posted on their company website. It may be that disclosing such information in company literature bears less risk and accountability than reporting the same information to the SEC. If this is the case for some companies, it suggests they might work toward enhancing their data collection and verification processes in order to report such non-financial information in a manner consistent with the financial information presented in the annual report.

DuPont, which reported climate change information in its 2007 annual report, commented that, "Voluntary emissions reductions implemented by DuPont and other companies are valuable but alone will not be sufficient to effectively address a problem of this scale."

CDP believes that if the SEC adopts some of the disclosure-related proposals currently under consideration, essentially increasing the requirements for disclosure related to climate change and GHG emissions, these reported communication trends may change.

Thorough and consistent disclosure of all climate change opportunities, risks and other related issues is not just about reputational benefits. Strong stewardship of a climate change policy and executing on goals — along with prompt and transparent disclosure of climate change risks in the annual report and SEC filings — sends a strong message to the investment community and helps investors assess risks in their portfolio or client base.

Juniper Networks noted in its response the link between sustainability and stock prices: *"Wall Street currently assesses companies with proactive environmental and social responsibility stances — and will increase focus on this as more regulations come into play and it becomes a greater financial risk. Companies perceived as part of the solution will be rewarded in the stock market versus those perceived to be in risky positions or passive in addressing the challenges."*

In the absence of disclosure through statutory reporting, CDP — which makes public all answers from respondents where permission is granted — has become a powerful repository of corporate climate-related information, not only for the investment community, but also for companies looking to learn about the climate change initiatives, successes and shortcomings of their industry peers. With response rates and the quality and depth of answers rising, the CDP database will continue to serve the investor, business, and public policy communities as a key collection of business intelligence on climate change matters, promoting the open, equitable, and convergent sharing of information.

Engaging in Policy Discussions

Unsurprisingly, companies in carbon-intensive industries are the most active in policy discussions around climate change including Utilities, Raw Materials, Mining, Paper and Packaging and Oil and Gas. In total, 172 respondents (55%) participate in some level of policy discussions (see Figure 17).

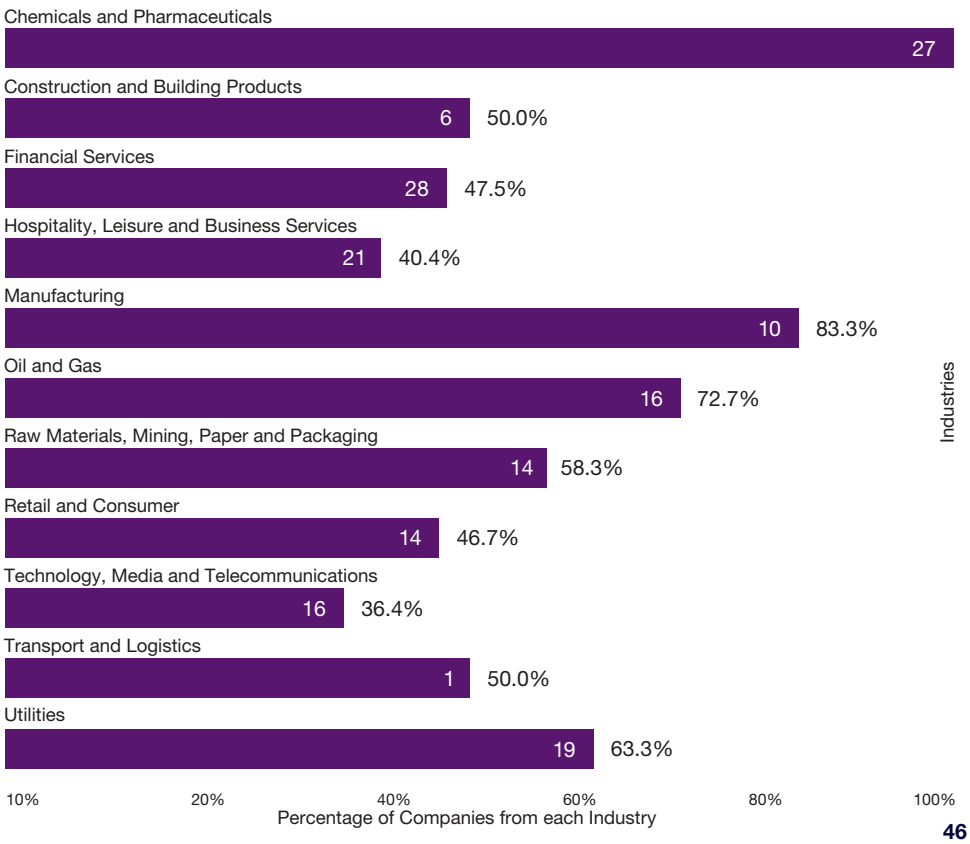
Incentivizing Climate Change

Building climate change progress into incentive programs is another strong sign that companies are starting to consider climate change a business priority. Of the 258 companies (82%) disclosing whether or not they assess or provide incentive mechanisms for individual management of climate change issues (including attainment of GHG targets), 93 companies (36%) reported having mechanisms in place to reward climate change progress, while 165 companies (64%) reported they did not (see Figure 18). The remaining 56 responding companies (18%) did not answer the question.

"A fundamental opportunity related to current and anticipated requirements on climate change is the advantage to the business community of greater certainty regarding the future regulatory path..."

E.I. du Pont de Nemours & Company

Fig. 17: Companies Participating in Public Policy Discussion



"Simon Property Group's key personnel involved in property management have incentive compensation plans that include goals related to energy performance."
Simon Property Group

"Energy reduction goals are set in advance of each fiscal year and meeting those goals is now a component of the bonus structure for all Store Divisions."
Kroger

"Three of the Company's senior executives have specific performance objectives related to sustainability initiatives. One of those objectives for 2008 is the establishment of GHG reduction targets."
Dean Foods

Dedicated Governance
Climate change issues are rising in importance, requiring greater leadership and oversight. This year, 247 respondents (79%) reported having a board committee or other executive body charged with overall responsibility for climate change.

Thirty-five companies (11%) reported they had no such body, and 32 (10%) did not answer the question (see Figure 19).

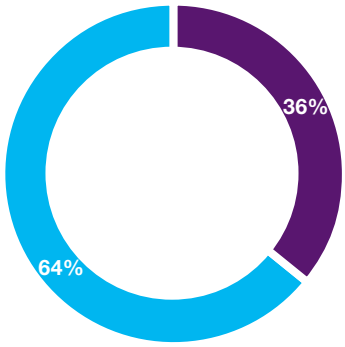
Some companies detailed their governing structures responsible for climate change, many describing a governing body comprised of non-executives. The fact that companies are enlisting the contributions of employees from across the organization indicates that these companies appreciate the business value of capturing a diversity of views on climate change, rather than just the views of top executives.

"No executive body has overall responsibility for climate change. The company's Green team, the EH&S Assurance group and the Energy Use Reduction team have overall responsibility for managing climate change issues and how they affect LSI operations and products."
LSI Corp.

"No executive body has overall responsibility for climate change. Sustainability is a core value woven across Google in various departments, from Green Business Operations, which manages the design and powering of our offices, to data center teams focused on efficiency, to the policy advocates of Google.org, even to individual office 'green teams.'"
Google Inc.

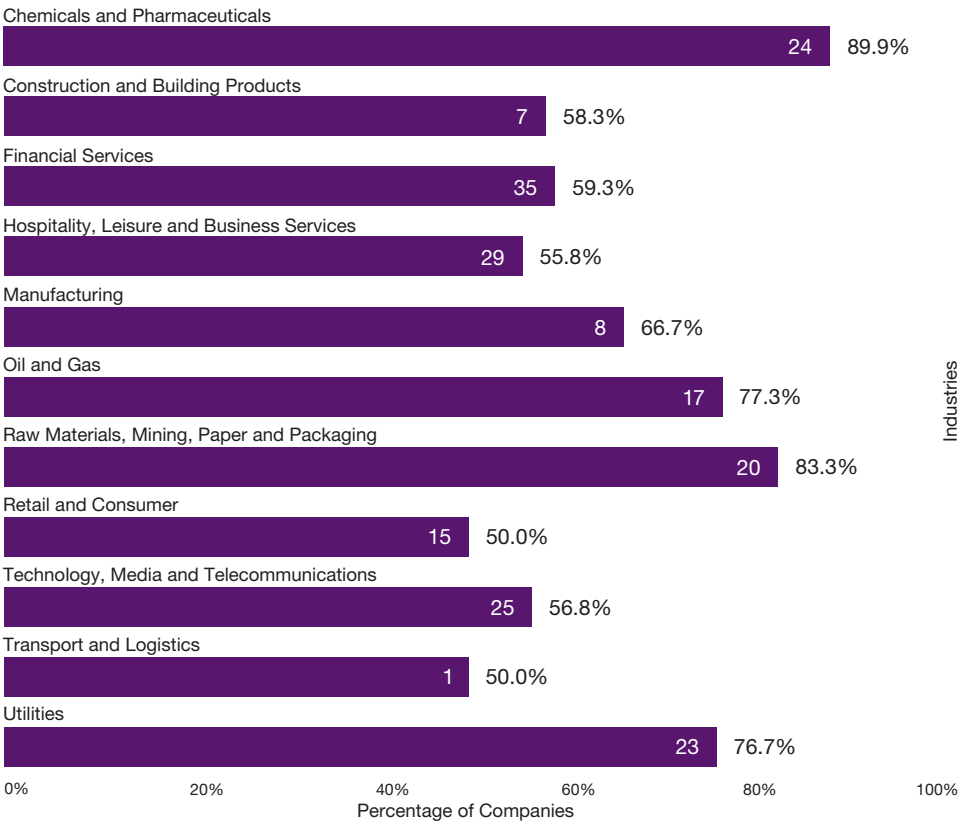
"Climate change strategy is managed by...a team of cross-functional Wal-Mart associates advised by leading NGOs, academics, and suppliers... Through Sustainable Value Networks (SVNs), we are breaking down internal silos, tapping hidden potential in approximately 1.9 million Associates and 60,000 suppliers, building new bridges to non-governmental organizations (NGOs) as well as government entities, and discovering a deeper meaning into how we can better serve our customers and communities."
Wal-Mart

Fig. 18: Are Companies Rewarding Climate Change Progress?



Yes	93
No	165
Respondents to Question	258

Fig. 19: Respondents with Board of Executive-Level with Overall Responsibility for Climate Change



What's in Your Portfolio? SEC Action Is Needed to Improve Corporate Disclosure of Climate Change Risks

By Mindy S. Lubber, President, Ceres

A popular commercial asks, "Do you know what's in your wallet?" A similar question should be asked of investors: Do you know what risks are lurking in your portfolio?

A growing community of institutional investors, including key members of the Investor Network on Climate Risk (INCR), are asking that question, and their answer is global climate change. These investors are not just asking Congress, NGOs, consultants, and their asset managers for help, but also the Securities and Exchange Commission (SEC).

INCR members — led by state treasurers, comptrollers, and the nation's largest public pension funds — have pushed for better corporate climate disclosure in SEC filings for five years. Last fall, 20 investors filed a landmark petition asking the SEC to issue guidance on what material issues related to climate change should be disclosed by companies.

So far, 40 additional institutional investors representing trillions of dollars have supported the petition. It's also been endorsed by U.S. Senate Banking Committee Chairman Senator Chris Dodd, whose committee oversees the SEC. Because climate change poses profound financial risks and opportunities to companies in many sectors, a strong SEC response is needed.

Two dozen of America's leading companies are also pushing the SEC, including **DuPont**, **Alcoa**, and **Sun Microsystems**. They joined an effort in 2007 to urge both a national policy on climate change that includes dramatic reductions in global warming pollution and SEC action to require greater disclosure by U.S. companies of their climate risks.

Over 60% of S&P 500 companies already voluntarily disclose their climate risks and opportunities using CDP. Many of these companies also use the Global Reporting Initiative (GRI) and report climate risks in their securities filings. This high rate of disclosure offers proof that voluntary climate disclosure is not burdensome for companies. Similarly, SEC guidance on climate risk disclosure would not be burdensome for registrants.

What should the SEC do? SEC guidelines already require discussion of "specific known trends, events or uncertainties that are reasonably likely to have a material effect on a company's financial condition or operating performance." The physical impacts from climate change and regulatory efforts to reduce greenhouse gas emissions are such "trends" and "uncertainties" for many publicly traded companies. So SEC guidance that recognizes climate change as a material risk to the companies it regulates — and strengthens disclosure requirements by requiring companies to provide the information investors need to assess risks — is needed as soon as possible.

Without mandatory disclosure, investors are left unprotected in three important ways. First, investors do not get the information they need from every publicly traded corporation because some companies do not respond to voluntary requests for climate risk disclosure. Second, without mandatory disclosure (and mandatory U.S. limits to reduce CO_2 emissions), companies do not respond fast enough to help avoid dangerous changes to our climate: Each company that forgoes disclosure is missing an important opportunity to thoroughly assess and reduce their climate risk. Third, uneven disclosure prevents investors from fully understanding how companies are linking climate-related risks and opportunities to short- and long-term business strategies.

This year, INCR members went further by asking the SEC to make deeper, structural changes that go beyond climate disclosure. In an Action Plan released at the United Nations in February, they called on the SEC "to develop expertise on climate change risks, as well as other environmental and social issues that pose material financial risks to corporations and investors." They realize that climate change — along with other environmental and social issues — poses serious financial risks to their portfolios, and that SEC action is needed to develop much-needed expertise in these risks.

Investor interest in the financial risks of climate change is at an unprecedented level. To assess risks, investors need both voluntary and mandatory disclosure of the physical, regulatory, and legal risks of climate change. Voluntary disclosure is critical for improving investor-corporate cooperation to address climate risk, which is why Ceres is pleased to be a signatory to CDP for the past six years. This year, 321 companies in the S&P 500 answered the CDP questionnaire, which shows that disclosure is straightforward to accomplish and benefits companies and their investors. Mandatory disclosure in SEC filings is needed soon to ensure that all companies assess their risks and provide useful information for investors.

Mindy S. Lubber is president of Ceres, a leading North American coalition of investors, environmental groups and other public interest groups working with companies to address sustainability challenges such as climate change. Ceres also directs the $5 trillion Investor Network on Climate Risk. For more information, visit www.ceres.org or www.incr.com

6

Thriving in Uncertain Times: Sizing Up Risk and Opportunity in a Carbon-Constrained Economy

This year's respondents proved that climate-change-related risks are factoring into business strategy discussions and corporate agendas. Increasingly, so are the emerging opportunities climate change can present.

Uncertainty: The Pervasive Risk

"The potential impacts of climate change...could result in far-reaching negative impacts on economies, businesses and societies worldwide...The risk of increased frequency or severity of catastrophic events also could impact AIG's facilities and operations worldwide."
American International Group (AIG)

Climate change risks cover a broad, "personalized" and often highly granular spectrum in this year's responses to CDP. Concerns were raised over higher energy costs stemming from a potentially imminent federal emissions regulation, physical risks from severe weather patterns, and compliance costs around energy efficiency and emissions. The extended nature of today's supply chains has increased exposure to such risks across all industries. Think about a gallon of milk: A drought in one part of the country yields reduced milk volume from cows, which puts a squeeze on the dairy farmer, while the manufacturer of the petroleum-based packaging used to contain the milk is also under pressure and faces increased production risk as well. The depth of the risks described by reporting companies reveals how embedded climate change and carbon risks have become in today's economy.

Of all respondents, 254 (81%) reported having exposure to either direct or indirect business risks from a changing climate. Companies also articulated worries about losing business to those in parts of the world with less stringent or non-existent GHG emissions rules, thereby shifting both business and emissions from the U.S. to markets abroad. Industries with the highest percentages of companies viewing climate change as a risk were mostly carbon-intensive industries. For example, 20 Oil and Gas companies (91% of responding Oil and Gas

companies) and 11 raw materials, mining, paper and packaging companies (92% of companies responding from those industries) reported viewing climate change as a risk.

It is probably too early to assess the impact of the recently established Carbon Principles — a set of guidelines for Financial Services institutions and lenders to U.S. power companies that address investor concerns around carbon risk. The Principles were spearheaded by **Citigroup**, **JP Morgan Chase & Co.** and **Morgan Stanley & Co.** While companies did not specifically address the Principles in their responses this year, utilities are already anticipating the possible challenges the Principles may impose on obtaining financing for coal-fired power stations.

This pervasive sense of uncertainty among U.S. power companies was clearly articulated by **American Electric Power**:

"AEP is one of the largest greenhouse gas emitters in the Western Hemisphere. Our sustainability and financial stability, and the economic well-being of our service territory, are at risk if we are not able to prosper with the proposed passage of a U.S. climate policy."
American Electric Power

Companies across industries agreed that uncertainty surrounding the future effects of climate change and/or carbon regulations was, in itself, a risk. That uncertainty, according to some companies, has created a barrier to making key strategic decisions in areas such as research and development and emissions mitigation planning. Indeed, one potent message from the respondents' comments on risk emerged: The sooner companies gain greater certainty about what a nationally regulated carbon economy means for them, the sooner they can plan for it.

The Specter of Rising Energy Costs: How High and When?

An overarching risk highlighted by many companies centered on higher energy prices they expect will be ushered in by GHG regulations and the potential additional costs of emission credits and add-on efficiency compliance. This is exacerbating the impact of rising energy costs, with gasoline reaching national averages of US$4.11 per gallon and US$147 per barrel.[12]

Companies in carbon-intensive industries voiced particular concern over higher energy prices and their negative impacts:

"If GM is not able to comply with specific new fuel economy requirements...then we could be subject to sizeable civil penalties or have to restrict product offerings drastically to remain in compliance. In turn, any such actions could have substantial adverse impacts on GM operations, including plant closings, reduced employment, and loss of sales revenue."
General Motors Corporation

"Higher energy costs for Raytheon would increase Raytheon's production costs and decrease cost competitiveness in the global marketplace."
Raytheon

"Future limitations to GHG emissions could result in negative impacts to our manufacturing operations by limiting our ability to maintain or increase production."
Northrop Grumman Corp.

Dow Chemical cited its already high energy costs ($25 billion in spending on energy and hydrocarbon feedstocks in 2007) and reported that it could "potentially face increased compliance costs from purchasing large quantities of expensive emissions credits, from implementing emissions control technology or from upgrading manufacturing facilities to meet standards."

The sooner companies gain greater certainty about what a nationally regulated carbon economy means for them, the sooner they can plan for it.

12 At time of writing.

Twenty-three responding Utilities companies (85%) and 17 Oil and Gas companies (77%) reported seeing regulatory risk associated with climate change.

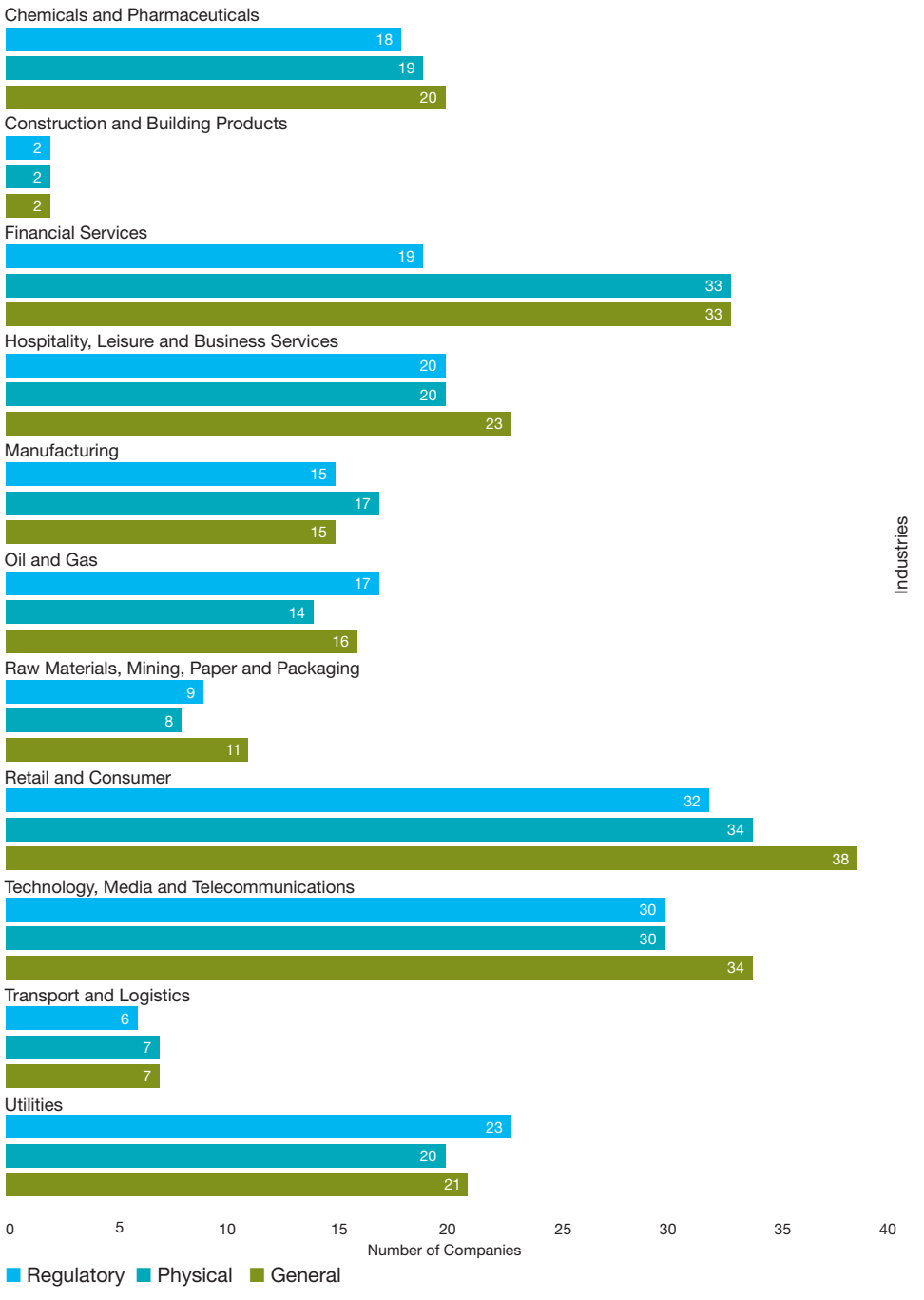
Forward-thinking companies are increasingly integrating climate change risks into their enterprise risk management (ERM) programs.

Generators of indirect (Scope 2) emissions, such as some IT firms, noted the risk of higher energy costs as well. **Electronic Data Systems**, for instance, stated that the significant amounts of electricity it purchases may leave it at risk if eventual emissions legislation regulates indirect emissions, or if electricity producers are permitted to pass on emissions costs to customers.

Climate Change Meets Enterprise Risk Management

Overwhelmingly, responding companies across industries expressed concern over the general, regulatory, and physical risks associated with climate change. Responding companies in carbon-intensive industries saw greater regulatory risk associated with climate

Fig. 20: Industry Perceptions of Climate Change Risks



change: 23 responding Utilities companies (85%) and 17 oil and gas companies (77%) reported seeing regulatory risk associated with climate change.

More telling is the level at which companies in non-carbon-intensive industries are identifying and disclosing climate change related risks. Companies across industry sectors — both carbon-intensive and non-intensive — are recognizing the physical risks tied to climate change in roughly equal proportion. 33 responding Financial Services companies (75%) disclosed physical risks associated with climate change, along with 30 Retail and Consumer companies (62%) and 20 Hospitality, Leisure and Business Services companies (62%). The majority of companies responding across all industries identified general risks associated with climate change — ranging from 34 Technology, Media and Telecommunication companies (58%), to both of the responding Construction & Building Products companies (100%) (see Figure 20).

With this high level of awareness, it is unsurprising that forward-thinking companies are increasingly integrating climate change risks into their enterprise risk management (ERM) programs.

When asked how their company is exposed to physical risks related to climate change, 223 companies (71%) cited examples of exposure, 75 companies (24%) reported no examples of exposure and 16 companies (5%) did not provide an answer.

Becton, Dickinson and Co., for example, is tracking climate scenarios based on those identified by the Intergovernmental Panel on Climate Change (IPCC): "Because climate change events could increase the need for healthcare and medical devices we realize it will be important to be able to manufacture and distribute our products without interruption."

Praxair, Inc., too, includes an assessment of potential physical risks, including "extreme temperature and weather events and health pandemics or epidemics." **Cummins, Inc.** reported that its ERM group identifies risks that "may include enterprise risks related to global climate change."

The **William Wrigley Jr. Company** created three scenarios, also reflecting the IPCC scenarios, and noted, "Under the most drastic scenario, Wrigley could be significantly affected. Dramatic weather shifts could affect our global supply of raw materials and ingredients. It is also possible that under these dire circumstances, power supplies would be disrupted and this would affect our ability to produce our goods."

These risks are not only being tracked in ERM plans, but are also being managed actively. **Merck & Co.**, for example, identified severe weather in Puerto Rico as a significant risk to its production facilities there, and mitigated that risk by "hardening" the facility to storms.

Other industries are more directly exposed to adverse weather, such as the leisure industry. **Carnival Corporation**, for instance, noted that severe storms required rerouting of its ships, damaged and forced closure of ports, and led to guest dissatisfaction by causing inconvenience or forcing ships to alter their planned itineraries.

Indirect Exposure

Companies revealed ways in which climate events can have a ripple effect. Financial institutions and other businesses that serve the carbon-intensive industries see regulatory risks having an indirect but significant bottom-line effect on their businesses, potentially impacting their investment portfolios.

Though **Wells Fargo** reported that the diversification of its client base minimizes its own climate change risks, it did point out that it claimed "$50 million in provisions for charge-offs related to Hurricane Katrina."

BB&T reported that it considers climate change risk to its own operations as well as that of some of its clients: "Rising sea levels and more frequent severe weather events may adversely affect BB&T's corporate and retail locations." The company added that climate change "may also have negative impact on BB&T's clients in certain industries, such as insurance, agriculture, construction, energy and tourism."

Lenders and investors in capital-intense industries noted their clients' exposure to climate change. **Citigroup, Inc.,** for instance, observed that regulatory risks and rising energy rates could impact its revenues by adversely affecting its energy-intensive client industries, such as Manufacturing and Oil and Gas. "These clients will be the most directly impacted by climate change legislation in the United States as well as by global frameworks."

The Cost of Compliance

Apart from the effect of higher energy prices, some industries — especially heavy manufacturing — report they could be exposed to regulations that could require costly process and equipment changes.

United States Steel Corporation, which produces CO_2 emissions throughout the steelmaking process, asserts that regulating its emissions would render the steelmaking industry unviable: "Any policy or regulatory action that would suggest that U.S. Steel or any integrated steel producer reduce CO_2 emissions from these chemical reactions could not be implemented and allow the United States or any other country to maintain a viable steel industry."

Utility **Consolidated Edison** described the challenges of complying with New York State emission reductions targets set in 2007, and noted that the "cost to comply with legislation, regulations, or initiatives limiting the company's GHG emissions could be substantial."

Limited fresh water supplies resulting from changing climate patterns, and the business implications of limited water supplies, emerged as an increasing risk, with water shortage mitigation plans described by some respondents.

The current energy crisis and the geopolitical nature of the crisis has raised climate change and energy to the top of the political agenda and to the center of consumer consciousness.

Companies voiced concern that efficiency standard regulations affecting assets such as buildings and products could have an expansive impact. **Cisco Systems**, for example, reported that it could be affected by regulatory risks including "efficiency measures that impact new or existing buildings" and "the design or operation of network products."

Semiconductor manufacturers, too, cited the possible regulatory risk of regulating chemicals used in producing semiconductors, including perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and sulfur hexafluoride (SF6), all of which have a significantly higher Global Warming Potential (GWP) than CO_2. **Texas Instruments Incorporated** reported that such regulation could "potentially impact the world semiconductor manufacturing industry if no substitute materials are successfully developed."

Water and Risk

Limited fresh water supplies resulting from changing climate patterns, and the business implications of limited water supplies, emerged as an increasing risk, with water shortage mitigation plans described by some respondents.

DuPont noted the company's commitment to reducing water consumption by at least 30% by 2015 in global regions where water supply is limited, and to offsetting any increase over their target with water that is conserved, reused, or recycled. As access to water is important for agricultural-based companies, **H.J. Heinz Company** launched a program at its Chatsworth, California, facility to recapture steam condensate, saving 3.1 million gallons of water annually and cutting natural gas and electricity costs.

IBM also acknowledged risks associated with water shortage: "One potential consequence of global warming, the reduced availability of water, could impact IBM's operations... IBM's semiconductor manufacturing operations are the company's most water-intensive operations, but they already have strong conservation programs in place and are located in areas where water is plentiful."

Sea levels, too, have figured strongly in respondents' lists of climate change related physical risks. **Entergy Corporation** reported that its facilities are exposed to hurricanes and flooding in south Louisiana, where natural storm buffers such as islands and wetlands are eroding: "If we do not change our present course and rebuild this buffer zone, severe flooding will endanger all long-term investments in south Louisiana...The frequency of flooding along Louisiana's coastal zone has already caused some insurance companies to discontinue coverage and cease issuing policies."

Opportunities: Beyond Carbon

"The market-facing goals are aimed at capturing value in a carbon-constrained world by tying our business growth more directly to the development of products that have environmental benefits and help our customers increase their energy efficiency and/or reduce their greenhouse gas footprint."
DuPont

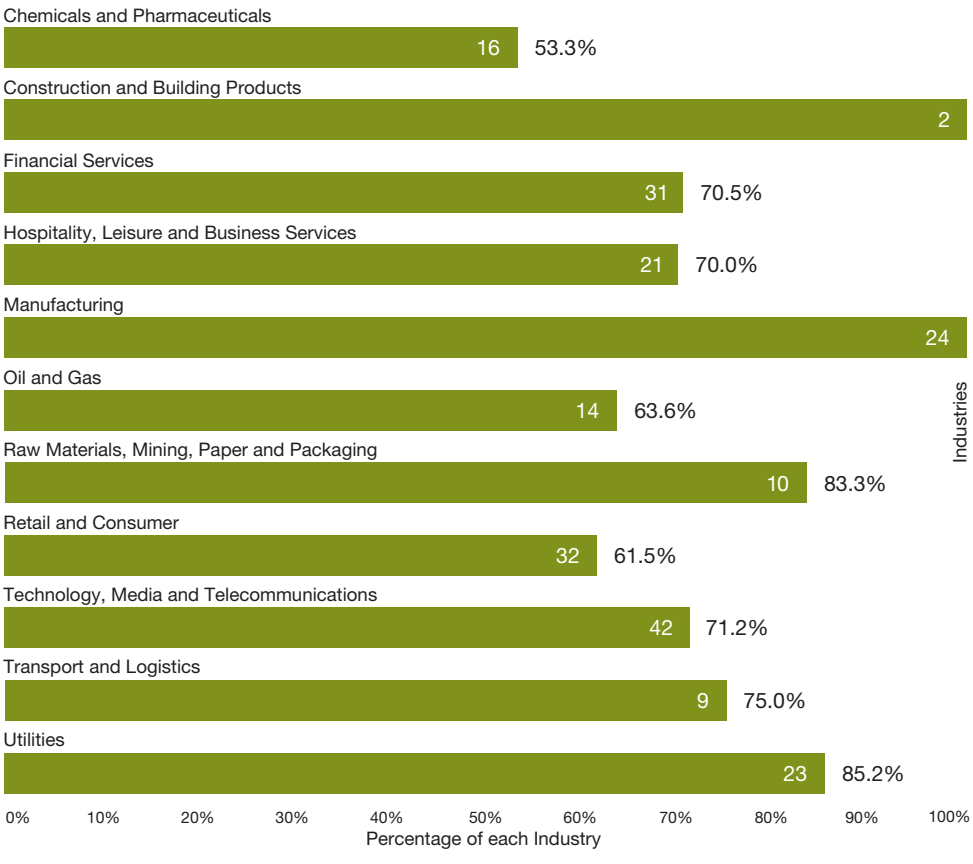
A veritable industry has grown around building the foundation of a carbon-constrained economy — from the development of new energy-storage batteries, to thin-film photovoltaic solar panels, to innovations in water filtration systems. Using low-carbon-intensive raw materials, for example, opens new opportunities, from making bridges with new composites instead of steel and cement, to packaging coffee cakes with non-plastic packaging.

The current energy crisis and the geopolitical nature of the crisis has raised climate change and energy to the top of the political agenda and to the center of consumer consciousness. As a result, the clean technology sector is booming. Opportunities created by a carbon-constrained economy are hinged upon far more than squeezing more out of a $5 gallon of gas. Respondents shared myriad new products and services, many of which are linked to energy cost savings. The great overall driver behind the growing crop of "green" products — felt not only by large companies, but also by the consumers they serve — is a growing urgency for environmental and economic sustainability. For companies, adapting their products and services to a carbon-constrained economy could mean not only increased profitability, but also the increased reputational capital of becoming a good corporate citizen.

The message came through strongly in this year's responses: Climate change presents a wealth of commercial opportunity, across industries. All 24 Manufacturing company respondents (100%) said they see climate change as a commercial opportunity. Even the Chemicals and Pharmaceuticals industry, which had the lowest share of respondents recognizing opportunity, saw a majority of respondents — 16 companies (53%) — finding commercial opportunity in climate change (see Figure 21).

The message came through strongly in this year's responses: Climate change presents a wealth of commercial opportunity, across industries. All 24 Manufacturing company respondents (100%) said they see climate change as a commercial opportunity.

Fig. 21: Respondents Who See Climate Change as a Commercial Opportunity



The Opportunity of a Low-Carbon Economy

By Jonathan Lash, President, World Resources Institute

Climate change and energy security are not just threats; they are opportunities. America has the potential to lead the next technological shift – one to a low-carbon economy – just as we have led every major technological shift in the last 100 years. We just need the political will to do it. Fortunately, signals from Wall Street, Main Street, State Houses, and the campaign trail all indicate that the U.S. is heading toward a future in which greenhouse gases (GHGs) are regulated by the federal government. It is only a matter of time before Congress passes policy restricting GHG emissions that is signed into law by the new president.

Visionary companies have recognized climate policy as a welcome step forward rather than a burden, and are developing strategies to take advantage of the significant economic opportunities climate policy will create. Through the U.S. Climate Action Partnership (USCAP), companies with combined revenues totaling nearly $2 trillion have joined environmental groups to call on the federal government to enact mandatory legislation to significantly reduce GHGs. These companies represent only a fraction of the companies eager to apply America's entrepreneurial spirit to the challenge of global warming.

In addition, growing support for federal climate policy has been recognized by governors living in unexpected places like Salt Lake City, Topeka, and Tallahassee. Collectively, states are contributing their own convincing stories of the feasibility of climate policies. Three regions of the United States — the Northeast, the Midwest, and the West — are developing multi-state regional emissions trading programs (the Regional Greenhouse Gas Initiative, or RGGI; the Midwest Greenhouse Gas Accord; and Western Climate Initiative, respectively). The most advanced, RGGI, will begin auctioning emissions allowances in September of this year, and the market will open in 2009. There are 23 states and a number of Canadian provinces currently participating, and nearly half of all U.S. citizens will be living in areas covered by one of these regional programs.

As the presidential campaigns of Senators McCain and Obama grapple to differentiate themselves on a host of issues, they are agreed in their support of mandatory GHG emission reductions in the form of "cap-and-trade" legislation. Not only do both candidates support enactment of emission caps (although at different levels of stringency), they both have made energy and global warming a central platform of their campaigns. Indeed, so strong is Senator McCain's commitment to this issue that he has bucked his party leadership for almost a decade to be a central sponsor of climate legislation. Though he has a shorter record on the issue, Senator Obama is promoting far more stringent measures in his climate platform. The candidates are eager to promote their proactive stances on climate change because the American public believes that our leaders should take steps to address the issue.[13] In repeated polls, high percentages of Americans report that the presidential candidates' positions on climate change will be important to them in their voting decisions.[14]

All these pressures will converge to create the political moment in which federal climate policy will be enacted. The question is not now one of "if." Rather, the question is only "how" it will be done. Although a summer vote on a cap-and-trade bill sponsored by Senators Joseph Lieberman (I-CT) and John Warner (R-VA) failed to achieve closure, the debate teed up issues and identified priorities for affected constituencies. These constituencies can be working to resolve many of these issues in advance of the next round of debate.

The good news is that investments in the carbon-constrained economy need not wait for overarching federal policy; indeed, some forward-looking companies are moving ahead at lightning speed. McKinsey has shown that many global warming abatement measures — especially energy efficiency — can be achieved with net negative costs. Venture capital flows to clean technology more than tripled from 2004 to 2006. The U.S. wind industry added 5244 megawatts of wind power in 2007, with an investment of over $9 billion.

There will inevitably be those who argue that climate policy will cost too much to the economy or be too complex to implement. These arguments will prove outdated when federal climate policy is ushered in, putting a price on climate pollution and spurring massive investment in new technology. We need our economy to be ready for these markets of tomorrow. The sooner we start, the more competitive we will remain.

13 BBC World News Service poll (September 2007).

14 CNN poll (May 2007); CBS News poll (October 2007).

The Climate Change Industry

Industries supporting clean energy and efficiency may stand to benefit considerably, with a carbon-constrained economy spurring demand for energy-saving products and services and offsetting regulatory risks within their businesses.

Most industries see both risk and opportunity — or, put another way, opportunity from risk. 20 respondents (83%) in the Manufacturing industry view their companies as exposed to climate change risks, yet 24 companies (100%) feel climate change presents them with commercial opportunities.

DuPont forecasts that it will double research and development spending by 2015 to capitalize on "Environmentally Smart Market Opportunities" and grow annual revenues by at least $2 billion from products that "create energy efficiency and/or significant greenhouse gas emissions reductions, which will have the effect of reducing at least 40 million tons of carbon dioxide emissions equivalents (CO_2-e)". It also reports that it expects to introduce at least a thousand new products or services that "help make people safer globally."

Johnson Controls, too, sees its business as a beneficiary of tighter climate change legislation, reporting that it "strongly supports regulations that will constrain carbon consumption, which will likely bolster the demand for our products and services, which include making buildings more energy efficient, manufacturing lighter vehicle interiors to enhance fuel efficiency and developing new types of batteries for hybrid vehicles."

"Our climate leadership enables IBM to identify and capture opportunities from a market standpoint, creating an opportunity rather than a risk."
IBM

"Ashland has identified several market opportunities that have developed as a result of climate change. Ashland products have been used for years to create lightweight composites for the automotive industry, which improves fuel efficiency, and for the production of wind-turbine blades. Other Ashland products have been used to develop composite bridge materials, which can replace traditional concrete and steel construction, provide longer bridge life, and reduce maintenance requirements. Ashland also has been producing products made from bio-renewable resources for several years, and continues to increase those capabilities."
Ashland Inc.

"We are offering a wider selection of products including those made from recycled materials, non-toxic chemicals, or all-natural ingredients, as well as Energy Star–rated electronics, appliances, and lighting."
Target Corp.

The biggest challenge for companies is not necessarily recognizing the opportunities in climate change, but rather ensuring they identify and act upon them. The rewards for action on climate change come in many forms, including sales of new products and services; improved brand image, and positive buy recommendations from institutional investors making decisions based on climate change disclosure and performance criteria. While companies are noting the increased sales and business opportunities, and are hopeful for reputational enhancement, it is not clear they are yet seeing the benefit of positive buy recommendations from institutional investors.

While companies are noting the increased sales and business opportunities, and are hopeful for reputational enhancement, it is not clear they are yet seeing the benefit of positive buy recommendations from institutional investors.

Why Technology Will Play a Leading Role in Solving Our Fossil Fuel and Carbon Emission Problems

By Timothy Carey, Partner and U.S. Cleantech Leader, PricewaterhouseCoopers

Clean technology development is undeniably riding a wave of investment, so much so that it is rapidly becoming a key investment sector in the U.S. In 2007, U.S. venture investors funded $2.2 billion in cleantech companies, a 45% increase over 2006.[15] These investments are aimed at next-generation clean technologies — energy generation, efficiency, storage, and "smart building," for example. The clean technology industry has already grown well beyond bulky photovoltaic panels, now the grandfather of cleantech. By 2010, the industry is forecast to equal that of semiconductors — the namesake of Silicon Valley — according to market researcher iSuppli.[16]

In a way, the United States' burst into cleantech in the last several years is a catch-up to Europe, which had led the world in its pursuit of renewable energy. According to the Cleantech Group, a San Francisco-based research and strategy firm, 74% of the $2 billion cleantech venture funding worldwide in the second quarter of 2008 went to U.S. companies. China and India have also entered the mix, and U.S. venture capitalists are increasingly scouting opportunities, funding cleantech deals, and setting up shops in this fertile region, where tight fossil fuel demand and both industrial and residential energy needs are creating an increasingly urgent demand for alternative and renewable energy sources.

As this report shows, spiking oil and gas prices and consumer concerns about climate change have prompted more and more companies to adopt energy efficiency programs, many with adoption of clean technologies playing an integral role. Clearly, the shift from environmental consciousness to an economic imperative has already been made.

This is all good news at a worrisome time. However, despite the strides made by consumers, businesses, and the government to cut GHG emissions, the reductions are hardly offsetting the inexorable growth of global energy needs and their resulting emissions.

Although wind power, solar power, biofuels, and electric vehicles show great promise, their costs remain higher than traditional carbon-based energy solutions. Until they reach "grid parity" with traditional energy sources, renewable energy's contribution to overall energy demand will continue to be dwarfed by fossil fuels. Once parity is reached, the tide will turn.

But when will that happen? In some sunny regions, solar power may reach grid parity by 2010, according to iSuppli.[17] In countries and states where government has shown an interest in subsidizing renewables — notably Germany, Spain, Japan, and California — regulation has spurred invention and investment flows.

Clearly, new technology will play a pivotal role in managing carbon emissions and easing our current oil and climate change dilemmas. The Carbon Disclosure Project allows us to understand the entire picture. By understanding the magnitude and urgency of the problem, we can generate support, calculate risks, set appropriate targets, and monitor progress. The greater scope and context CDP provides can also help the technology sector ensure that what is incubated now will present the right solutions needed in the future.

Great strides have been made in energy generation, storage, and efficiency across a variety of cleantech sectors, including solar, wind, batteries, zero-emission vehicles, alternative fuels, and conservation.

None of these technologies is expected to solve the global demand for fossil fuels on its own. And while the increased reliance on nuclear energy is a frequent topic of discussion, it comes with its own unique set of issues.

The silver lining may be found in the rapid pace of technology innovation. As Moore's Law allowed us to move from room-size computers to systems on a chip and from refrigerator-size servers to microdisks, technology can be a catalyst to enable the great changes needed to solve our energy and emission problems.

Why am I confident that technology will play a leading role? Quite simply because we need it to. Like the flight engineers of Apollo 13, we face an apparently unsolvable problem with unacceptable consequences. With few exceptions, cleantech is a young and promising industry. And with the many different categories within the cleantech sector gaining momentum, our current path is a "many flowers" approach.

CDP helps us learn more about the problem we must solve, anticipate risks, measure our progress, and generate support among the businesses, governments, and consumers who must change their behavior for us to reach an overall solution. We know the commercial potential of such a solution would be enormous. Investors throughout Silicon Valley and other technology centers understand this and are investing substantial sums to find it.

15 The MoneyTree Report (Q4 2007) by PricewaterhouseCoopers/National Venture Capital Association based on Thomson/Reuters data.

16 iSuppli press release, "Solar Cell Investments to Reach Parity with Semiconductor Industry by 2010", (June 23, 2008).

17 *Ibid.*

Regulatory Opportunities: Bottom-Line Benefits from Efficiency

Many of the S&P 500 respondents noted the numerous benefits and opportunities attached to regulations, especially in regard to (but not limited to) energy costs and monetization of a national emissions regulation scheme.

Kimberly-Clark, for example, noted that becoming an early player in carbon-labeling its products could create a competitive advantage: "Kimberly-Clark...has a potential opportunity in carbon labeling. As we begin to look at the 'carbon footprint' of our products, we may find that we have a competitive advantage over our competitors. As we are participating in the forefront of this effort, we may also be able to label some of our products before our competition." Similarly, **ConAgra Foods** noted: "Though intangible, climate change regulations will, in effect, force innovation. With this comes a boundless opportunity for new technologies and processes that enhance eco-efficiency. The scale to which this will impact our bottom line is unknown."

Other examples of respondent companies citing regulatory opportunities linked to climate change include the following:

"In the United States, tax incentives to encourage the manufacture of higher energy and water efficient product were available in 2006 and 2007. We are currently seeking an extension of those credits to allow the development of even more efficient product. Similar incentives could be made available in other geographic jurisdictions."
Whirlpool

"Climate change regulations may increase the value of avoided carbon and help us obtain substantial revenues through monetization of our historic and future carbon-reduction efforts."
Office Depot

"Pfizer recognizes that energy conservation and efficiency improvements offer significant cost savings and opportunities to monetize the value of GHG reductions which in turn can be used to turn non-financially viable energy efficiency and clean energy projects into financially viable projects."
Pfizer Inc.

Banking on Green

Financial services firms cite the need to finance and invest in opportunities that could create a path to sweeping energy infrastructure and transmission grid transformations — which, according to **Morgan Stanley & Co.**, "has major implications for our banking and capital markets." **BB&T** also recognized the potential for capital to fund emerging carbon economy projects: "Anticipated regulatory changes that drive the market towards sustainability may create capital investment needs."

State Street Corporation concurred, reporting that, "we believe global climate change will likely have a significant long-term financial impact on the capital markets."

Wells Fargo reported financing utility and commercial-scale wind and solar energy projects as well as being "a top financer of 'green' buildings." Likewise, **JPMorgan Chase & Co.** reports that it has invested or committed $1.7 billion for its own portfolio in renewable energy transactions.

"CDP helps us learn more about the problem we must solve, anticipate risks, measure our progress, and generate support among the businesses, governments, and consumers who must change their behavior for us to reach an overall solution."

Timothy Carey
PricewaterhouseCoopers

Profitable Climate Protection

By Amory B. Lovins, Co-founder, Chairman, and Chief Scientist of Rocky Mountain Institute (RMI)

As pundits debate theoretical costs, smart firms are racing to capture real profits — they realize that saving energy costs trillions of dollars less than buying it.

How is climate protection like the Hubble Space Telescope? Both got spoiled by a sign error — a mix-up between plus and minus signs.

Most politicians assume climate protection is costly, because theoretically perfect markets should already have done everything profitable. But if markets were perfect, all juicy rents would already have been arbitraged out and all innovations invented, making business dull.

As pundits debate theoretical costs, smart firms are racing to capture real profits — they realize that saving energy costs trillions of dollars less than buying it. In fact, Rocky Mountain Institute analysis showed that 60 to 80 market failures in buying energy efficiency could each be turned into business opportunities.[18]

Dow and **DuPont** each pocketed $3 billion by substituting efficiency for energy, with DuPont cutting GHG emissions 72% between 1990 and 2003 (or an average of 10% per year). **BP** saved $2 billion through similar energy efficiency gains. **Interface** reduced GHG emissions 82%, or 16% per year, from 1996 through 2007. **UTC** cut energy intensity 45%, or 15% per year, from 2003 through 2007, and **GE** is boosting energy productivity 30% by 2012 for shareholder value.

What do smart companies know that economic theorists don't? Efficiency is cheaper than energy: efficiency yields profits, jobs, and competitive advantage, not cost, burden, and sacrifice. That's why business, the most dynamic force on earth, leads climate protection.

Three decades' reduced energy intensity now saves the U.S. more energy each year than all of Europe uses. But this barely scratches the surface. Fully adopting modern techniques could save 50% of U.S. oil and gas and 75% of electricity currently consumed, through proven methods that cost only an eighth as much as the energy they save.[19] This potential keeps expanding: the low-hanging fruit of energy efficiency is mushing up around our ankles and spilling into our waders while the innovation tree pelts us with even more fruit.

McKinsey analyses show how to save 45% of projected global GHG emissions at trivial average net cost.[20] But as **RMI** has found, integrative design — wringing multiple benefits from single expenditures — multiplies efficiency, with the result that very large energy savings cost less than small or no savings, and yield not diminishing returns but expanding returns.[21]

RMI's latest $30 billion worth of radically efficient redesigns in 29 sectors typically found that "retrofittable" energy solutions deliver 30 to 60% savings and repay their costs within 2 to 3 years. In new facilities, they drive 40 to 90% savings, almost always at lower capital cost.

A new **TI** chip fabrication plant cut capital cost by 30%, while saving 20% of energy and 35% of water. A newer facility is expected to save two-thirds of energy and half the capital cost, while eliminating all chillers. A new no-chiller data center should save about 80% of energy and 20 to 50% of capital cost. A new mine should use no grid electricity or fossil fuel, while a new refinery should need no grid electricity, natural gas, or water. New houses, comfortable without heating and cooling equipment from -44 to +46° C, cost less to build. Office towers with good economics can produce more energy than they use.

18 Rocky Mountain Institute, "Climate: Making Sense and Making Money." 1997 (www.rmi.org/images/PDFs/Climate/C97-13_ClimateMSMM.pdf).

19 Amory B. Lovins, "Energy End-Use Efficiency," Rocky Mountain Institute, 2005 (www.rmi.org/images/PDFs/Energy/E05-16_EnergyEndUseEff.pdf).

20 McKinsey Global Institute, "Curbing Global Energy Demand Growth: The Energy Productivity Opportunity", May 2007 (www.mckinsey.com/mgi/publications/Curbing_Global_Energy/index.asp).

Artfully integrating existing energy efficiency technologies can triple truck, car and airplane efficiencies with six-month, one year, and two- to three-year paybacks, respectively. Factor in climate-safe supply substitutions, and we can eliminate U.S. oil use by 2050, at an average cost of $15 per barrel.[22]

Conventional projections of how much energy can be saved, and at what cost, exclude all these opportunities.

Another climate revolution is "micropower" (cogeneration plus renewables minus large-scale hydropower). Low- or no-carbon micropower now delivers one-sixth of the world's electricity (a greater share than nuclear power), one-third of new electricity, and in a dozen industrial countries, one-sixth to more than half of all electricity. In 2006, nuclear energy's added capacity was less than that of photovoltaic energy, one-tenth of windpower's, and one-thirtieth to one-fortieth of micropower's. That year, China's renewables, excluding large-scale hydropower, reached seven times its nuclear capacity and grew seven times faster. In 2007, the U.S., China, and Spain each added more windpower than the world added nuclear power; U.S. wind capacity additions exceeded the past five years' total U.S. additions of coal capacity; and renewable power worldwide received $71 billion of private investment while nuclear, as usual, got none, since its only buyers are central planners.

There's no nuclear revival — new U.S. subsidies (100% or more) aren't luring investors. But if there were, that investment would potentially buy two to 10 times less carbon reduction per dollar — and do so approximately 20 to 40 times slower — than micropower or energy efficiency.[23] Those low- and no-carbon competitors, best for climate and security, are winning as exploding sales drive down costs even further.

Just as businesses should be encouraged to report their energy use, costs, and GHG emissions, they are also encouraged to report on their energy efficiency initiatives, as well as their investment in — and adoption of — innovative renewable and alternative energy supplies, in recognized frameworks such as the Carbon Disclosure Project (CDP).

Business-led climate protection will be sped modestly by carbon pricing — efficient carbon markets will ultimately clear at low prices — but dramatically by profit, including side-benefits often tens or hundreds of times more valuable than the direct energy savings. Treaties and other policies can help too, but development imperatives, not treaties, made energy efficiency China's top strategic priority. If governments steer right and bust barriers to help business row towards profit, climate protection can become an unprecedented bonanza.

Physicist Amory B. Lovins is co-founder, Chairman, and Chief Scientist of Rocky Mountain Institute (www.rmi.org) — an independent, non-partisan, entrepreneurial, non-profit think-and-do tank that implements transformational solutions for energy and resource efficiency, chiefly with the private sector. His first professional paper on climate change was in 1968.

Business-led climate protection will be sped modestly by carbon pricing — efficient carbon markets will ultimately clear at low prices — but dramatically by profit, including side-benefits often tens or hundreds of times more valuable than the direct energy savings.

21 Amory B. Lovins, Advanced Energy Efficiency, 2007 MAP/Ming Lectures, School of Engineering, Stanford University, www.rmi.org/stanford

22 In year-2000 dollars; details are at www.oilendgame.com

23 Amory B. Lovins and Imran Sheikh, "The Nuclear Illusion" (www.rmi.org/images/PDFs/Energy/E08-01_AmbioNucIllusion.pdf and Ambio, in press, summarized at www.rmi.org/sitepages/pid467.php).

Car manufacturers report strides in rolling out hybrid and low-emission vehicles as drivers embrace fuel-efficiency.

In 2007, coal emissions accounted for 36% of all U.S. energy-related CO_2 emissions, up 3% from 2006, according to the U.S Energy Information Administration.

Oil and gas companies, caught in the crosshairs of tight global supply, surging energy costs and calls for increased investment and research in clean technology and fuels, reported ways in which they are looking to increase the supply and proportion of alternative and renewable fuels.

On the Road

Energy prices are presenting particular pressures for logistics and transportation companies as customers look to trim supply chain costs, including those associated with delivery of products and movement of people. In 1999, the transportation sector surpassed the industrial sector to become the country's largest source of greenhouse gas emissions, and since 1990 its emissions have risen by an average of 1.4% per year, according to the U.S. Energy Information Administration.[24]

Companies in the transport and logistics industry noted how they are meeting their customers' challenges.

Ryder System said it could be well positioned to benefit in a carbon regulated economy: "As new, more stringent regulations are adopted, we believe there is the potential for increased business opportunities for Ryder...Many companies are realizing how expensive it is to implement transportation initiatives in order to comply with new regulations...In this environment, companies see the benefits of outsourcing."

On the consumer front, car manufacturers report strides in rolling out hybrid and low-emission vehicles as drivers embrace fuel efficiency.

GM is ramping up its hybrid-electric and flexible fuel E85 ethanol vehicle portfolio, rolling out ten models in 2007-2008, and is developing hydrogen fuel cell technologies. It reported: "GM believes the key to success is energy diversity...Developing alternative sources of energy and propulsion can mitigate many of the issues surrounding energy availability and the global climate issue, including global demand; business and profitability risks; and greenhouse gas emissions."

Ford Motor Company, too, reported flex fuels as a climate change opportunity: "Building a substantial fleet of FFVs (Flexible Fuel Vehicles) is a bridge to the widespread use of lower-carbon biofuels in the future."

Oil, Gas, and Coal: Exploring New Fields?

Oil and gas companies, caught in the crosshairs of tight global supply, surging energy costs and calls for increased investment and research in clean technology and fuels, reported ways in which they are looking to increase the supply and proportion of alternative and renewable fuels.

Chevron Corporation has spent more than $2 billion in renewable and alternative energy and energy efficiency services since 2002 and expects to spend more than $2.5 billion from 2007 through 2009. Chevron reports that it has installed 1,273 megawatts of clean electricity, including solar and geothermal facilities.

Apache Corporation, a leading supplier of natural gas, cites benefits from what it sees as an industrial shift to the use of natural gas, which "offers the world an important bridge to a lower carbon economy as alternative energy technologies are developed and encouraged to reach economic maturity." **ExxonMobil Corporation** reports accruing $900 million in energy cost savings in 2007: "Over the past several years, we have been improving the energy efficiency of our Refining and Chemical businesses at a rate two to three times faster than the industry."

In 2007, coal emissions accounted for 36% of all U.S. energy-related CO_2 emissions, up 3% from 2006, according to the U.S Energy Information Administration. With attention to coal emissions on the rise, responding companies described activities to identify and deploy clean coal technologies and strategies.

Eastman Chemical cites as a potential commercial opportunity its deployment of coal and petcoke gasification technologies used for carbon capture and sequestration, and enhanced oil recovery methods it says, "will allow continued use of our extensive coal reserves and refinery byproducts."

24 U.S. Energy Information Administration, Emissions of Greenhouse Gases Report, November 28, 2007 (http://www.eia.doe.gov/oiaf/1605/ggrpt/carbon.html).

In the same vein, **Praxair Inc.** cites its development of carbon capture and sequestration technologies designed for coal-burning power plants and CO_2 injection underground for enhanced oil recovery: "Legislation of carbon dioxide emissions would create new business opportunities for Praxair".

Utilities companies, in particular, are seeing tremendous opportunity in climate change, with 25 (85%) reporting that they see opportunity for both new business and competitive advantage (see Figure 22).

Efficient IT

Information technology companies, including those creating monitoring and sensing technologies, reported opportunities to meets customers' needs by improving power-hungry servers and databases as well as reducing energy consumption at their own facilities. This is especially important since energy efficiency standards for information technology are expected in the future.

"EMC believes there are substantial business opportunities to provide equipment, solutions, services, and software to companies affected by and seeking to protect themselves from climate related business risks. These opportunities come from businesses looking to invest in more efficient data centers, procure more efficient technology and server equipment, and achieve energy efficiency through infrastructure consolidation, Information Lifecycle Management (ILM), and virtualization software."
EMC Corporation

"Honeywell's product offerings relate extensively to improving energy efficiency. Public perception respecting climate change should create opportunities for Honeywell's products."
Honeywell International Inc.

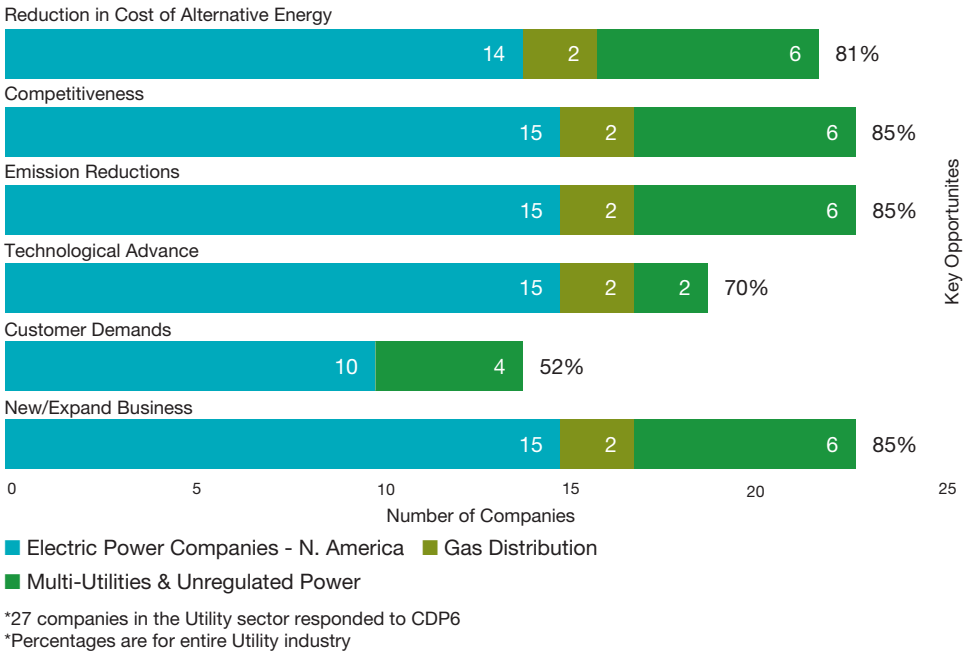
"Our existing collaboration technologies provide an alternative to physical travel [and] can influence patterns of resource consumption by Cisco and Cisco customers."
Cisco Systems, Inc.

Tackling Climate Change Emergencies

While clearly not seeking to benefit from catastrophes, some companies pragmatically state that if weather patterns become more damaging, they could benefit by providing services to affected areas. For example, Merck reports that "climate change...has the potential to increase the occurrence and spread of certain diseases including asthma and tropical diseases such as malaria," and that the company is "well positioned to respond to increased needs," particularly to those emerging from increased asthma illness.

Waste Management Inc. sees serving storm-ravaged places in another manner: "Extreme weather events, such as hurricanes, can significantly disrupt our operations. These events are often followed by a period of increased volume as we assist in recovery efforts." This recognition that climate change can have both a negative impact (e.g., commercial activities are slowed down in anticipation of hurricanes and weather-related events) and positive impacts (e.g., additional business related to clean-up activities after a weather event) is a pragmatic way of assessing potential risks and opportunities.

Fig. 22: Utility Industry Key Opportunities



*27 companies in the Utility sector responded to CDP6
*Percentages are for entire Utility industry

Prescience and Persistence: From Mauna Loa to a Global Carbon Observing System

By William J. Brennan, Assistant Secretary of Commerce for Oceans and Atmosphere and Director, U.S. Climate Change Science Program

In November 2007, the National Oceanic and Atmospheric Administration (NOAA) and Scripps Institution of Oceanography celebrated the 50th anniversary of the global carbon dioxide (CO_2) record started by Dr. Charles David Keeling at Hawaii's Mauna Loa Observatory in 1957. At the time these measurements started, little was known about CO_2 and the degree to which it fluctuated, and the fact that humans were already causing a noticeable increase in its concentration was certainly unclear. Thankfully, Dr. Keeling realized the importance of taking these measurements over time and with precision, and produced a substantial record we now refer to as the "Keeling Curve" (see Figure 23). He was ahead of his time, and his record has become a testament to the value of long-term observations, monitoring, and reporting.

Today, there are numerous ground-based observations being made across the globe for CO_2, methane, and other greenhouse gases. For example, NOAA has a substantial carbon monitoring program that participates in the World Meteorological Organization's Global Atmospheric Watch (GAW). NOAA is a leader in this area and in the GAW program, which includes over 180 other countries like China, India, and Brazil and coordinates a global network of greenhouse gas observing stations.

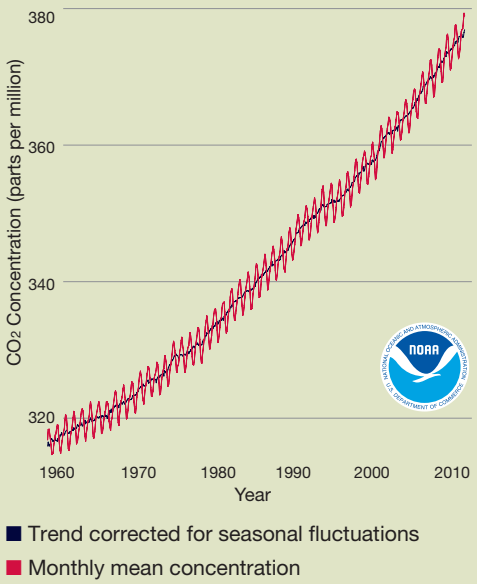
We are also starting to see efforts being made to increase observations from space. Later this year, the National Aeronautics and Space Administration will launch the Orbiting Carbon Observatory and Japan's Aerospace Exploration Agency will launch its Greenhouse Gases Observing Satellite. Both will explore the possibility of measuring the abundance and distribution of global CO_2 and other greenhouse gases from a satellite platform.

Understanding how the carbon cycle works is critical to understanding global warming, and much research and observation is still needed on carbon fluxes and their associated feedbacks. All of these observations will be critical to meeting research demands; however, it is not sufficient that carbon measurements remain just at the research level. A vital component of any follow-up to the United Nations Framework Convention on Climate Change and its Kyoto Protocol will be our ability to verify that emissions are being reduced as a result of our policies. This will require an operational carbon observation network that can integrate both ground-based and satellite observing systems. Indeed, no large-scale emissions reduction effort has ever succeeded that did not have a substantial verification component.

The Montreal Protocol on stratospheric ozone is perhaps the best example in which observations were instrumental not only in identifying the problem but also in verifying that efforts to address it were working. These measurements were also an influential driver in adjustments to the Protocol, and partly why the schedule to phase out ozone-depleting substances has accelerated over time. In the end, though, the Montreal Protocol has been successful because it effectively integrated science with monitoring, policy, and industry, which invested in technology to replace ozone-depleting substances with safe alternatives.

Like the stratospheric ozone story, reducing emissions of greenhouse gases will require cooperation among science, government, and industry, though it will have to be increased by an order of magnitude. The complexity and variability of the carbon cycle will make this a challenge; however, I am encouraged that entities like the Carbon Disclosure Project (CDP) exist and I applaud the corporations that are participating in it. A global carbon observing system will not be an easy thing to implement but it will nevertheless be crucial to sustaining a responsible and long-term solution to global climate change. Projects like the CDP and the active engagement of its members make a global monitoring system an easier proposition, and something that Dr. Keeling would be proud to know he started 50 years ago.

Fig. 23: Atmospheric CO_2 Record at Mauna Loa "Keeling Curve"



A Diversity of Perspectives: Views on key climate change issues across industries

Manufacturing How is your company exposed to regulatory risks related to climate change?	*"Currently, John Deere and our customers face uncertain, uncoordinated regulation of greenhouse gas emissions at the state, region, and country level. This environment does not provide certainty for long-term business planning. In addition, John Deere could be disadvantaged by the added administrative costs and burden of complying with various and potentially conflicting state and regional regulatory requirements."* **Deere & Company**	*"Cummins has been very proactive to be ready for the eventual regulation of our products and facilities in the U.S. and around the world. We established an internal company-wide Climate Change workgroup to look at both risks and opportunities associated with future policies on climate change. We have considered the risks associated with a variety of policies ranging from an economy-wide cap-and-trade program to fuel efficiency standards. While we continue to evaluate the numerous policy designs, we are moving forward in a four-pronged approach: (1) pushing for increased efficiency improvements in our products; (2) reducing emissions at our plants; (3) working to educate our employees; and (4) determining policy priorities. These actions are not only preparing us for regulation, but they also are positioning us to be ready for any opportunities that arise."* **Cummins Inc.**
Hospitality, Leisure, and Business Services How is your company exposed to regulatory risks related to climate change?	*"Although EDS does not have large volumes of direct emissions, the company does consume significant amounts of electricity, and as a result generates significant amounts of indirect (Scope 2) emissions. Therefore, the kind of emissions legislation that poses a risk to EDS would be legislation that (a) regulates indirect emissions, or (b) regulates direct emissions of electricity production and allows the costs of the regulations to be passed on to electricity consumers."* **Electronic Data Systems**	*"At this time, we do not believe our company is directly affected by climate change as it relates to the regulatory environment. As a global services provider with 7,000 team members working in more than 30 facilities throughout the world, we do recognize that we have a large geographic footprint and generate emissions typical of any employer in a technological industry — such as emissions related to daily transportation, print production, or the heating and cooling of our facilities. In that regard, TSYS may come under regulatory guidelines of other industries our size and working in our specific markets. At this time, these regulations do not expose the company to unusual regulatory risk."* **TSYS**
Oil & Gas How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?	*"Occidental does not have sufficient information to establish a cost basis for future financial risks since no regulations requiring GHG emissions controls have been implemented by governments in the areas where Occidental operates."* **Occidental Petroleum Corporation**	*"The company requires that all projects costing more than $5 million conduct an initial analysis to estimate emissions and net present value based on a range of potential carbon prices. Projects costing more than $50 million must submit results from the full assessment before they are funded. This helps ensure that the company's capital planning accounts for the potential financial risks and opportunities posed by the development of GHG emissions reduction policies and the markets for carbon credits."* **Chevron Corporation**
Retail & Consumer How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?	*"Heinz is subject to economic risks related to rising fuel prices and the availability of commodity crops. These issues affected Heinz in the past fiscal year and the Company anticipates that these risks will continue in the foreseeable future in many regions of the world including the U.S., the UK, Ireland, New Zealand, and Australia."* **Heinz**	*"As energy costs increase, companies with successful energy efficiency and CO_2 reduction programs in place will be able to produce goods using less energy, which will enable them to continue to offer competitive prices to their consumers. Companies without a focus on energy efficiency may face increasingly high energy costs, which will either be built into consumer pricing or will impact the company's product margins. Because Colgate has focused on a successful global initiative to reduce energy use in product manufacturing since the 1990s, we anticipate that we will be well-positioned to continue to offer products at a competitive price."* **Colgate-Palmolive Company**
Utilities How do you factor the cost of future emissions into capital expenditure planning	*"Since FirstEnergy operates in states with deregulated generation this is considered to be competitive business information that our company does not disclose publicly. General estimates are detailed in our 2005 Air Issues Report (available on our website)."* **FirstEnergy**	*"Capital projects are evaluated to determine an estimated rate of return that includes projected future CO_2 price signals and anticipated CO_2 emission impacts or benefits. Entergy's Investment Approval Process requires that significant capital spending proposals obtain approval from the Corporate Risk Committee before being sent to the Board of Directors. Market risks from various CO_2 price sensitivities are evaluated within this integrated risk management control process."* **Entergy**

7

Industry Snapshots

For the purpose of analysis, industry groups in this report are split into two categories: carbon-intensive and non-carbon-intensive.

As illustrated on the preceding page, companies across sectors and industries reported a range of diverse perspectives on common issues around climate change. Traditionally, companies in carbon-intensive industries have faced — and will likely continue to face — a higher degree of climate-related risks than their counterparts in non-carbon-intensive industries. Many have a much longer track record of addressing and managing climate-change-related issues than companies in non-carbon-intensive industries.

The following industry "snapshots" summarize key findings for each industry in a consistent format that can be used for cross-referencing data across industries. The snapshots reveal how some of the largest U.S. enterprises are preparing for a carbon-constrained economy, and provide an at-a-glance picture of where these companies are mitigating risks and embracing opportunities posed by climate change.

For the purposes of this report, "respondents" refers to companies that completed the CDP6 Information Request and does not include those responding to CDP outside of the standard response format. Accordingly, companies that provided information to CDP in 2008, but did not answer the CDP6 questions, have not been scored or included in the analysis.

Carbon-Intensive Industries

Of the carbon-intensive industries, the Utilities industry was the most responsive, with 27 companies (90% of all Utilities respondents) answering the CDP questions. The second and third highest response rates were from the raw materials, mining, paper and packaging sectors, 12 companies (75%), and Chemicals and Pharmaceuticals, 30 companies (73%). Slightly more than two-thirds of companies reported from the next three industries: transport and logistics, 12 companies (67%); Oil and Gas, 22 companies (63%), and Manufacturing, 24 companies (63%). The construction and building sectors had the lowest response rate, at just 2 companies (25%).

Since carbon-intensive industries have the greatest direct impact on climate change, they are held to the highest expectations for disclosure by investors, consumers, environmentalists, NGOs, and other stakeholders. Although each industry has leaders for disclosure, much opportunity exists to raise the overall average disclosure for this group. The highest average for disclosure was a score of 53.8 out of 100 possible (for the Utilities industry) and the lowest was 38.2 (for the transport and logistics industry) (See Figure 24).

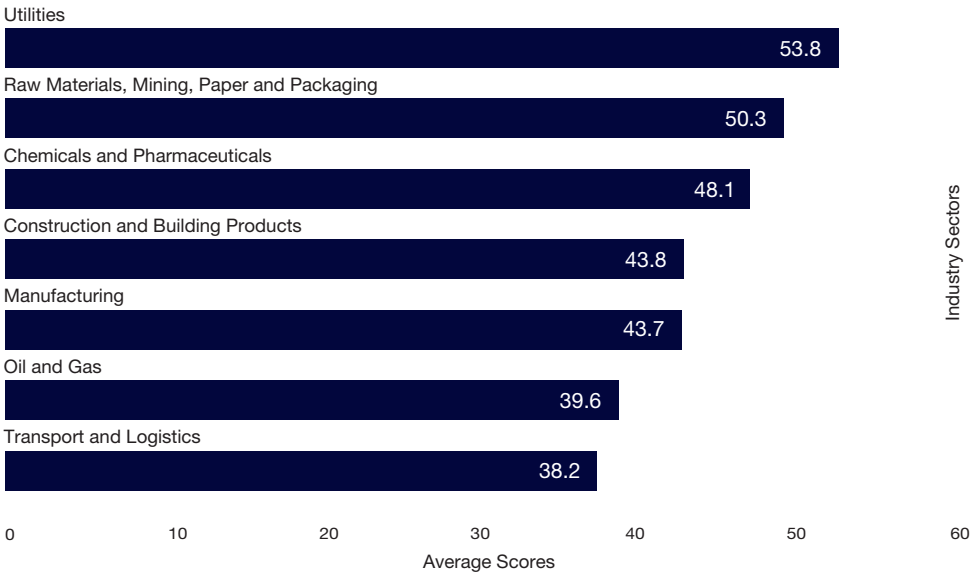
Overall, the carbon-intensive industries score well for defining very specific risks, particularly regulatory and physical risks. Most support national regulation in the U.S. to reduce overall GHG emissions, but it is highly important for this group that any national policy to reduce GHG emissions does not impede economic stability and growth. Almost all are concerned about the economic impact of passing along higher energy costs to consumers. Despite recognizing the risks, many companies still have not set or do not disclose emissions reductions targets.

According to respondents, a shift to a carbon-constrained economy in the U.S. presents wide-ranging opportunities, from exploring new and cleaner sources of energy to increasing energy efficiency and meeting changing consumer demand.

The following snapshots provide a more detailed look into the seven carbon-intensive industries. They are listed in descending order based on the average disclosure score for each industry.

Despite recognizing the risks, many companies still have not set or do not disclose emissions reductions targets.

Fig. 24: Average CDLI Score by Carbon-intensive Industry



Disclosure Scores

- Industry Response Rate[1]: **27 of 30 (90%)**
- Average Disclosure Score[2]: **53.8**
- Industry Rank Among Peers[3]: **1st**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **85%**
- Disclosed Scope 2 emissions: **56%**
- Disclosed Scope 3 emissions[4]: **19%**

1 The number of respondents compared to the total in the S&P 500 from this industry.

2 The average CDLI Score for the companies responding in this industry.

3 The rank order of the industry for disclosure, among the seven carbon-intensive industries. The average CDLI Score was used to determine the rank.

4 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.1 Utilities

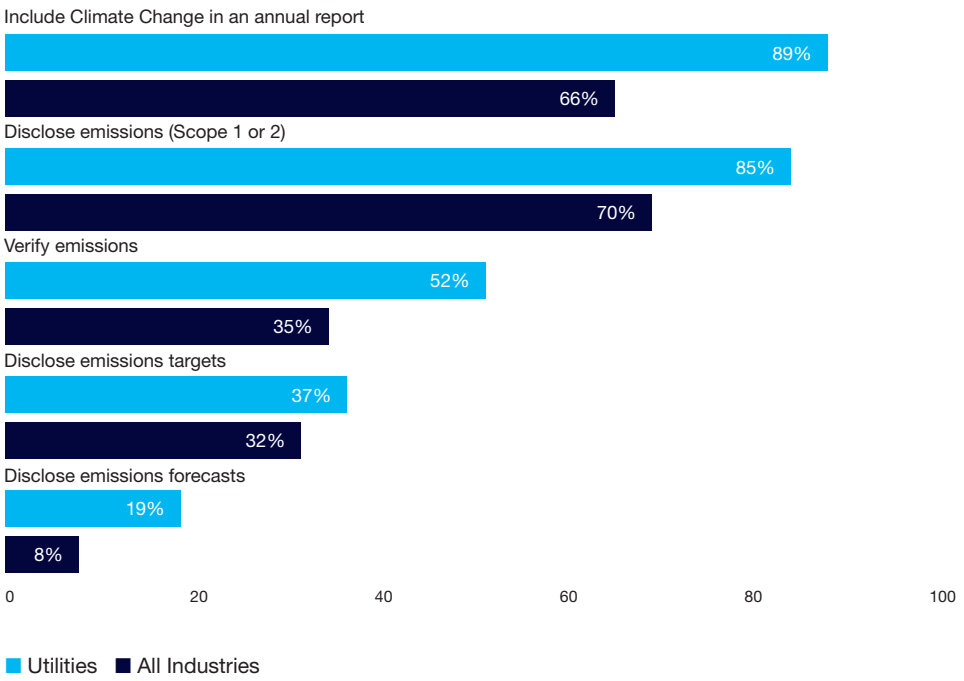
This industry group includes multi-utility and unregulated power companies, electric power companies and gas distributors.

Overall, the Utilities industry ranked highest among the carbon-intensive industries, with an average disclosure score of 53.8. Utilities respondents perform higher than average on five key areas of disclosure (see Figure 25). A lower rate of Scope 2 disclosure is unsurprising, as many Utilities rely on power they generate themselves to keep the lights on. Fewer still report Scope 3 emissions as they are often orders of magnitude lower relative to Scope 1 emissions for this industry.

Many Utilities in the S&P 500 — particularly electric power companies in California, Florida, the Midwest, and the Northeastern and Mid-Atlantic states — report they are beginning to operate under state or regional efforts to register or reduce GHG emissions. These efforts include the Regional Greenhouse Gas Initiative (RGGI), which is scheduled to begin its inaugural auction of CO_2 allowances in September 2008 for a select number of Northeast utilities.

The group demonstrates a sophisticated understanding of the climate change-related regulatory risks they face at the local, regional, and national levels. As a whole, they are highly active in policy discussions. The expressed concern is that the wrong policy could restrict their ability to meet customer demand as it relates to clean yet affordable power. As the industry is characterized by high capital costs and long planning horizons, the period of time for regulatory change needs to be sufficiently long and transparent. Most Utilities today are enacting strategies to meet updated portfolio standards that include renewables (such as wind and solar) and new technologies (such as carbon capture and sequestration, cleaner coal-burning technologies, and landfill gas and biomass plants). Among those are: **Allegheny Energy, Inc.**; **DTE Energy Company**; **FPL Group, Inc.**; **Xcel Energy Inc.**; and

Fig. 25: Disclosure among Utilities Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

Exelon Corporation. Many are promoting their safe nuclear operating histories to communities they operate in to facilitate any potential nuclear infrastructure investment.

"Exelon will provide more low-carbon electricity to its markets by reducing emissions from its fossil generating plants, adding capacity to its existing new nuclear plants, and investing in new renewable, efficient natural gas and potentially nuclear capacity. For example, Exelon Generation recently announced that it is pursuing the development of a new state-of-the-art 600 MW combined-cycle natural gas power plant in Pennsylvania. Exelon Generation also has entered into 20-year power purchase agreements for solar energy."
Exelon Corporation

In their responses, Utilities also pointed out a number of possible physical risks related to climate change, including damage to power or gas lines from severe weather events, the effects of extreme weather on demand patterns, impacts to the seasonal delivery cycle for natural gas, and scarcity of water needed for cooling lakes. One firm, **Southern Company**, is working through another type of risk: the legal process for current litigation related to climate change.

Overall, this group now offers a range of programs to the consumer, including energy conservation and efficiency options, voluntary load-reduction efforts, and the purchasing of carbon offsets.

Most natural gas companies expect demand will rise since natural gas is the cleaner carbon-emitting fossil fuel. Electric utilities are anticipating a higher adoption rate for plug-in hybrid electric cars and are evaluating how to mainstream these vehicles' energy demands onto the distribution grid. This looks promising, as most vehicles are expected to charge at night when demand is low.

Key Facts

Among Utilities respondents:	
89%	Anticipate regulatory, physical, or general business risks as a result of climate change
85%	Believe climate change presents business opportunities
89%	Have a board-level executive responsible for climate change issues
37%	Disclose GHG emissions reduction targets
52%	Disclose GHG emissions intensity targets
52%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring Utilities companies are:[5]

Rank	Company Name	CDLI Score
1	Exelon Corporation	78
2	FPL Group, Inc.	77
3	Consolidated Edison	75
4	NiSource Inc.	74
5	Public Service Enterprise Group Incorporated	69
6	Ameren Corporation	69
7	Progress Energy Inc.	66
8	Xcel Energy Inc	66
9	Spectra Energy Corporation	64
10	Entergy Corporation	61
11	Duke Energy Corporation	61

While the remaining Utilities industry respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Two companies in the Utilities industry declined to participate. (TECO Energy provided information to CDP, but did not answer the CDP6 questions). [6]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	Sempra Energy
2	NICOR Inc.

The group demonstrates a sophisticated understanding of the climate change-related regulatory risks they face at the local, regional, and national levels.

5 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

6 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[7]: **12 of 16 (75%)**
- Average Disclosure Score[8]: **50.3**
- Industry Rank Among Peers[9]: **2nd**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **92%**
- Disclosed Scope 2 emissions: **83%**
- Disclosed Scope 3 emissions[10]: **17%**

7 The number of respondents compared to the total in the S&P 500 from this industry.

8 The average CDLI Score for the companies responding in this industry.

9 The rank order of the industry for disclosure, among the seven carbon-intensive industries. The average CDLI Score was used to determine the rank.

10. Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.2 Raw Materials, Mining, Paper and Packaging

This group represents paper and forestry companies, metals and mining firms, steel makers, and packaging and container companies.

Overall, raw materials, mining, paper, and packaging respondents perform higher than average in four of five key areas for disclosure (see Figure 26).

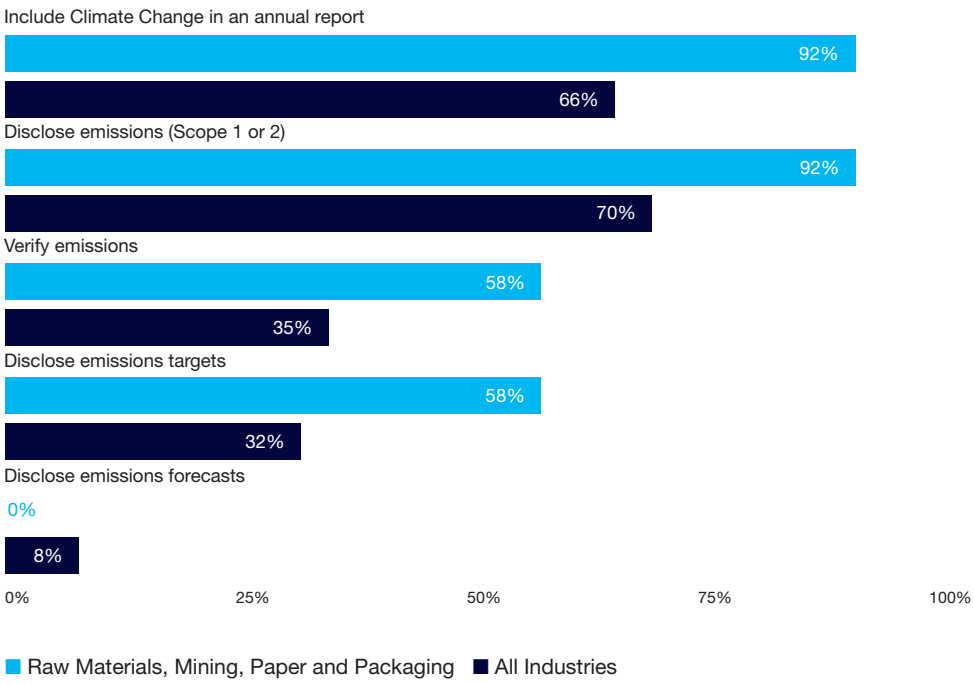
Within this group, a strong majority believe they are exposed to regulatory risk, resulting in the highest emission disclosure rate of any industry.

There are a variety of concerns for respondents in this industry. Some companies believe that new government policy/regulation may require an annual GHG emissions inventory report, which could take even more time, labor, and detail for preparation than current voluntary reports do. These companies are also concerned that regulation could be complicated and inconsistent across geographical regions.

Most companies are concerned that new regulation could lead to higher electricity costs, transportation costs, and raw materials costs. Paper, mining, and materials companies are concerned about weather events such as fire, drought, changing sea levels, and hurricanes. Packaging companies show less concern about physical risk as many do not have facilities in coastal areas. For select paper companies biomass energy has become an important part of their production processes:

"Biomass fuel from sustainably managed forests is considered to have a neutral effect on greenhouse gases in the atmosphere because the regenerating forest absorbs the carbon dioxide released by burning the biomass. Therefore, by deriving the majority of our energy from biomass rather than fossil fuel, we avoid releasing additional carbon dioxide."
Weyerhaeuser

Fig. 26: Disclosure among Raw Materials, Mining, Paper and Packaging Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

"As a paper producer with on-site pulp mills, most (>72% in our U.S. mill system) of IP's energy use for pulp and paper production comes from biomass fuels. The UNFCC [United Nations Framework Convention on Climate Change] considers biomass renewable and GHG neutral. As consumers become more educated about these attributes, IP believes consumer demand for our products will increase."
International Paper

Key Facts

Among raw materials, mining, paper, and packaging respondents:	
92%	Anticipate regulatory, physical, or general business risks as a result of climate change
83%	Believe climate change presents business opportunities
67%	Have a board-level executive responsible for climate change issues
58%	Disclose GHG emissions reduction targets
42%	Disclose GHG emissions intensity targets
58%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring raw materials, mining, paper and packaging companies are:[11]

Rank	Company Name	CDLI Score
1	Alcoa Inc	74
2	Newmont Mining Corporation	66
3	Plum Creek Timber Company, Inc.	64

While the remaining raw materials, mining, paper and packaging industry respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the raw materials, mining, paper and packaging industry declined to participate.[12]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	Nucor Corporation
2	CONSOL Energy Inc.
3	Titanium Metals Corporation
4	Pactiv Corporation

Within this group, a strong majority believe they are exposed to regulatory risk, resulting in the highest emission disclosure rate of any industry.

11 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

12 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[13]: **30 of 41 (73%)**
- Average Disclosure Score[14]: **48.1**
- Industry Rank Among Peers[15]: **3rd**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **80%**
- Disclosed Scope 2 emissions: **80%**
- Disclosed Scope 3 emissions[16]: **37%**

13 The number of respondents compared to the total in the S&P 500 from this industry.

14 The average CDLI Score for the companies responding in this industry.

15 The rank order of the industry among the seven carbon-intensive industries. The rank is determined by the average CDLI Score for the industry.

16 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.3 Chemicals and Pharmaceuticals

This industry group includes commodity, specialty, and diversified chemicals companies, pharmaceutical firms, and biotechnology companies. Companies that provide healthcare equipment and supplies are also grouped in this category.

Overall, Chemicals and Pharmaceuticals respondents perform higher than average on five key areas of disclosure (see Figure 27).

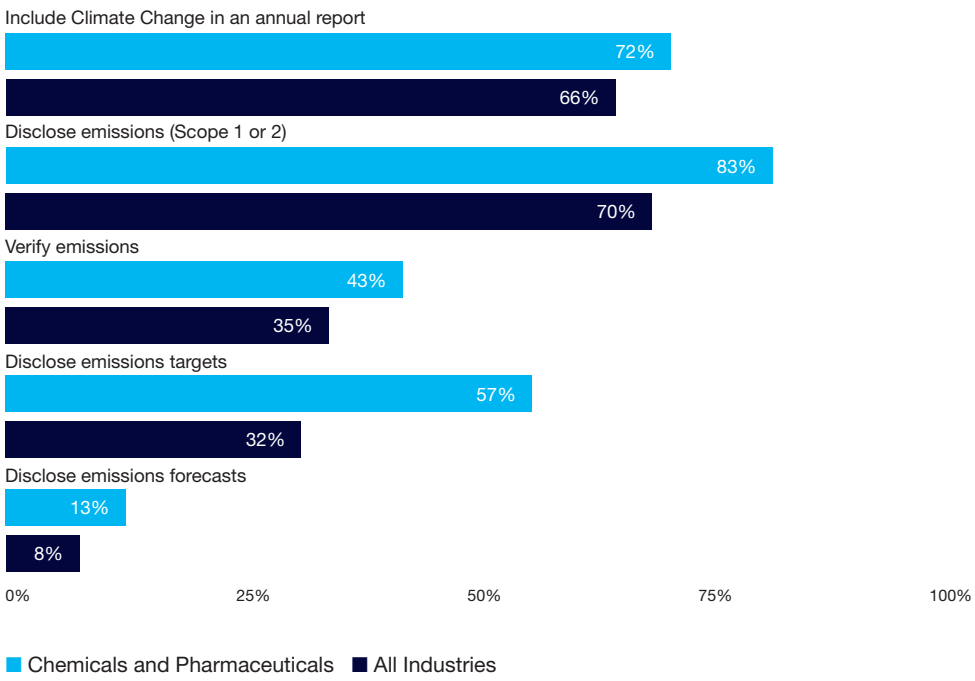
Chemical and pharmaceutical companies have a relatively high rate of disclosure for carbon emissions as 18 respondents (60%) have facilities covered under the EU ETS. Many report they currently operate within their emissions allowances and, as a result, have conducted little trading activity. The majority also note that the impact on profitability for the first phase of participation in the EU ETS has been negligible. Although costs are expected to increase in Phase II, chemicals and pharmaceutical companies express less concern, in general, about regulatory risk compared to some other carbon-intensive industries.

"The facilities identified...are able to operate under their caps with no impact or curtailment to operating activity. Overall impact to the corporation for maintaining caps is minor, and at least one facility sold credits saved on the market."
Schering-Plough

Chemical and pharmaceutical companies also have a higher rate of GHG emission reduction targets compared to other industries. Of those respondents who currently do not have reduction targets in place, many note that plans are imminent.

"From 1990 to 2007, while our worldwide sales increased by over 400 percent, Johnson & Johnson companies cut CO_2 emissions by 12.7 percent on an absolute basis. This includes the impact of RECs

Fig. 27: Disclosure among Chemicals and Pharmaceuticals Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

[Renewable Energy Credits] and carbon offsets. As of May 2008, under our CO_2 Reduction Capital Funding Process, there are 51 Projects Approved set to save 90,044 tons CO_2 per year once completed. These projects have been budgeted for $99 Million in Capital and will achieve an Average Rate of Return of 16.3%."
Johnson & Johnson

"Baxter's energy conservation (GHG reduction) activities resulted in energy savings and cost avoidance of US$12.0 million in 2004, US$6.8 million in 2005, US$3.3 million in 2006, and US$4.1 million in 2007. (Total US$26.2 million over the past four years.)"
Baxter International Inc.

The most common means of reducing emissions among this group is investing in energy-efficient building and equipment products, as well as purchasing, developing, and/or promoting renewable energy. Some companies report experiments with solid waste recycling, methane capture, biofuels, and carbon capture and sequestration.

Extreme weather events and increased costs for raw materials are the most commonly discussed physical risks among the respondents. Effects include reduced access to fresh water, disruptions along the supply chain, and regional changes in agriculture productivity, particularly among diversified chemicals companies such as **PPG** and **DuPont**.

The most common opportunities discussed include an increase in demand for products, particularly healthcare products in anticipation of health risks or disease. New needs for research and development were also noted — for example, in developing improved water treatment technologies and finding ways to increase crop yields while using less water and causing less damage to the soil.

Key Facts

Among Chemicals and Pharmaceuticals respondents:	
87%	Anticipate regulatory, physical, or general business risks as a result of climate change
53%	Believe climate change presents business opportunities
77%	Have a board-level executive responsible for climate change issues
57%	Disclose GHG emissions reduction targets
67%	Disclose GHG emissions intensity targets
43%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring Chemicals and Pharmaceuticals companies are:[17]

Rank	Company Name	CDLI Score
1	PPG Industries	80
2	Praxair, Inc.	74
3	Baxter International Inc.	74
4	Johnson & Johnson	74
5	Pfizer Inc.	67
6	Dow Chemical Company	66
7	Bristol-Myers Squibb	64
8	DuPont	63
9	Allergan, Inc.	63
10	Schering-Plough	61

While the remaining Chemicals and Pharmaceuticals respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the Chemicals and Pharmaceuticals industry declined to participate.[18]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	Stryker Corporation
2	Covidien Ltd.
3	Celgene Corporation
4	St Jude Medical
5	Hospira Inc.

Of those respondents who currently do not have reduction targets in place, many note that plans are imminent.

17 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

18 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[19]: **2 of 8 (25%)**
- Average Disclosure Score[20]: **43.8**
- Industry Rank Among Peers[21]: **4th**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **50%**
- Disclosed Scope 2 emissions: **50%**
- Disclosed Scope 3 emissions: **0%**

19 The number of respondents compared to the total in the S&P 500 from this industry.

20 The average CDLI Score for the companies responding in this industry.

21 The rank order of the industry among the seven carbon-intensive industries. The rank is determined by the average CDLI Score for the industry.

22 U.S. Climate Change Science Program, "The First State of the Carbon Cycle Report (SOCCR)" (November 2007).

7.4 Construction and Building Products

This group represents home builders and manufacturers of building products that are used in construction.

The construction and building industry had the lowest response rate to CDP, with only 2 of 8 companies reporting (25%).

Overall, construction and building products respondents perform lower than average in four of five key areas of disclosure (see Figure 28).

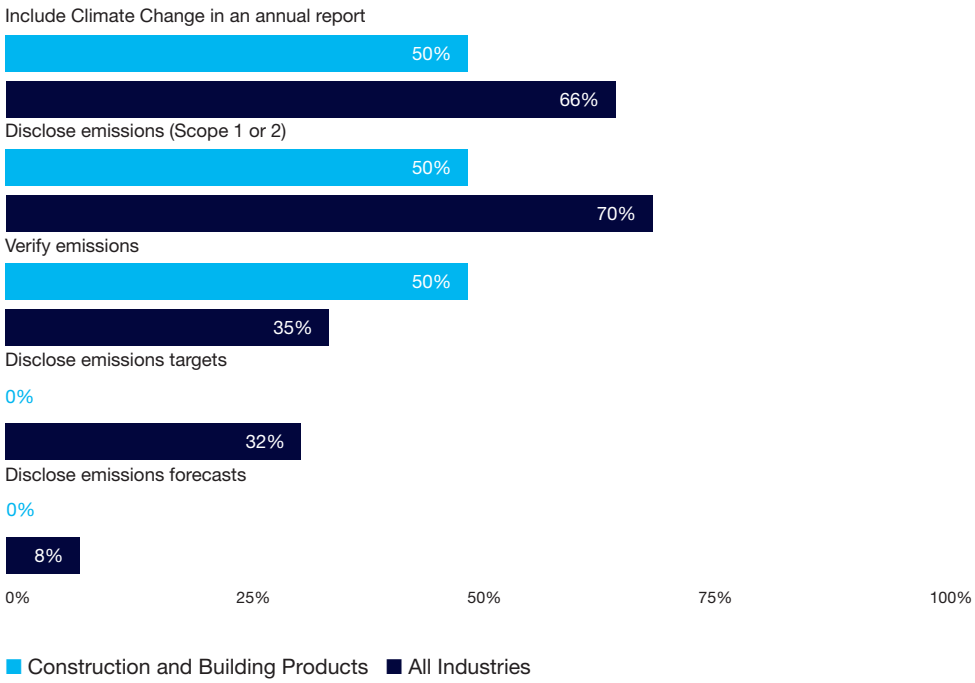
Regulatory risk is of constant concern to construction companies since the industry is heavily regulated and subject to a variety of local, state, and federal statutes.

In the U.S., buildings account for 72% of electricity consumption and 54% of natural gas consumption, plus the corresponding GHGs utilities must emit to supply them with electricity.[22] This has companies looking at growth opportunities in the development of green building products. Consumers and builders are increasingly demanding environmentally friendly products, and product manufacturers expect demand to increase as regulation increases. They also believe these types of products may be chosen by consumers and builders to repair or rebuild property that is impacted by climate change.

Respondents from a number of industries noted that one of their strategies to reduce GHG emissions was to reduce energy consumption by focusing on designing, building, and retrofitting buildings to achieve at least a Silver designation under the Leadership in Environment and Energy Design (LEED) Green Building Rating System.

"As consumer demand for energy efficient products (e.g., plumbing, paints, windows, doors, and insulation) increases we will continue to respond with environmentally friendly products and services. Therefore, we see climate change bringing commercial opportunities."
Masco Corporation

Fig. 28: Disclosure among Construction and Building Products Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

"Growing consumer interest in reducing individual or household carbon footprints, minimizing greenhouse gas emissions, and conserving natural resources to address potential global climate change impacts could increase demand for new homes over existing homes that can be less energy and water efficient, particularly in comparison to new homes built to ENERGY STAR or other recognized environmentally conscious design standards."
KB Home

Recent and potential regulation is expected to affect builders in a number of ways, including additional restrictions on where developments can be planned and what materials can be used. Builders also expect more strict, and possibly more costly, standards for home energy efficiency and water conservation. Respondents note that any related costs to the builder are likely to be passed on to buyers. Delays in the construction and delivery of buildings, and increases in construction-related costs were also noted as risks that could impact business results.

Both responding companies report that increased frequency or severity of weather events could affect the land development process, which would impact their ability to deliver buildings on time and within planned budgets. Extreme weather could delay construction schedules or disrupt the supply of materials or trade labor to the worksite. Concern exists about the potential risk of rising costs and scarcity of raw materials (and building materials) due to climate change. A resulting rise in the cost of living could impair the ability of buyers to afford new construction.

Companies in this industry are taking steps now to increase operational energy efficiency, incorporate sustainable design criteria, use fewer resources, reduce GHG emissions, and generate less waste.

Key Facts

Among construction and building products respondents:	
100%	Anticipate regulatory, physical, or general business risks as a result of climate change
100%	Believe climate change presents business opportunities
50%	Have a board-level executive responsible for climate change issues
0%	Disclose GHG emissions reduction targets
50%	Disclose GHG emissions intensity targets
50%	Verify/audit GHG emissions data

No companies in the Construction and Building Products sector scored highly enough to appear in the CDLI

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	Fluor Corporation
2	Vulcan Materials
3	D.R. Horton
4	Lennar Corporation

Consumers and builders are increasingly demanding environmentally friendly products, and product manufacturers expect demand to increase as regulation increases.

23 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

24 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[25]: **24 of 38 (63%)**
- Average Disclosure Score[26]: **43.7**
- Industry Rank Among Peers[27]: **5th**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **71%**
- Disclosed Scope 2 emissions: **71%**
- Disclosed Scope 3 emissions[28]: **8%**

25 The number of respondents compared to the total in the S&P 500 from this industry.

26 The average CDLI Score for the companies responding in this industry.

27 The rank order of the industry among the seven carbon-intensive industries. The rank is determined by the average CDLI Score for the industry.

28 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.5 Manufacturing

This group represents aerospace and defense, farm, construction and heavy machinery, automobile, auto component, and electrical equipment companies. Also included are industrial conglomerates and industrial machinery firms.

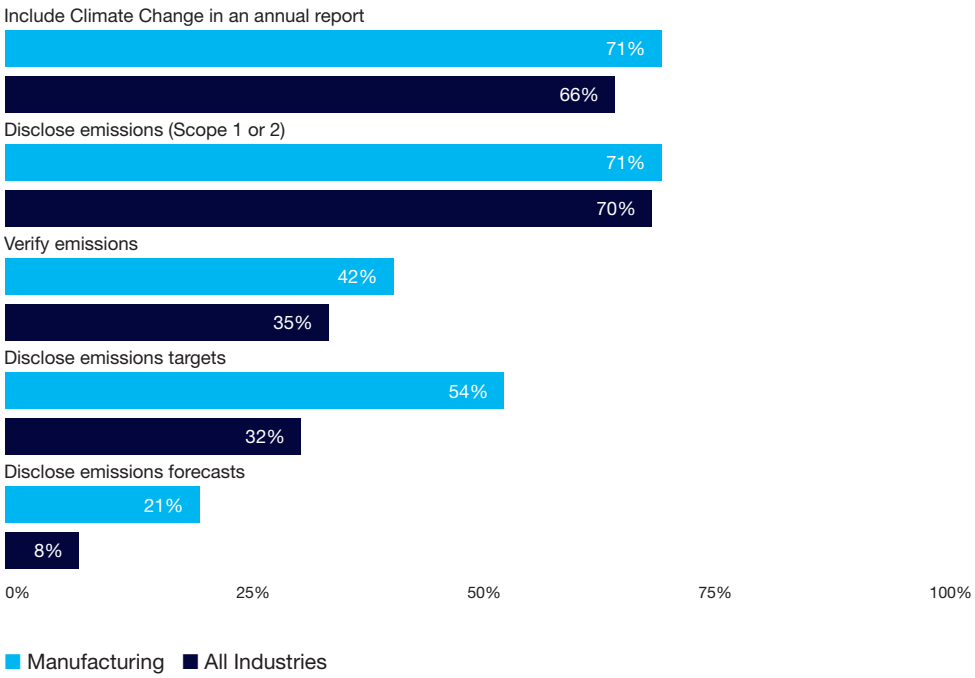
Overall, Manufacturing respondents perform higher than average in five key areas for disclosure (see Figure 29).

All manufacturers responding to the CDP6 information request believe that climate change presents opportunities. Most significant are opportunities related to improving energy efficiency at Manufacturing facilities and developing products that consume fewer resources and can be recycled. The industrial conglomerates, industrial machinery, and electrical equipment companies see new product development as a source of growth as consumer behavior shifts and buyers seek more energy-efficient products.

"GM's strategy employs an integrated approach that manages lifecycle energy use and emissions from our manufacturing processes through to the vehicle's end of life. A few examples include: Implementing advanced technologies in internal combustion engines; producing increasing numbers of flexible fuel vehicles and promoting the use of E85 ethanol; rolling out a full portfolio of hybrid vehicles; deploying 100 hydrogen fuel cell Chevy Equinox vehicles in Project Driveway; actively pursuing advance battery technology for integration into vehicles that could use little or no gasoline during typical driving patterns; and continuing to set targets and both monitor and reduce GHG emissions from its facilities and products across the globe."
General Motors Corporation

"Demand continues to surge for Eaton's hybrid power system technologies. In the U.S., we're developing hybrid trucks for Coca Cola, FedEx, Pepsi Bottling, UPS Wal-Mart and others, and more than 70 percent of the vehicles at the 2007 Hybrid Truck Users Forum were all "powered by Eaton."
Eaton Corporation

Fig. 29: Disclosure among Manufacturing Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

Twenty Manufacturing companies (83%) responding to CDP6 see climate change as posing regulatory, physical, or general business risks to their companies. Risks include extreme weather events, supply chain disruptions, shifting consumer demands, and the expectation of higher energy costs as an outcome of regulation. Eight respondents (33%) currently have a small number of facilities covered by the EU ETS and report that participation has little or no impact on profitability.

Some Manufacturing companies are taking comprehensive approaches to managing climate change risk, for example:

"3M's Environmental, Health and Safety Committee along with the Global Climate Change Committee, Corporate Crisis Management Team, and the Enterprise Risk Management Committee oversee, identify, and manage potential risks and opportunities for the company. Over 30 years ago, the company created its first environmental policy and launched the much copied 3P program. The 3P program helps prevent pollution at the source — in products and manufacturing processes — rather than removing it after it has been created...In 2007 more than 2.5 million metric tons of CO_2 equivalent GHG emissions were prevented in the first year."

"Life Cycle Management [LCM] is a program that is integrated throughout 3M's operations and is formally integrated into 3M's New Product introduction process, which involves the research and development, environmental, and marketing functions. Existing products are also being evaluated through the LCM process on a prioritized basis. LCM helps 3M better understand and manage the environmental, health, and safety (EHS) impacts of and efficient use of resources in 3M products throughout their life cycle. It guides responsible design, development, manufacturing, use, and disposal."
3M Company

Key Facts

Among Manufacturing respondents:	
83%	Anticipate regulatory, physical, or general business risks as a result of climate change
100%	Believe climate change presents business opportunities
83%	Have a board-level executive responsible for climate change issues
54%	Disclose GHG emissions reduction targets
38%	Disclose GHG emissions intensity targets
42%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring Manufacturing companies are:[29]

Rank	Company Name	CDLI Score
1	General Motors Corporation	66
2	Eaton Corporation	63
3	3M Company	61
4	Ford Motor Company	61

While the remaining Manufacturing respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the Manufacturing industry declined to participate.[30]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	Lockheed Martin Corporation
2	PACCAR Inc.
3	L-3 Communications Holdings
4	Harley-Davidson
5	Leucadia National Corporation

The industrial conglomerates, industrial machinery, and electrical equipment companies see new product development as a source of growth as consumer behavior shifts and buyers seek more energy-efficient products.

29 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

30 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[31]: **22 of 35 (63%)**
- Average Disclosure Score[32]: **39.6**
- Industry Rank Among Peers[33]: **6th**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **73%**
- Disclosed Scope 2 emissions: **59%**
- Disclosed Scope 3 emissions[34]: **5%**

31 The number of respondents compared to the total in the S&P 500 from this industry.

32 The average CDLI Score for the companies responding in this industry.

33 The rank order of the industry among the seven carbon-intensive industries. The rank is determined by the average CDLI Score for the industry.

34 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.6 Oil and Gas

This group represents a wide range of companies including those that conduct exploration and production, integrated Oil and Gas firms, and refiners and marketers of Oil and Gas. For the purposes of this report, companies that provide related equipment and services to the Oil and Gas industry are also included.

Unsurprisingly, most companies in this industry group responded that it is unrealistic to measure Scope 3 emissions, either because they are expected to be insignificant or that downstream measurement is out of their range of responsibility.

Overall, Oil and Gas respondents perform below average on four of five key areas of disclosure (see Figure 30).

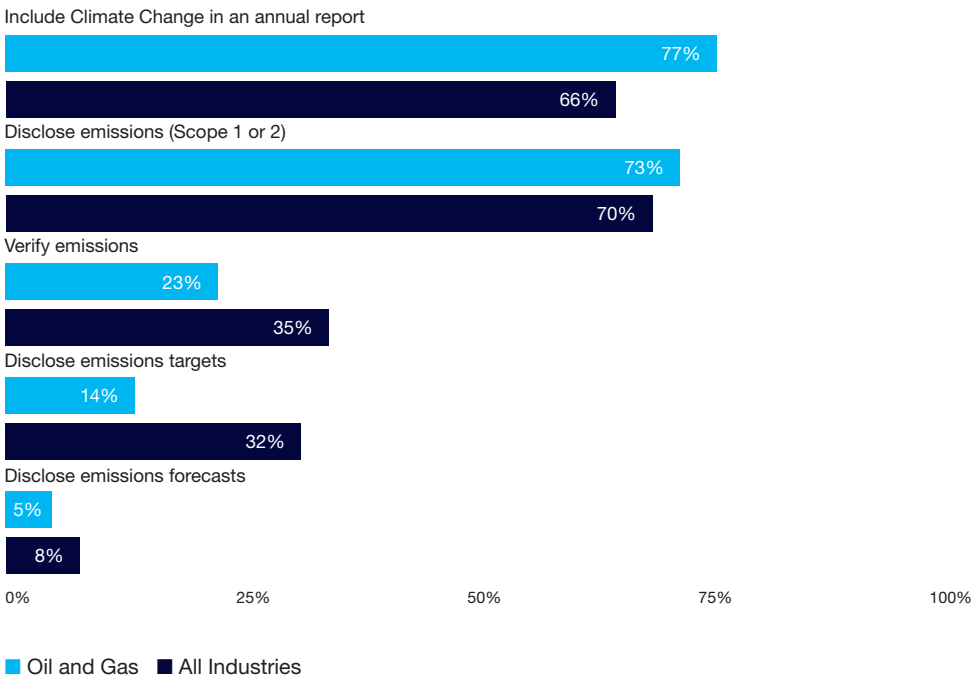
Only 3 companies (14%) disclosed GHG emissions reductions targets (**Chevron Corporation**, **ConocoPhillips**, and **Exxon Mobil Corporation**). Instead, most report selected investments in energy efficiency programs, carbon capture and sequestration, biofuels, and other renewable energy programs.

Chevron Corporation stands out as having reported the most systematic program in place to track progress towards energy efficiency:

"Chevron has made a long-term commitment to improved energy efficiency in our day-to-day operations, which will diminish our own carbon emissions. In 1992, we began tracking the efficiency of our energy use across all of our operations. Since that time, we have increased our energy efficiency per unit of output by 27 percent. In 2007, our energy efficiency was the same as 2006 and slightly better than forecast. We continue to set yearly targets for improvement."
Chevron Corporation

The industry is most concerned about the cost of compliance with regulation, severe weather events, and the threat of rising sea levels. Most have instituted programs to prevent physical

Fig. 30: Disclosure among Oil and Gas Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

risk in the event of severe storms and other natural disasters. This includes investment in both equipment and procedures to promote safe shut-down of operations and crew member safety.

Companies in the Oil and Gas industry are closely monitoring various international, national, regional, state, provincial, and local governments as they consider or enact legislation, but they note that more information is needed to assess any meaningful impact on operations. The majority of respondents are actively participating in policy discussions for any future regulation in the regions where they operate. Six respondents (27%), particularly integrated Oil and Gas companies, have facilities covered by the EU ETS but say primarily that participation has not had any effect on profitability to date.

"In Europe, ExxonMobil operates approximately 40 facilities and shares ownership in another 40 facilities that are covered under the EU ETS. Each of these facilities does not individually participate in the trading of allowances. Trading is done centrally through our Refining and Supply Company. ExxonMobil does not engage in speculative trading and does not participate in GHG trading as a commercial venture, but as a means to assure compliance at the lowest cost."
Exxon Mobil Corporation

The most commonly discussed opportunities are the need to develop alternative energy capabilities and carbon capture and sequestration services. Nearly all organizations have made investments directed towards investigating these opportunities.

Key Facts

Among Oil and Gas respondents:	
91%	Anticipate regulatory, physical, or general business risks as a result of climate change
64%	Believe climate change presents business opportunities
77%	Have a board-level executive responsible for climate change issues
14%	Disclose GHG emissions reduction targets
23%	Disclose GHG emissions intensity targets
23%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring Oil and Gas company is:[35]

Rank	Company Name	CDLI Score
1	Chevron Corporation	74

While the remaining Oil and Gas respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the Oil and Gas industry declined to participate.[36]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	Valero Energy Corporation
2	National Oilwell Varco Inc
3	Weatherford International Ltd.
4	Noble Energy Inc.

The majority of respondents are actively participating in policy discussions for any future regulation in the regions where they operate.

35 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

36 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[37]: **12 of 18 (67%)**
- Average Disclosure Score[38]: **38.2**
- Industry Rank Among Peers[39]: **7th**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **42%**
- Disclosed Scope 2 emissions: **42%**
- Disclosed Scope 3 emissions[40]: **0%**

37 The number of respondents compared to the total in the S&P 500 from this industry.

38 The average CDLI Score for the companies responding in this industry.

39 The rank order of the industry among the seven carbon-intensive industries. The rank is determined by the average CDLI Score for the industry.

40 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.7 Transport and Logistics

This grouping represents air, freight, and rail transport, distribution, commercial services and supplies, and logistics companies.

Overall, transport and logistics respondents perform below average on four of five key areas of disclosure (see Figure 31).

There is substantial concern about risk in the transportation industry because many expect it to be among the next impacted by regulation due to its air, rail, and vehicle fleets. Despite this, the industry is the lowest ranking in this year's results for disclosure among both carbon-intensive and non-intensive industries.

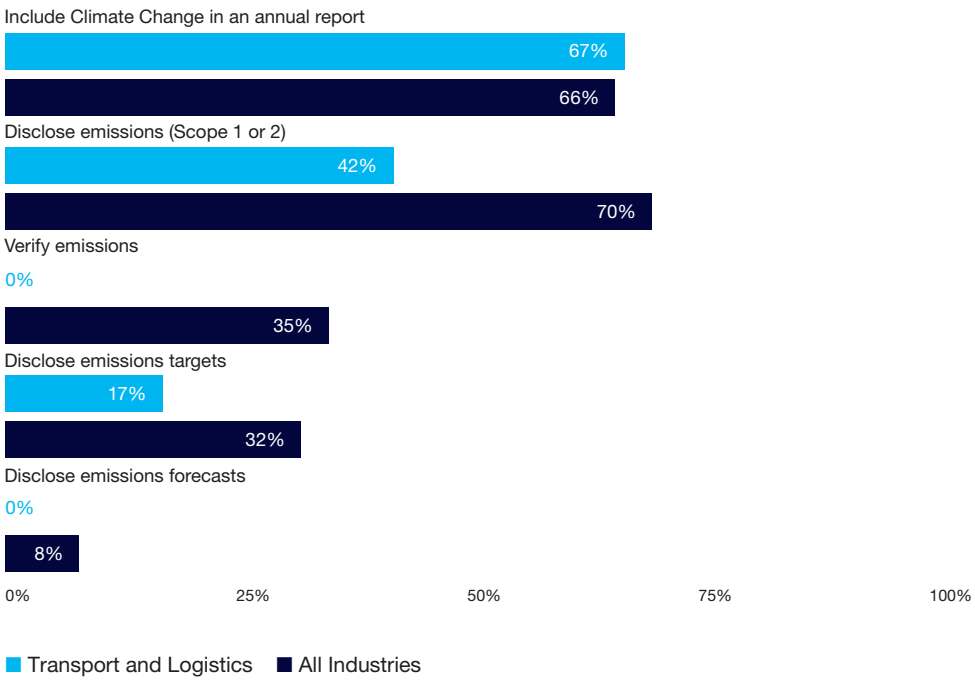
It is important to note that transportation emissions are considered Scope 1 for companies in this industry, whereas most other industry groups would count transportation as Scope 3.

Transportation respondents acknowledge that fossil fuel dependence and carbon constraints pose a major long-term threat to both the environment and the global economy, and that reducing fuel consumption and emissions has a direct impact on their financial bottom line.

Two air freight companies note the steps they are taking to lower their carbon footprints:

"We are incorporating carbon reduction quantification and financial value of carbon in the analysis of all relevant significant projects. We are analyzing all major projects to determine carbon reduction potential and goals for the organization. We are leveraging our strategy and enterprise risk groups to refine our long-term corporate strategy to incorporate climate change and environmental issues."
United Parcel Service, Inc.

Fig. 31: Disclosure among Transport and Logistics Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

"In August 2005, we opened California's then largest corporate solar electric system at the FedEx Express regional hub in Oakland. In the first year, it has provided more than 1 million kilowatt hours of renewable energy generated by sunlight, thereby avoiding the release of 342 tons of carbon dioxide into the atmosphere — equivalent to 96 acres of forest saved or not driving for 850,000 miles."
FedEx Corporation

The nature of the transportation and logistics industry leaves it vulnerable to physical risk. Operations are disrupted by climatic disturbances and disasters, and companies are concerned that the severity of these could increase with climate change. **FedEx Corporation** noted that although climate change exposes its operations to physical risks, the company's expansive infrastructure allows it to respond during catastrophes, often when others cannot. Respondents also note that negative publicity about GHG emissions could reduce demand for services, as could significant price increases that result from rising fuel and energy costs.

Transportation firms recognize that they are an important part of the supply chain and impact the operations of other businesses. Many companies are investing in more efficient vehicles and aircraft, and in testing new technologies, new fuels, and new vehicles for their readiness to be rolled out on a large scale. Logistics are continually analyzed to reduce the number of miles driven or flown. Responding companies see opportunities to become recognized industry leaders by adopting the most advanced, innovative ideas in transportation and logistics. They also see opportunities in improving the operations of their business partners and improving service to customers.

Key Facts

Among transport and logistics respondents:	
77%	Anticipate regulatory, physical, or general business risks as a result of climate change
77%	Believe climate change presents business opportunities
62%	Have a board-level executive responsible for climate change issues
17%	Disclose GHG emissions reduction targets
15%	Disclose GHG emissions intensity targets
0%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring transport and logistics company is:[41]

Rank	Company Name	CDLI Score
1	United Parcel Service, Inc.	63

While the remaining transport and logistics respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the transport and logistics industry declined to participate.[42]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	Automatic Data Processing Inc.
2	Paychex Inc.
3	Expeditors International of Washington Inc
4	Southwest Airlines
5	Cintas Corporation

Responding companies see opportunities to become recognized industry leaders by adopting the most advanced, innovative ideas in transportation and logistics.

41 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

42 See Appendix I for a complete list of companies and their history of response.

Overall, non-carbon-intensive industries are beginning to focus on more specific risks and opportunities related to climate change and are starting to mainstream climate change into enterprise-wide risk management.

Non-carbon-intensive Industries

Of the non-carbon-intensive industries, the Technology, Media, and Telecommunications sectors had the highest response rate: 59 companies (64%). Two others closely followed: Retail and Consumer with 52 respondents (63%) and Financial Services with 44 respondents (57%). The Hospitality, Leisure and Business Services sectors had the lowest response rate with 30 companies (48%) responding.

Non-carbon-intensive industries are typically seen as having indirect responsibility for climate change because of a lower level of Scope 1 emissions. As such, these industries have had different expectations placed on them for addressing climate change, expectations that are less about what they physically produce and more about business practices that contribute to the degradation of the environment (e.g., lending and insurance practices, efficient office and retail space, reducing employee business travel).

Notably, the Financial Services and the Technology, Media, and Telecommunications industries have the highest rate of disclosing Scope 3 emissions of all industries. The process of identifying and reporting has helped companies in non-carbon-intensive industries recognize that a large proportion of their CO_2 emissions are likely to be Scope 3 emissions, which in turn reinforces their emphasis and diligence in reporting these emissions.

Although each industry has leaders for disclosure, a great deal of opportunity exists to raise the overall average disclosure within the non-carbon-intensive industries. Financial services had the highest average score (59.6) and Technology, Media, and Telecommunications scored the lowest (55.8).

Overall, non-carbon-intensive industries are beginning to focus on more specific risks and opportunities related to climate change and are starting to mainstream climate change into enterprise-wide risk management. In particular, the Financial Services industry reports a wide range of opportunities to support carbon trading and the financing of projects that promote clean development and other related innovation.

The following snapshots provide a more detailed look into the four non-carbon-intensive industries. They are listed in descending order based on the average disclosure score for each industry.

Fig. 32: Average CDLI Score by Non-carbon-intensive Industry

7.8 Financial Services

This group represents banks, diversified financial companies, and, for the purposes of this report, insurance and assurance companies that provide a range of financial services to their clients.

Companies in the Financial Services industry had the highest level of disclosure among all non-carbon-intensive industries, with an average CDLI score of 59.6.

Despite some very high disclosure scores, the Financial Services respondents overall perform below average on four of five key areas of disclosure (see Figure 33).

Insuring for catastrophic loss is a primary service for insurance companies, so it's no surprise they report extreme weather events due to climate change as posing potential physical and financial risks both to their own operations and to their portfolios. Insurance company **AIG**, for example, reported that it had "after tax catastrophe losses in 2005 of $2.11 billion primarily related to Hurricanes Katrina, Rita, and Wilma." Diversified financial companies also view weather-related disruptions as the greatest physical risk, not only for their own operations but for the companies they invest in. As such, the development of new financial products that protect investors from physical risks is on the rise.

For diversified financial companies, in particular, risks to the company's reputation and risks related to financing are a concern. These companies are now striving to make relevant environmental and social concerns part of "business as usual" in both operational decisions and when conducting due diligence for transactions.

The Carbon Principles are an example of how the industry is recognizing carbon as a factor in financing. In February 2008, Financial Services companies including **Citigroup Inc.**, **JP Morgan Chase & Co.**, and **Morgan Stanley & Co. Inc.**,

Disclosure Scores

- Industry Response Rate[43]: **44 of 77 (57%)**
- Average Disclosure Score[44]: **59.6**
- Industry Rank Among Peers[45]: **1st**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **59%**
- Disclosed Scope 2 emissions: **64%**
- Disclosed Scope 3 emissions[46]: **41%**

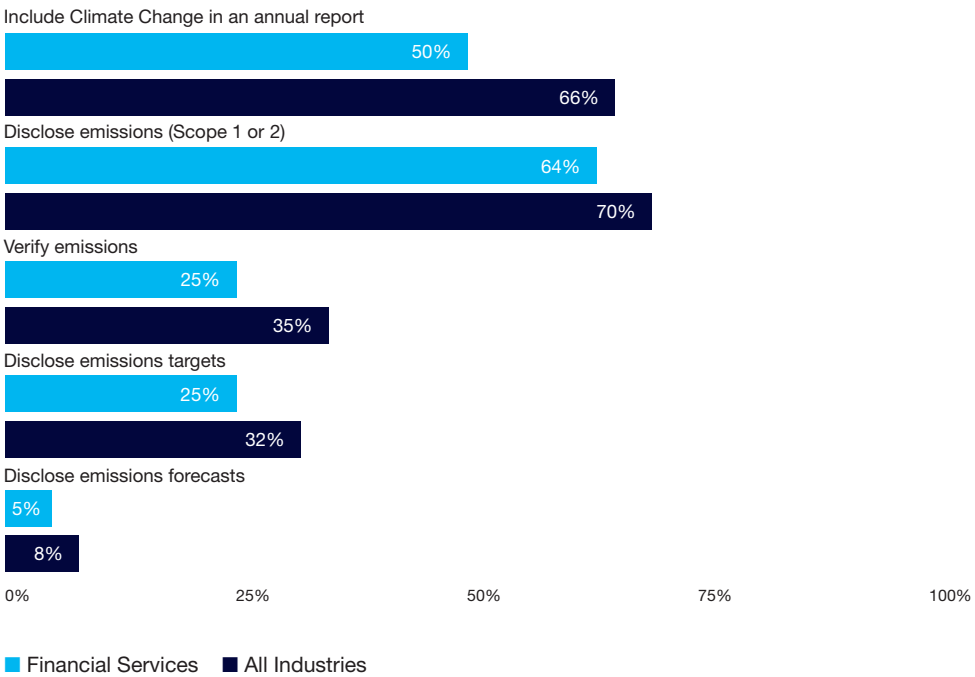
43 The number of respondents compared to the total in the S&P 500 from this industry. CDP received the following responses after the scoring had been completed: Bank of America Corporation, Marsh & McLennan, Marshall & Ilsley Corporation, Moody's Corporation, PNC Financial Services Group, Inc., SunTrust Banks, Inc.

44 The average CDLI Score for the companies responding in this industry.

45 The rank order of the industry among the four non-carbon-intensive industries. The rank is determined by the the average CDLI Score for the industry.

46 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

Fig. 33: Disclosure among Financial Services Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

The development of new financial products that protect investors from physical risks is on the rise.

developed key principles that outline a portfolio approach to financing U.S. power deals. The principles include a commitment to energy efficiency and renewable energy, and enhanced due diligence for conventional power-generation projects. The Carbon Principles were partially developed in reaction to key stakeholders' opposition to the buyout of **TXU Corp.** The deal was ultimately signed, but required that TXU make large-scale changes in its environmental practices, including a commitment to reduce the number of new coal-fired plants from 11 to three, invest in demand-side management and renewable sources of energy, and create an independent Sustainable Energy Advisory Board.[47]

Financial services companies, particularly diversified financial companies, see great opportunity as the U.S. shifts to a carbon-constrained economy. These business opportunities include, but are not limited to carbon trading, carbon offsets, and trading in weather futures; principal investments in renewable energy and energy efficiency projects; new financial products that protect against physical risks (e.g., catastrophe bonds, sidecar issuances, and actively managed asset-backed securities); and investment research. A number of new indices that expose investors to emerging investment opportunities are now being publicly marketed.

Financial services companies describe their interest in carbon trading and financing of energy efficiency projects:

"We are already one of the world's largest liquidity providers to the global carbon markets, having, traded around 450 million tonnes of EUA [EU emission allowances] thus far. In addition, we have recently taken a principal investment position in the NYMEX Green Exchange with a view to capturing the growth in volume and value from the emerging U.S. trading market for emissions."
Merrill Lynch & Co. Inc.

"In the capital markets area, we have been instrumental with various tax equity efforts in the U.S. for renewable energy financings. In terms of carbon emissions, our commodities division is a world leader and we have committed over $3 billion to new carbon emissions reduction initiatives over the next four years and launched a new carbon offsetting service for clients in the last year."
Morgan Stanley & Co. Inc

"AIG's Lexington Insurance Company has introduced Upgrade to Green, which enables commercial and residential property insurance policyholders to rebuild or repair their damaged property to recognized 'green' standards after a covered loss. The Sustain-a-Build Initiative enables AIG Environmental customers to receive discounts of up to 10 percent on premiums for new PLL policies for properties certified under the U.S. Green Building Council's LEED green building rating system."
AIG

47 Kohlberg Kravis Roberts & Co. press release, "TXU to Set New Direction As Private Company. Public Benefits Include Price Cuts, Price Protection, Investments in Alternative Energy and Stronger Environmental Policies" (February 26, 2007).

"Wells Fargo is in the process of developing a new 'green' mortgage product. In 2008, customers who used their Wells Fargo home equity finance account to purchase a solar energy system for their home were eligible to receive a $250 Wells Fargo® Visa® Gift Card. Wells Fargo also collaborated with Build It Green, a non-profit organization dedicated to promoting green building practices, to offer online tools to help customers with green home improvement decisions, such as energy efficiency improvements."
Wells Fargo & Company

Key Facts

Among Financial Services respondents:	
77%	Anticipate regulatory, physical, or general business risks as a result of climate change
71%	Believe climate change presents business opportunities
57%	Have a board-level executive responsible for climate change issues
25%	Disclose GHG emissions reduction targets
30%	Disclose GHG emissions intensity targets
25%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring Financial Services companies are:[48]

Rank	Company Name	CDLI Score
1	Merrill Lynch & Co., Inc.	98
2	Comerica Inc.	97
3	Citigroup Inc.	97
4	Wells Fargo & Company	97
5	Genworth Financial Inc.	92
6	Hartford Financial Services Group Inc.	90
7	Legg Mason	89
8	Travelers Companies. Inc	87

While the remaining Financial Services respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the Financial Services industry declined to participate.[49]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	Metlife Inc.
2	Fannie Mae
3	CME Group
4	Loews Corporation
5	NYSE Euronext

Financial services companies, particularly diversified financial companies, see great opportunity as the U.S. shifts to a carbon-constrained economy.

48 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

49 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[50]: **30 of 63 (48%)**
- Average Disclosure Score[51]: **59.4**
- Industry Rank Among Peers[52]: **2nd**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **63%**
- Disclosed Scope 2 emissions: **60%**
- Disclosed Scope 3 emissions[53]: **20%**

50 The number of respondents compared to the total in the S&P 500 from this industry.

51 The average CDLI Score for the companies responding in this industry.

52 The rank order of the industry among the four non-carbon-intensive industries. The rank is determined by the average CDLI Score for the industry.

53 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.9 Hospitality, Leisure, and Business Services

This group represents a wide range of service companies, including health care providers; hotel, restaurant, and leisure services; environmental and public services; IT consulting; business service providers; and real estate firms and investment trusts.

Overall Hospitality, Leisure and Business Services respondents perform below average on four of five key areas of disclosure (see Figure 34).

Hospitality, Leisure and Business Services companies state that the greatest risks of climate change are increasing energy prices and the potential impact of extreme weather events. Following these is uncertainty about how future government regulations would impact costs.

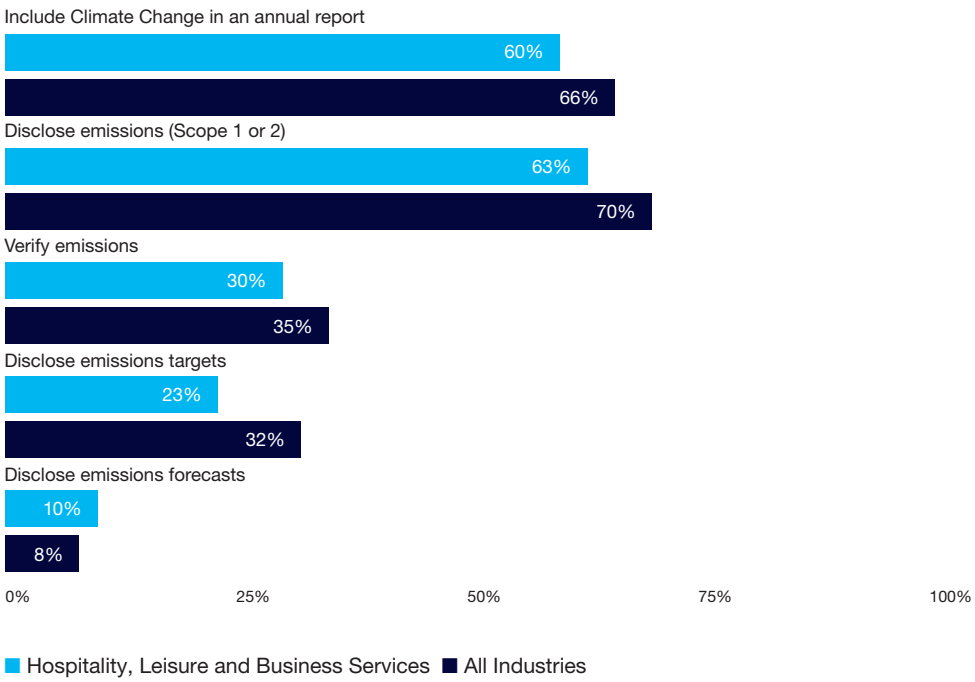
These companies believe significant opportunities exist to meet rising consumer expectations for more environmentally friendly options.

For example, hospitality and leisure companies are focused on energy efficiency (including LEED certification and guest education) and to some degree on eco-tourism options. Business and IT services are focused both on energy efficiency and technology, including services that help their clients run more energy-efficient IT operations and research and development for new technologies.

Energy consumption is the leading cause of emissions in this industry. While many companies promote energy efficiency, only 7 companies (23%) disclosed GHG emissions reduction targets. Examples of companies setting targets include the following:

"Johnson Controls, Inc. pledges to reduce its GHG emissions by 30 percent per dollar revenue from 2002 to 2012."
Johnson Controls, Inc.

Fig. 34: Disclosure among Hospitality, Leisure and Business Services Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

"Starbucks' goal, stated in the 2008 CSR report, is to reduce energy consumption in new stores by 25% starting in 2010. In addition, all new stores will be certified built-green using applicable local standards such as LEED in the U.S."
Starbucks Corporation

Utilizing green sustainable buildings, offices, and technology products is considered the best method of reducing emissions, followed by lighting retrofits and greater use of renewable energy.

Key Facts

Among Hospitality, Leisure and Business Services respondents:	
83%	Anticipate regulatory, physical, or general business risks as a result of climate change
70%	Believe climate change presents business opportunities
50%	Have a board-level executive responsible for climate change issues
23%	Disclose GHG emissions reduction targets
20%	Disclose GHG emissions intensity targets
30%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring Hospitality, Leisure and Business Services companies are:[54]

Rank	Company Name	CDLI Score
1	ProLogis	97
2	Carnival Corporation	93
3	International Business Machines Corporation	92
4	Johnson Controls, Inc.	91
5	Simon Property Group	88
6	Electronic Data Systems	85

While the remaining Hospitality, Leisure and Business Services respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the hospitality, leisure and Business Services industry declined to participate.[56]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	WellPoint, Inc.
2	Cardinal Health Inc.
3	Yum! Brands Inc
4	Express Scripts
5	Western Union Company

Hospitality, Leisure and Business Services companies state that the greatest risks of climate change are increasing energy prices and the potential impact of extreme weather events.

54 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

55 Carnival classifies itself as hospitality and leisure company, rather than a transport provider. As such, the company is featured in the "non-carbon-intensive" sector despite its relatively high emissions compared to some of its industry peers. The CDLI methodology states that a company's classification as carbon-intensive or non-carbon-intensive is based solely on that company's self-identified industry grouping, rather than on actual company emissions.

56 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[57]: **52 of 82 (63%)**
- Average Disclosure Score[58]: **57.1**
- Industry Rank Among Peers[59]: **3rd**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **67%**
- Disclosed Scope 2 emissions: **64%**
- Disclosed Scope 3 emissions[60]: **29%**

57 The number of respondents compared to the total in the S&P 500 from this industry.

58 The average CDLI Score for the companies responding in this industry.

59 The rank order of the industry among the four non-carbon-intensive industries. The rank is determined by the CDLI Score for the industry.

60 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.10 Retail and Consumer

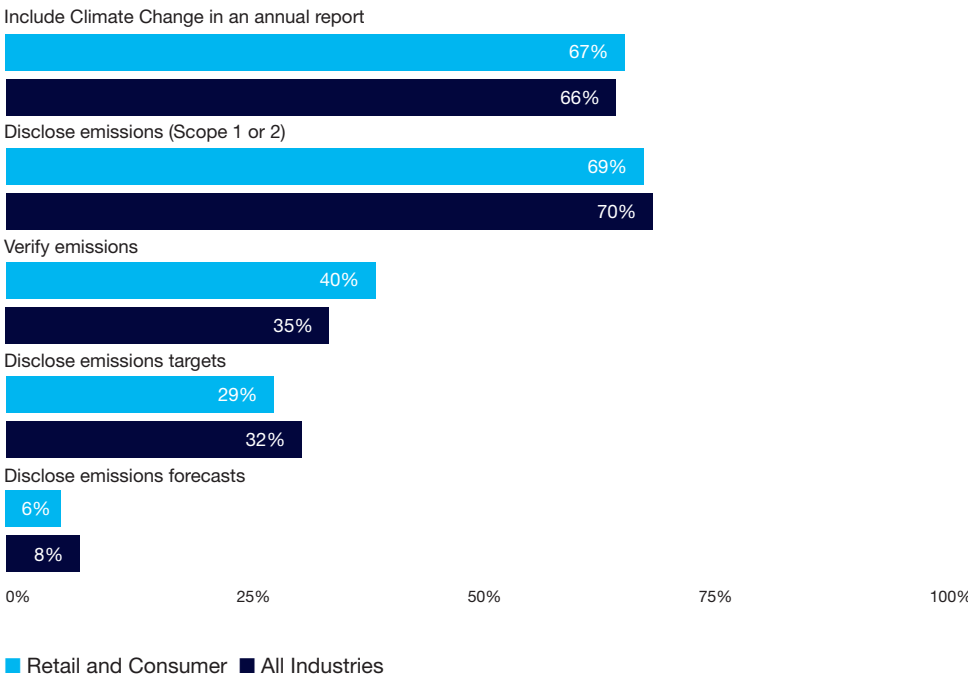
This group represents companies in the food product, beverage and tobacco, household durable, textile, apparel, and luxury good sectors. It also represents food, drug, specialty, and multi-line retailers.

Overall, Retail and Consumer respondents perform below average on three of five key areas of disclosure (see Figure 35).

Most Retail and Consumer companies responding to CDP see risk from severe weather events and in the costs and impacts of having to comply with potential regulation. Risks to the supply chain and the threat of resource shortages are also seen as significant. One company, **Wal-Mart**, noted efforts to assess its supply chain's ability to manage climate change risk. In 2007, Wal-Mart launched a pilot project with CDP to replicate the CDP reporting methodology for its corporate supply chain. Through the partnership, Wal-Mart encourages its suppliers to disclose their GHG emissions, including product-level data. Over the next two years, Wal-Mart aims to develop supplier scorecards to evaluate the carbon footprint of its suppliers and products. The pilot project on disclosure is part of a larger effort by Wal-Mart to promote energy efficiency and cost savings.
As an example, Wal-Mart noted:

"We are currently deploying a Supplier Energy Efficiency Program (SEEP) that will enable low cost technology transfer throughout our supply network. It is our hope that this will form the basis of an energy efficiency model that can be adopted by any private or pubic sector organization that manages a supply chain. We are also operating programs that advance the purchase of energy saving technologies such as low energy lightbulbs. In 2006, we set a goal to sell 100 million compact fluorescent lightbulbs (CFLs). We completed the goal three months ahead of schedule and as of June 2008 had already sold 192 million CFLs, which saved Wal-Mart customers nearly $6 billion in electricity costs and reduced greenhouse gas emissions by nearly 40 million metric tons."
Wal-Mart

Fig. 35: Disclosure among Retail and Consumer Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

Changes in consumer demand and behavior are seen as a risk, but increased consumer demand for sustainable products is also seen as the most significant opportunity in the industry. Opportunities are also seen in leveraging efficiencies to reduce costs and in developing partnerships with other businesses to capitalize on new growth prospects.

Responses show the interconnected nature of risks related to higher commodity prices, access to water, the ability to source raw materials, and the ability to deliver products in a cost-effective manner:

"The risks associated with climate change for Molson Coors result from the potential for increased variability in weather patterns across our supply chain and markets...including droughts, floods, hurricanes and tornados, hail, and increases and decreases in temperatures. These adverse events and temperature changes could affect the availability, quality, and price of agricultural products, our packaging suppliers, our water supplies, our brewery operations, our distribution chains, retailers, and also the demand for our products by consumers."
Molson Coors Brewing Company

Climate change's effect on consumer demand is also being monitored:

"PepsiCo must also continue to offer products that appeal to our customers and consumers. Climate change could result in changes in consumer preferences and retail customer demands; we must anticipate and react to such changes to maintain the demand for our products. If our company is unable to meet changing consumer preferences and customer requirements, we risk reduction in demand for our products and erosion of our competitive and financial position."
PepsiCo, Inc.

Key Facts

Among Retail and Consumer respondents:	
83%	Anticipate regulatory, physical, or general business risks as a result of climate change
62%	Believe climate change presents business opportunities
56%	Have a board-level executive responsible for climate change issues
29%	Disclose GHG emissions reduction targets
35%	Disclose GHG emissions intensity targets
40%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring Retail and Consumer companies are:[61]

Rank	Company Name	CDLI Score
1	Coca Cola Company	93
2	Brown-Forman Corporation	92
3	H.J. Heinz Company	91
4	Molson Coors Brewing Company	90
5	Colgate-Palmolive Company	90
6	PepsiCo, Inc.	90
7	Kimberly-Clark Corporation	88
8	Wal-Mart Stores, Inc.	87
9	Sara Lee Corporation	86

While the remaining Retail and Consumer respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the Retail and Consumer industry declined to participate.[62]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	CVS Caremark Corporation
2	Amazon.com Inc.
3	Lowe's Companies Inc.
4	Archer Daniels Midland
5	Safeway Inc.

Changes in consumer demand and behavior are seen as a risk, but increased consumer demand for sustainable products is also seen as the most significant opportunity in the industry.

61 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

62 See Appendix I for a complete list of companies and their history of response.

Disclosure Scores

- Industry Response Rate[63]: **59 of 92 (64%)**
- Average Disclosure Score[64]: **55.8**
- Industry Rank Among Peers[65]: **4th**

Of Industry Respondents:

- Disclosed Scope 1 emissions: **63%**
- Disclosed Scope 2 emissions: **58%**
- Disclosed Scope 3 emissions[60]: **44%**

63 The number of respondents compared to the total in the S&P 500 from this industry. CDP received one response after the scoring had been completed from NetApp (formerly known as Network Appliance).

64 The average CDLI Score for the companies responding in this industry.

65 The rank order of the industry among the four non-carbon-intensive industries. The rank is determined by the CDLI Score for the industry.

66 Scope 3 emissions cover a variety of categories. In most cases companies do not report all categories of Scope 3.

7.11 Technology, Media, and Telecommunications

This group represents telecommunication and internet service providers as well as communications equipment, computer and peripheral, electronic equipment, semiconductor, and software companies. Movie and entertainment companies, publishers, and advertisers are also included.

Overall, Technology, Media, and Telecommunications respondents perform below average on five key areas of disclosure (see Figure 36).

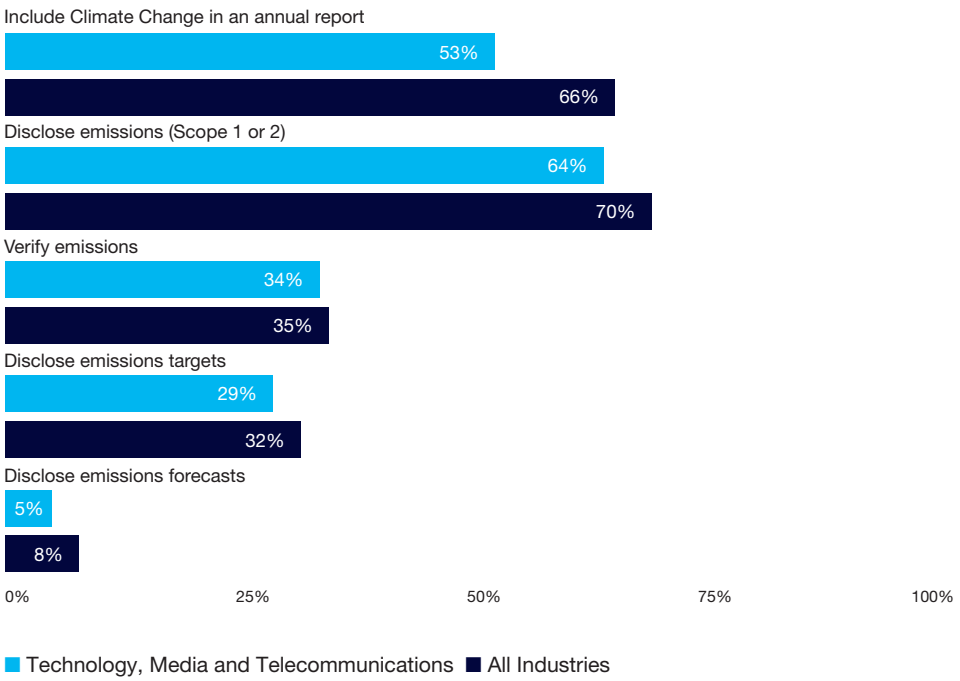
Extreme weather and the threat of higher energy prices are the greatest reported climate change risks to companies in this industry.

Also of concern are rising water levels, the impact of regulation, and potential disruptions to the supply chain. Of the respondents, 42 companies (71%) believe climate change presents business opportunities, with the most significant opportunities existing in new product development. In particular, telecommunications and networking companies note they expect an increase in demand for broadband and networking services as consumers seek ways to reduce commuting and business travel. Communications and semiconductor equipment companies are focused on advanced technologies that help improve energy efficiency. Media companies, to some degree, noted their ability to meet the needs of their audiences for more and better content on issues related to climate change.

Technology, Media, and Telecommunications companies are thinking about ways to leverage the higher cost of energy, from developing more energy-efficient products to using less energy in corporate operations:

"Given the nature and magnitude of Sun Microsystems' (SMI's) GHG emissions, the company is unlikely to be directly regulated under current or proposed climate change legislation in the U.S. and other countries. SMI is

Fig. 36: Disclosure among Technology, Media and Telecommunications Respondents



Note: This chart does not include all criteria for disclosure and is not indicative of the CDLI score.

most likely to feel the impacts of these regulations as higher energy costs to run our operations and increased demand for low-power products by our customers. Energy efficiency standards for information technology equipment will directly impact our business. Standards for server and data center efficiency could lead information technology buyers to require equipment they purchase to meet or exceed these standards."
Sun Microsystems

"Expansion of regulatory schemes designed to combat climate change could be both a risk and an opportunity for HP. From an operations perspective, any regulation that puts an upward pressure on the cost of energy would potentially increase our cost of doing business in that region (although likely not disproportionately compared with other businesses in our sector). Likewise, increased regulation of products can also add to their cost. However, in both cases, HP's approach is to pursue opportunities that reduce energy consumption in our operations and for our customers. Where possible, we also engage with policymakers in countries in which we do business to assist in their development of sound and constructive policies and rules."
Hewlett-Packard Company

Key Facts

Among Technology, Media, and Telecommunications respondents:	
68%	Anticipate regulatory, physical, or general business risks as a result of climate change
71%	Believe climate change presents business opportunities
59%	Have a board-level executive responsible for climate change issues
29%	Disclose GHG emissions reduction targets
29%	Disclose GHG emissions intensity targets
34%	Verify/audit GHG emissions data

Industry Leaders for Carbon Disclosure

The top scoring Technology, Media, and Telecommunications companies are:[67]

Rank	Company Name	CDLI Score
1	EMC Corporation	98
2	Cisco Systems, Inc.	96
3	Dell Inc.	91
4	Juniper Networks	89
5	Hewlett-Packard Company	88
6	Advanced Micro Devices	87
7	Intel Corporation	87

While the remaining Technology, Media, and Telecommunications respondents did not score as highly on the CDLI as the companies above, they are nonetheless commended for their disclosure and participation. Several of the largest companies, by market capitalization, in the Technology, Media, and Telecommunications industry declined to participate[68]

Largest Non-Respondents by Market Capitalization

Size	Company Name
1	DIRECTV Group Inc.
2	MEMC Electronic Materials
3	Electronic Arts
4	American Tower Corporation
5	International Game Technology

Telecommunications and networking companies note they expect an increase in demand for broadband and networking services as consumers seek ways to reduce commuting and business travel.

67 To qualify as a high scorer, a company must both score well and agree to public disclosure of its submissions.

68 See Appendix I for a complete list of companies and their history of response.

8

A Look Ahead

The U.S. is undoubtedly approaching a tipping point with regard to climate change. Social attitudes, political attentions, and economic imperatives are colliding on the issue to drive new behaviors, policies, and business strategies.

Given the global outlook for climate change, some of the trends emerging from the disclosures of this year's S&P 500 respondents seem likely to continue into next year and beyond:

- **More companies are expected to disclose.** This year's CDP6 S&P 500 saw a 64% response rate — a big increase on the response rate two years ago (47%). It would not be surprising to see a higher percentage of S&P 500 companies reporting in the future (and a corresponding improvement in the substantive nature of these disclosures). In addition, CDP's Supply Chain Project is likely to significantly increase the number of non-S&P 500 companies responding to the information request.
- **More companies are likely to report setting GHG emission reduction targets.** Setting emission reduction targets with specific percentage reductions pegged to a baseline year is a foundational step for mitigating climate change risks. Doing so is often a time-consuming task that poses the dual challenge of not only identifying emission sources but also choosing which emissions fall into the organizational boundaries and which therefore should be counted. Many respondents, however, indicated they are in the process of developing such targets, suggesting that an industry-wide increase in the establishment of such targets is inevitable. It is also likely that forward thinking companies will increasingly develop multiple targets — intensity-based targets, but also absolute reduction targets, leading to a reduction or reversal of emissions growth.

- **More companies are expected to address extended supply chain emissions in their disclosures.** Increasingly, companies are beginning to understand that GHG emissions associated with their extended supply chains (manufacturing, distribution, and logistics) are often as important as the emissions tied to the use of their products and services. For example, a failure to factor GHG emissions analysis into product development, material selection, business location, and corporate strategy decisions may place companies at a competitive disadvantage if regulations and consumer preferences reward companies with more comprehensive climate change strategies. More companies are likely to request their supply chains provide this information, so that these responding companies can report, and more importantly begin to manage, their Scope 3 emissions. Suppliers seeking to avoid repeating the task of reporting this information to corporate customers will increasingly gravitate towards CDP as a standardized, recognized and valued repository of such information.
- **Increasingly, companies will embed climate change in their ERM strategies.** With 254 S&P 500 respondents (81%) considering risks related to climate change, it is clear that climate change has moved from the fringes to the forefront of many companies' risk management discussions. Respondents offered detailed, "personalized" insight into the challenges they have identified across a number of risk categories, including physical and regulatory risks. The most concrete example of the need (and opportunity) to embed climate change into ERM strategies is the evolution of the corporate mindset on climate change itself. Whereas in previous years climate change was principally a reputational concern tied to corporate social responsibility efforts, it has transformed into a critical financial, operational and compliance consideration for forward thinking companies today. This trend may be amplified if one of the current SEC proposals requiring climate change disclosure is accepted.
- **Climate change will continue to afford companies new, "personalized" business opportunities.** Respondents sent a resoundingly clear message: Where there is risk, there is opportunity. Among respondents in the Utilities industry, for example, 24 (89%) saw risk in climate change, but nearly as many — 23 (85%) — also saw commercial opportunity. Among these, companies across industries reported opportunities to explore new products and services, as well as clean technology.
- **More companies will report on Scope 3 emissions.** The reporting of Scope 3 emissions is a leading indicator for future disclosure and reporting. As previously noted, GHG emissions reporting used to be dominated by carbon-intensive industries, often subject to regulatory reporting requirements. As companies in non-carbon-intensive industries take up the challenge of GHG emissions reporting, an increasing proportion of these companies' emissions will likely be identified as Scope 3. Scope 3 emissions represent opportunities to better engage with employees, customers, suppliers and other stakeholders. For example, companies can engage employees at a personal level by collaborating to reduce business travel and bridge the distance between the company's emission reduction targets and individual actions to curtail emissions.

"Though intangible, climate change regulations will, in effect, force innovation. With this comes a boundless opportunity for new technologies and processes that enhance eco-efficiency. The scale to which this will impact our bottom line is unknown."

ConAgra Foods Inc

"The world is starved for solutions for sustainability and more than at any time in the Company's history, we have technology and solutions to offer to others that can contribute significantly to addressing some of the world's most pressing environmental challenges."

Applied Materials Inc.

Investors increasingly want to know how companies are future-proofing themselves against the effects of climate change.

Comprehensive disclosers will increasingly be viewed as transparent and trustworthy by both consumers and the general financial services industry.

CDP is providing the marketplace with infrastructure around common questions, common timetables and a transparent repository of corporate climate change data.

What GHG Emissions Management Means for the U.S.

The movement among U.S. businesses toward fuller emissions disclosure — and, ultimately toward more companies reducing GHG emissions — contributes to U.S. domestic and even foreign policy goals. On the international stage, how U.S. industry approaches emissions reductions will very much reflect U.S. leadership on climate change and, in turn, will help bring about geopolitical and energy security gains. A 2008 independent task force report published by the Council on Foreign Relations and chaired by former New York State Governor George E. Pataki and former Iowa Governor Thomas J. Vilsack asserted, "Shaping global action to limit the emissions that cause climate change offers the United States opportunities to advance its energy security agenda."[69]

The task force also reported that climate change policy can generate new opportunities for the nation's economy, noting that "policies that require lower greenhouse gas emissions will create incentives for new industries. U.S. firms and workers stand to reap important gains from the new markets that will arise at home and abroad for low-carbon technologies."

The movement toward fuller emissions disclosure and emissions reduction in the U.S. coincides with a post-Kyoto push toward greater global collaboration on climate change. In the wake of the December 2007 United Nations Climate Change Conference in Bali, Indonesia, governments are now looking to hammer out formal negotiations on a fortified climate change agreement, due in late 2009 at the Climate Change Conference in Copenhagen, Denmark.

What Emissions Disclosure Means for the Investor Community

Investors require fuller, more transparent corporate reporting on climate change. However, while the financial reporting model is long established, the reporting of contextual, non-financial information (such as emissions disclosures) is less developed. As a result, in many cases, business processes are not yet "hard-wired" to collect and make use of data on these connection points, which in turn precludes the situation from being discussed at the executive or board levels.

In this regard, big changes are afoot among the investment community. As demonstrated by CDP, investors increasingly want to know how companies are future-proofing themselves against the effects of climate change. Companies, and their investors, are starting to realize that the corporate climate change agenda permeates the entire organization. It affects the types of products and services a company chooses to develop, how brands are positioned and how an extended supply chain is configured and informs the overall culture and values of the organization.

Investors should therefore be pleased to see an increased number of responses and more expansive, detailed disclosures to CDP this year. While companies are still in different stages of understanding and their programs are somewhat determined by their industry sector, competitor actions and corporate perspectives, it is refreshing to see that the notable progress across industries in addressing climate change runs parallel to rising expectations among institutional investors.

As investors — as well as lenders and insurers — weigh their own business opportunities, such disclosures will become even more integral to assessing the attractiveness of one company over another. Comprehensive disclosers will increasingly be viewed as transparent and trustworthy by both consumers and the general financial services industry.

69 Council on Foreign Relations, Confronting Climate Change: A Strategy for U.S. Foreign Policy (2008).

Room for Improvement: Convergence and Standardization

While respondents have shown demonstrable improvement in the areas of convergence and standardization, there remain some gaps that need to be addressed.

Areas that stand out for greater standardization and convergence include:

- Communicating GHG and climate change information to the investment community and general public in a timely and transparent fashion — with the same consistency of other major corporate reporting events, such as quarterly earnings.
- Ensuring that the information disclosed is consistent, transparent, and detailed, and agrees as much as possible with the information communicated by comparable companies in any given industry, thus avoiding the nettlesome apples-to-oranges analyses that vex investors.
- Applying consistent measurement protocols that represent the highest standards, and encouraging companies to follow the protocols carefully and completely.

CDP — Future Enhancements

As noted, non-financial reporting is less well developed than traditional financial reporting, with few standards, less external assurance and of mixed quality. In many cases the reporting is only done annually. With a broad stakeholder base, the communication tends to be about actions the companies are taking to measure and manage their carbon footprint and pursue market opportunities. Fortunately, CDP provides an investor focus that allows respondents to create a more targeted communication and CDP is working to help improve on current reporting conditions.

In its role as Secretariat to the Climate Disclosure Standards Board (CDSB), CDP is helping to harmonize reporting mechanisms to reduce the burden on corporations, and to increase the comparability of reported data. It has recently upgraded its own data output to enable easy cross-comparison of answers to CDP information requests by investors, and is developing training workshops for companies to share best practice.

To support the quality of the reporting, companies must implement clear governance structures and polices with enhanced compliance and oversight for climate change related issues. With that infrastructure, companies can be more confident in the accuracy and reliability of their carbon reporting. That said, recasting the corporate reporting model will not be best achieved by prescriptive regulation. Instead it requires a market-driven approach; one that stimulates a vibrant business environment, as well as facilitating a 'lighter touch' by governments. CDP is a clear part of the equation — providing the marketplace with infrastructure around common questions, common timetables and a transparent repository of corporate climate change data.

The Final Analysis — Looking to the Future for Companies, Consumers and Investors

In the days and months ahead, the challenge for companies will be to more fully integrate long-term climate change impacts into current resource allocation and investment decisions. This is particularly true when the impacts are related to a changing physical climate or long-term shifts in consumer demand. Although physical climate factors may be a part of the investment and capital analysis process, these impacts are currently difficult to integrate into a financial assessment of a project or valuation exercise. It is through annual reporting — of both financial and non-financial information — that investors can best observe business performance under constantly changing conditions.

As this year's responses indicate, not all companies are forging ahead so assertively. Some companies seem to be taking a "wait and see" approach to GHG emissions and climate change policy. Companies that take such an approach may be limiting their own windows of opportunity. Preparing an organization for a carbon-constrained economy requires considerable time, effort, and capital. Identifying emissions (Scopes 1, 2 and 3), measuring them, setting reduction targets, and establishing specific steps to achieve those objectives can draw on considerable resources and take years, not months, to do correctly.

In the future, companies will have myriad ways of approaching the market challenges that climate change brings to the table. Surely, some businesses will thrive, while others will fight simply to survive.

9

Appendix I

Scores and Emissions by Company

Key:

NP:	Answered questionnaire but response not made publicly available
AQ:	Answered Questionnaire
AQ(L):	Answered Questionnaire late
IN:	Provided Information[a]
DP:	Declined to Participate
NR:	No Response
X:	Company not in S&P 500 sample in that year
Y:	Yes

Companies responding to CDP but not granting authorization for public disclosure are listed on p. 109. In this Appendix, their CDLI score is shown but any emissions data provided is not.

a For the purposes of this report, "respondents" refers to companies that completed the CDP6 information request and does not include those responding to CDP outside of the standard response format. Accordingly, companies that provided information to CDP in 2008, but did not answer the CDP6 questions, have not been scored or included in the analysis.

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 1	Scope 2	Scope 3				CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]			Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
3M Company	61	9,090,000	41	372	Y	Y					AQ	AQ	AQ
Abbott Laboratories	52	1,704,256	77	66	Y	Y				Y	AQ	AQ	AQ
Abercrombie & Fitch Co.											X	X	NR
ACE Limited	67	37,821	190	3	Y	Y				Y	NR	AQ	AQ
Adobe Systems, Inc.	65	33,332	193	11	Y	Y				Y	AQ	AQ	AQ
Advanced Micro Devices	87	449,128	128	75	Y	Y			Y	Y	NR	AQ	AQ
AES Corporation	9	84,000,000	6	6,182	Y						AQ	AQ	AQ
Aetna Inc.	67	84,602	177	3	Y	Y				Y	AQ	AQ	AQ
Affiliated Computer											NR	DP	NR
AFLAC Inc.	56	38,348	188	2	Y	Y					DP	NR	AQ
Agilent Technologies	75	155,722	161	29	Y	Y				Y	IN	AQ	AQ
Air Products & Chemicals	54	22,000,000	25	2,192	Y	Y					AQ	AQ	AQ
Akamai Technologies Inc											X	X	DP
Alcoa Inc	74	59,000,000	12	1,919	Y	Y					AQ	AQ	AQ
Allegheny Energy Inc.	45	40,865,372	17	3,841	Y						DP	AQ	AQ
Allegheny Technologies Inc	22										IN	AQ	AQ
Allergan, Inc.	63	118,753	167	30	Y	Y					AQ	AQ	AQ
Allied Waste Industries											NR	IN	IN
Allstate Corporation	69	278,655	143	8	Y	Y				Y	NR	AQ	AQ
Altera Corporation	20										DP	AQ	AQ
Altria Group Inc.	77	457,578	126	12	Y						DP	AQ	AQ
Amazon.com Inc.											NR	NR	DP
Ambac Financial Group	31										NR	NR	AQ
Ameren Corporation	69	68,188,741	8	9,036	Y						IN	DP	AQ
American Capital DP Strategies Ltd											X	X	
American Electric Power	53	156,300,000	1	11,682	Y						AQ	AQ	AQ
American Express Company	80	211,535	151	8	Y	Y				Y	AQ	AQ	AQ
American International Group	57	495,359	121	5	Y	Y				Y	AQ	AQ	AQ
American Tower Corporation											X	X	DP
Ameriprise Financial Inc.											NR	DP	DP
AmerisourceBergen Corporation	37										NR	NR	AQ
Amgen Inc.	38										AQ	AQ	AQ
Anadarko Petroleum Corporation	49	8,320,180	42	524	Y	Y					AQ	AQ	AQ
Analog Devices											AQ	NR	DP
Anheuser-Busch Companies, Inc.[6]	68	3,060,000	62	183	Y	Y					IN	AQ	AQ
Aon Corporation	4										AQ	AQ	AQ
Apache Corporation	35										AQ	AQ	AQ
Apartment Investment & Mgmt											NR	DP	DP
Apollo Group											NR	NR	NR

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 3						CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]	Scope 1	Scope 2	Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
Apple Inc.	7										AQ	AQ	AQ
Applera Corp-Applied Biosystems Group											AQ	DP	DP
Applied Materials Inc.	79	172,598	157	18	Y	Y				Y	AQ	AQ	AQ
Archer Daniels Midland											DP	DP	DP
Ashland Inc.	40	241,000	148	31	Y	Y					AQ	AQ	AQ
Assurant Inc											X	X	NR
AT&T Inc.	55	622,226	112	5	Y	Y					AQ	AQ	AQ
Autodesk Inc.	74										NR	NR	AQ
Automatic Data Processing Inc.											IN	IN	DP
AutoNation Inc.											NR	DP	DP
AutoZone Inc.											NR	NR	NR
AvalonBay Communities											X	X	NR
Avery Dennison Corporation	45										AQ	AQ	AQ
Avon Products[6,7]	64	118,204	168	12							AQ	AQ	AQ
Baker Hughes	30										AQ	AQ	AQ
Ball Corporation	40										NR	AQ	AQ
Bank of America Corporation[5]		1,422,791	82	12							AQ	AQ	AQ(L)
Bank of New York Mellon Corporation	46										AQ	AQ	AQ
Barr Pharmaceuticals Inc.											X	NR	IN
Baxter International Inc.	74	727,790	106	65	Y	Y		Y	Y	Y	AQ	AQ	AQ
BB&T Corporation	74	107,858	170	10	Y	Y					AQ	AQ	AQ
Bear Stearns Companies											NR	NR	NR
Becton, Dickinson and Co.	39	479,579	123	75	Y	Y					AQ	AQ	AQ
Bed Bath & Beyond	40										IN	AQ	AQ
Bemis Company	39	675,458	108	185	Y	Y					NR	AQ	AQ
Best Buy Co. Inc.	46										AQ	AQ	AQ
Big Lots Inc.	40	476,098	124	102		Y					NR	DP	AQ
BIOGEN IDEC Inc.	78	96,061	175	30	Y	Y					NR	NR	AQ
BJ Services											NR	NR	DP
Black & Decker Corporation	35	254,901	146	39	Y	Y					DP	AQ	AQ
BMC Software	22										AQ	AQ	AQ
Boeing Company	53	1,692,000	78	25	Y	Y					AQ	AQ	AQ
Boston Properties											X	NR	NR
Boston Scientific	32										IN	AQ	AQ
Bristol-Myers Squibb	64	972,299	94	50	Y	Y				Y	AQ	AQ	AQ
Broadcom Corporation											NR	DP	DP
Brown-Forman Corporation	92	168,856	159	65	Y	Y				Y	NR	NR	AQ
Brunswick Corporation											NR	DP	DP
Burlington Northern Santa Fe Corporation	47	14,964,923	32	947	Y	Y					AQ	AQ	AQ
C.H. Robinson Worldwide	20										X	AQ	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 1	Scope 2	Scope 3				CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]			Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
C.R. Bard Inc	23										AQ	AQ	AQ
CA Inc.	57	124,498	165	32	Y						AQ	AQ	AQ
Campbell Soup											NR	DP	DP
Capital One Financial	32										DP	IN	AQ
Cardinal Health Inc.											AQ	DP	DP
Carnival Corporation	93	9,940,270	38	763	Y	Y					AQ	AQ	AQ
Caterpillar Inc.[6]	40	2,348,000	70	52	Y	Y					AQ	AQ	AQ
CB Richard Ellis Group	75										X	AQ	AQ
CBS Corporation	45										X	AQ	AQ
Celgene Corporation											X	DP	DP
CenterPoint Energy	45										AQ	AQ	AQ
Centex Corporation											IN	NR	IN
Century Telephone											NR	DP	NR
Charles Schwab Corporation	9										IN	AQ	AQ
Chesapeake Energy											X	NR	IN
Chevron Corporation	74	60,661,835	10	275	Y	Y					AQ	AQ	AQ
Chubb Corporation	42										DP	DP	AQ
Ciena Corporation											AQ	AQ	DP
CIGNA Corporation	45										IN	AQ	AQ
Cincinnati Financial											IN	AQ	NR
Cintas Corporation											NR	DP	NR
Circuit City Group											NR	NR	DP
Cisco Systems, Inc.	96	545,173	120	16	Y	Y				Y	AQ	AQ	AQ
CIT Group											NR	NR	NR
Citigroup Inc.	97	1,411,481	83	17	Y	Y	Y			Y	AQ	AQ	AQ
Citizens Communications											NR	AQ	NR
Citrix Systems	17										AQ	NR	AQ
Clear Channel Communications											AQ	NR	NR
Clorox Co.	75	408,800	132	84	Y	Y			Y		NR	DP	AQ
CME Group											X	X	NR
CMS Energy	34										DP	AQ	AQ
Coach Inc.											NR	DP	DP
Coca Cola Company	93	4,920,000	54	173	Y	Y				Y	AQ	AQ	AQ
Coca-Cola Enterprises	55	101,819	172	5			Y		Y	Y	AQ	AQ	AQ
Cognizant Technology Solutions											X	NR	NR
Colgate-Palmolive Company	90	675,076	109	49	Y	Y				Y	AQ	AQ	AQ
Comcast Corporation											AQ	AQ	IN
Comerica Inc.	97	62,029	183	13	Y	Y				Y	NR	AQ	AQ
Commerce Bancorp											X	NR	DP
Computer Sciences Corporation											NR	NR	NR
Compuware Corporation	19										NR	NR	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 1	Scope 2	Scope 3				CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]			Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
ConAgra Foods Inc.	79	2,461,526	68	205	Y	Y					NR	NR	AQ
ConocoPhillips[6,7]	46	63,706,198	9	328							AQ	AQ	AQ
CONSOL Energy Inc.											X	NR	DP
Consolidated Edison	75	6,467,230	48	493	Y	Y					AQ	AQ	AQ
Constellation Brands											NR	DP	IN
Constellation Energy Group	52	23,370,936	24	1,103	Y	Y	Y			Y	AQ	AQ	AQ
Convergys Corporation	37										AQ	AQ	AQ
Cooper Industries Ltd.											AQ	AQ	NR
Corning Inc.	59	1,181,894	88	202	Y	Y					AQ	AQ	AQ
Costco Wholesale Corporation	0										NR	DP	AQ
Countrywide Financial Corporation											DP	DP	NR
Coventry Health Care Inc.											NR	NR	NR
Covidien Ltd.											X	X	DP
CSX Corporation	52	6,529,067	47	653	Y	Y					NR	NR	AQ
Cummins Inc.	50	833,049	100	64	Y	Y					AQ	AQ	AQ
CVS Caremark Corporation											NR	AQ	NR
D.R. Horton											NR	IN	NR
Danaher Corporation	20										AQ	AQ	AQ
Darden Restaurants	0										IN	NR	AQ
Dean Foods	67	1,647,600	80	139	Y	Y					X	NR	AQ
Deere & Company	57	1,390,402	84	58	Y	Y					IN	IN	AQ
Dell Inc.	91	438,338	129	7	Y	Y				Y	AQ	AQ	AQ
Developers Diversified Rlty											X	X	NR
Devon Energy Corporation	42	4,170,000	55	367	Y	Y					AQ	AQ	AQ
Dillard's Inc.	38										NR	NR	AQ
DIRECTV Group Inc.											DP	DP	DP
Discover Financial Services											X	X	IN
Dominion Resources[6]	45	117,188,199	4	7,477	Y	Y					IN	IN	AQ
Dover Corporation											NR	DP	NR
Dow Chemical Company	66	37,300,000	18	691	Y	Y					AQ	AQ	AQ
DTE Energy Co.	55	45,400,000	16	5,337	Y	Y					AQ	AQ	AQ
Duke Energy Corporation	61	103,600,000	5	8,145	Y						AQ	AQ	AQ
Dynegy Inc.[6,7]	33	32,900,000	20	10,603							IN	IN	AQ
E*Trade Financial Corporation											NR	NR	NR
E.I. du Pont de Nemours & Company	63	14,000,000	34	476	Y	Y					AQ	AQ	AQ
E.W. Scripps											X	IN	IN
Eastman Chemical	38										AQ	AQ	AQ
Eastman Kodak	68	1,892,108	76	184	Y	Y					AQ	AQ	AQ
Eaton Corporation	63	949,000	95	73	Y	Y					AQ	AQ	AQ
eBay Inc.	30										AQ	AQ	AQ
Ecolab Inc.[6,7]	56	392,514	134	72							AQ	AQ	AQ
Edison International	47										IN	AQ	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 1	Scope 2	Scope 3				CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]			Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
El Paso Corporation[6, 9]	40	15,590,980	31	3,354	Y	Y					DP	AQ	AQ
Electronic Arts											DP	DP	NR
Electronic Data Systems	85	583,759	117	26	Y	Y				Y	NR	AQ	AQ
Eli Lilly and Company	53	2,071,509	75	111	Y	Y	Y		Y	Y	AQ	AQ	AQ
Embarq Corporation[6]	43	466,899	125	73	Y	Y					X	AQ	AQ
EMC Corporation	98	263,883	145	20	Y	Y				Y	IN	AQ	AQ
Emerson Electric Co.[6,7]	27	613,428	114	27	Y						AQ	AQ	AQ
ENSCO Int'l											X	X	DP
Entergy Corporation	61	33,658,098	19	2,931	Y	Y					AQ	AQ	AQ
EOG Resources	41										DP	AQ	AQ
Equifax Inc.	10										NR	DP	AQ
Equity Residential											NR	NR	NR
Estee Lauder Companies Inc											X	NR	DP
Exelon Corporation	78	11,150,000	37	589	Y	Y					AQ	AQ	AQ
Expedia Inc.											X	X	NR
Expeditors International of Washington Inc											X	NR	NR
Express Scripts											NR	NR	DP
Exxon Mobil Corporation	53	137,000,000	3	361	Y	Y					AQ	AQ	AQ
Family Dollar Stores											NR	NR	DP
Fannie Mae											DP	DP	DP
Federal Home Loan Mtg.											X	X	IN
Federated Investors Inc.											AQ	AQ	DP
FedEx Corporation	39										AQ	AQ	AQ
Fidelity National Information Services											X	AQ	DP
Fifth Third Bancorp	37										NR	AQ	AQ
First Horizon National											AQ	AQ	NR
FirstEnergy Corporation	43	46,141,777	15	3,604	Y						AQ	AQ	AQ
Fiserv, Inc.	29										AQ	AQ	AQ
Fluor Corporation											NR	DP	DP
Ford Motor Company	61	5,761,631	52	33	Y	Y					AQ	AQ	AQ
Forest Laboratories	31										AQ	AQ	AQ
Fortune Brands Inc.											IN	DP	IN
FPL Group, Inc.	77	68,346,000	7	4,350	Y	Y	Y			Y	AQ	AQ	AQ
Franklin Resources, Inc.	68	29,370	194	5	Y	Y				Y	NR	DP	AQ
Freeport-McMoRan Copper & Gold	54			0	Y						NR	AQ	AQ
GameStop Corporation											X	X	NR
Gannett Co.											DP	IN	DP
Gap[6]	43	674,377	110	43	Y	Y					AQ	AQ	AQ
General Dynamics Corporation											IN	AQ	IN
General Electric Company	56										AQ	AQ	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 3					CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]	Scope 1	Scope 2	Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
General Mills Inc.	83	1,069,584	93	86	Y	Y				Y	AQ	AQ	AQ
General Motors Corporation	66	9,590,000	39	53	Y	Y					AQ	AQ	AQ
Genl Growth Properties											X	X	NR
Genuine Parts											NR	DP	NR
Genworth Financial Inc.	92	16,830	196	2	Y	Y		Y		Y	X	AQ	AQ
Genzyme Corporation	35										AQ	AQ	AQ
Gilead Sciences, Inc.	2										AQ	AQ	AQ
Goldman Sachs Group, Inc.	76										AQ	AQ	AQ
Goodrich Corporation											NR	NR	NR
Goodyear Tire & Rubber	38										AQ	AQ	AQ
Google Inc.	58			0	Y						NR	AQ	AQ
H&R Block, Inc.	13										AQ	AQ	AQ
H.J. Heinz Company	91	911,395	97	91	Y	Y					AQ	AQ	AQ
Halliburton Company	53	3,436,675	59	225	Y	Y				Y	AQ	AQ	AQ
Harley-Davidson											NR	NR	NR
Harman International Industries, Inc											X	DP	NR
Harrah's Entertainment											NR	NR	IN
Hartford Financial Services Group Inc.	90	144,011	162	5	Y	Y				Y	IN	AQ	AQ
Hasbro Inc.											NR	NR	NR
Hercules Inc.	44										NR	IN	AQ
Hershey Company, The											NR	NR	DP
Hess Corporation[6]	37	6,395,439	49	202	Y	Y					AQ	AQ	AQ
Hewlett-Packard Company	88	1,518,107	81	15	Y	Y			Y	Y	AQ	AQ	AQ
Home Depot, Inc.	12										AQ	AQ	AQ
Honeywell International Inc.	40										IN	IN	AQ
Hospira Inc.											AQ	AQ	NR
Host Hotels & Resorts											X	X	NR
Hudson City Bancorp											X	X	IN
Humana Inc.	57										AQ	AQ	AQ
Huntington Bancshares	0										AQ	AQ	AQ
IAC/InterActive Corporation											X	DP	DP
Illinois Tool Works, Inc.	25										AQ	AQ	AQ
IMS Health Inc.[4]											NR	NR	DP
Ingersoll-Rand Co. Ltd.[4]	34	799,745	103	91	Y	Y					IN	AQ	AQ
Integrys Energy Group	49	9,516,619	40	925	Y						AQ	AQ	AQ
Intel Corporation	87	3,678,866	58	96	Y	Y				Y	AQ	AQ	AQ
Intercontinental Exchange Inc.											X	X	DP
International Business Machines Corporation	92	2,865,118	65	29	Y	Y					AQ	AQ	AQ
International Flavors & Fragrances Inc.											NR	NR	NR

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 3						CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]	Scope 1	Scope 2	Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
International Game Technology											NR	NR	NR
International Paper	55	13,063,214	36	597	Y	Y				Y	AQ	AQ	AQ
Interpublic Group	23										NR	IN	AQ
Intuit Inc.[6]	26	104,474	171	22	Y	Y	Y	Y	Y	Y	NR	NR	AQ
ITT Corporation	38	343,530	139	38	Y	Y				Y	AQ	AQ	AQ
Jabil Circuit											NR	AQ	NR
Jacobs Engineering Group											X	X	NR
Janus Capital Group	95										DP	AQ	AQ
JC Penney Company Inc.	57	1,172,016	90	59	Y	Y				Y	AQ	AQ	AQ
JDS Uniphase Corporation	64	54,460	185	39	Y	Y					DP	DP	AQ
Johnson & Johnson	74	923,151	96	15	Y	Y	Y	Y	Y	Y	AQ	AQ	AQ
Johnson Controls Inc.	91	1,656,977	79	48	Y	Y				Y	AQ	AQ	AQ
Jones Aparel Group											NR	NR	NR
JPMorgan Chase & Co.	71										AQ	AQ	AQ
Juniper Networks	89	38,255	189	13	Y	Y				Y	AQ	AQ	AQ
KB Home[6,7]	45	1,074,200	92	389							IN	IN	AQ
Kellogg Company[6]	54	1,175,000	89	100	Y	Y					AQ	AQ	AQ
KeyCorp											NR	NR	NR
Kimberly-Clark Corporation	88	6,201,391	51	340	Y	Y			Y	Y	AQ	AQ	AQ
Kimco Realty											X	NR	NR
King Pharmaceuticals											NR	NR	NR
KLA-Tencor Corporation											NR	NR	NR
Kohl's Corporation	56	780,226	104	47	Y	Y			Y		NR	NR	AQ
Kraft Foods	73	2,532,930	66	68	Y	Y					X	AQ	AQ
Kroger	15										IN	AQ	AQ
L-3 Communications Holdings											NR	NR	NR
Laboratory Corporation of America Holding											NR	NR	NR
Legg Mason	89	18,503	195	4	Y	Y			Y	Y	X	DP	AQ
Leggett & Platt											IN	DP	DP
Lehman Brothers Holdings Inc.	67										DP	AQ	AQ
Lennar Corporation											NR	NR	DP
Leucadia National Corporation											X	X	NR
Lexmark International, Inc.	74	203,000	153	41	Y	Y				Y	AQ	AQ	AQ
Limited Brands Inc.	54	422,672	131	42	Y	Y			Y	Y	NR	AQ	AQ
Lincoln National											DP	DP	NR
Linear Technology Corporation											NR	NR	NR
Liz Claiborne Inc.	21										AQ	AQ	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 3					CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]	Scope 1	Scope 2	Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
Lockheed Martin Corporation											IN	IN	DP
Loew's Corporation											NR	NR	DP
Lowe's Companies Inc.											IN	DP	NR
LSI Corporation[6]	59	69,478	181	27	Y	Y					NR	AQ	AQ
M&T Bank Corporation	67										NR	AQ	AQ
Macy's Inc.	41										X	X	AQ
Manitowoc Co.											X	X	N
Marathon Oil Corporation	28	19,660,000	27	305	Y	Y					AQ	AQ	AQ
Marriott International, Inc.	54	2,982,878	63	229	Y	Y					AQ	NR	AQ
Marsh & McLennan[5]											AQ	AQ	AQ(L)
Marshall & Ilsley Corporation[5]											AQ	AQ	AQ(L)
Masco Corporation	43	615,582	113	52	Y	Y					AQ	AQ	AQ
Mattel Inc.	44	225,960	150	38	Y	Y					NR	AQ	AQ
MBIA Inc.	37										AQ	AQ	AQ
McCormick & Company	76										NR	AQ	AQ
McDonald's Corporation	42										AQ	AQ	AQ
McGraw-Hill	31										IN	IN	AQ
McKesson Corporation	35										IN	AQ	AQ
MeadWestvaco Corporation	60	3,255,354	60	471	Y	Y					AQ	AQ	AQ
Medco Health Solutions Inc.	65	67,797	182	2	Y	Y					IN	AQ	AQ
Medtronic Inc.	36	251,074	147	19	Y	Y					AQ	AQ	AQ
MEMC Electronic Materials											X	X	NR
Merck & Co., Inc.	58	1,362,484	85	56	Y	Y					AQ	AQ	AQ
Meredith Corporation	2										DP	DP	AQ
Merrill Lynch & Co., Inc.	98	376,766	136	6	Y	Y				Y	AQ	AQ	AQ
Metlife Inc.											DP	NR	NR
MGIC Investment	2										AQ	AQ	AQ
Microchip Technology											X	X	NR
Micron Technology											NR	DP	DP
Microsoft Corporation	71	167,580	160	3	Y	Y				Y	AQ	AQ	AQ
Millipore Corporation	68	195,727	155	128	Y	Y					AQ	AQ	AQ
Molex Inc.	52										IN	AQ	AQ
Molson Coors Brewing Company	90	1,254,563	87	151	Y	Y					AQ	AQ	AQ
Monsanto Company	41	2,145,000	74	251	Y	Y				Y	IN	AQ	AQ
Monster Worldwide											NR	NR	NR
Moody's Corporation[5]											IN	AQ	AQ(L)
Morgan Stanley & Co. Inc	82	208,662	152	6	Y	Y	Y			Y	AQ	AQ	AQ
Motorola Inc.	78	375,328	137	10	Y	Y					AQ	AQ	AQ
Murphy Oil											NR	NR	DP
Mylan Inc.											NR	NR	NR
Nabors Industries Ltd.											NR	NR	DP
National City Corporation	33										AQ	AQ	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 3					CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]	Scope 1	Scope 2	Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
National Oilwell Varco Inc											NR	NR	NR
National Semiconductor											NR	AQ	NR
NetApp (formerly known as Network Appliance)[5]											X	X	AQ(L)
Newell Rubbermaid Co.	10										NR	AQ	AQ
Newmont Mining Corporation	66	3,869,564	56	700	Y	Y					AQ	AQ	AQ
News Corporation	72	583,964	116	18	Y	Y		Y		Y	IN	AQ	AQ
NICOR Inc.											AQ	AQ	DP
NIKE Inc.	56										AQ	AQ	AQ
NiSource Inc.	74	27,334,764	22	3,443	Y	Y	Y				AQ	AQ	AQ
Noble Corporation											AQ	DP	DP
Noble Energy Inc											NR	NR	NR
Nordstrom											X	X	NR
Norfolk Southern Corporation	16										IN	DP	AQ
Northern Trust Corporation	50	78,944	178	22	Y	Y				Y	AQ	AQ	AQ
Northrop Grumman Corporation	30										AQ	AQ	AQ
Novell Inc.											NR	NR	NR
Novellus Systems	66										AQ	NR	AQ
Nucor Corporation											NR	DP	NR
NVIDIA Corporation	64	19,530	197	0	Y					Y	NR	AQ	AQ
NYSE Euronext											NR	AQ	NR
Occidental Petroleum Corporation	43	15,800,000	30	841	Y	Y					AQ	AQ	AQ
Office Depot	58	485,500	122	31	Y	Y			Y		AQ	AQ	AQ
OfficeMax Incorporated											NR	NR	NR
Omnicom Group	31										AQ	AQ	AQ
Oracle Corporation	61										AQ	AQ	AQ
PACCAR Inc.											NR	NR	DP
Pactiv Corporation											NR	DP	DP
Pall Corporation	47	133,800	163	59	Y	Y					NR	DP	AQ
Parker-Hannifin	38										AQ	AQ	AQ
Patterson Companies, Inc.											NR	NR	NR
Paychex Inc.											DP	NR	NR
Peabody Energy											X	IN	IN
Pepco Holdings, Inc.	51										IN	IN	AQ
Pepsi Bottling Group	60	705,725	180	0	Y	Y			Y		NR	AQ	AQ
PepsiCo, Inc.	90	3,802,514	57	96	Y	Y					AQ	AQ	AQ
PerkinElmer	56	55,998	184	31	Y	Y				Y	AQ	AQ	AQ
Pfizer Inc.	67	2,194,173	73	45	Y	Y					AQ	AQ	AQ
PG&E Corporation	51	2,353,152	69	178	Y	Y					AQ	AQ	AQ
Pinnacle West Capital	60	17,671,341	29	5,015	Y	Y					AQ	AQ	AQ
Pitney-Bowes	55	101,792	173	17	Y	Y					NR	DP	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 3						CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]	Scope 1	Scope 2	Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
Plum Creek Timber Company, Inc.	64	35,149	192	21	Y	Y			Y	Y	NR	NR	AQ
PNC Financial Services Group, Inc.[5]											AQ	AQ	AQ(L)
Polo Ralph Lauren Corporation											X	X	NR
PPG Industries	80	6,927,127	46	618	Y	Y				Y	AQ	AQ	AQ
PPL Corporation	54	31,400,000	21	4,832					Y		AQ	AQ	AQ
Praxair, Inc.	74	14,168,433	33	1,507	Y	Y	Y		Y	Y	AQ	AQ	AQ
Precision Castparts											X	X	IN
Principal Financial Group											NR	NR	IN
Procter & Gamble Company	67	6,347,000	50	83	Y	Y					AQ	AQ	AQ
Progress Energy Inc.[6,8]	66	53,062,972	13	5,797	Y						AQ	AQ	AQ
Progressive Corporation	47										DP	AQ	AQ
ProLogis	97	9,220	198	1	Y	Y				Y	AQ	AQ	AQ
Prudential Financial, Inc.	73	100,990	174	3	Y	Y					DP	AQ	AQ
Public Service Enterprise Group Incorporated	69	25,827,743	23	2,009	Y	Y					AQ	AQ	AQ
Public Storage											NR	NR	DP
Pulte Homes Inc.											NR	NR	NR
QLogic Corporation											NR	DP	DP
QUALCOMM Inc.[6]	74	35,590	191	4	Y				Y		AQ	AQ	AQ
Quest Diagnostics											NR	NR	IN
Questar Corporation	32	2,500,000	67	917	Y	Y					X	AQ	AQ
Qwest Communications International Inc.	72	1,342,007	86	97	Y	Y			Y	Y	AQ	AQ	AQ
R.R. Donnelley & Sons											NR	DP	DP
RadioShack Corporation											NR	DP	NR
Range Resources Corporation	18										X	X	AQ
Raytheon Company	43	661,930	111	31	Y	Y					AQ	AQ	AQ
Regions Financial Corporation											X	DP	NR
Reynolds American Inc.	75	370,750	138	41	Y	Y					NR	AQ	AQ
Robert Half International											IN	IN	IN
Rockwell Automation Inc.	41	90,815	176	18	Y	Y					NR	AQ	AQ
Rockwell Collins											AQ	AQ	AQ(L)
Rohm and Haas Company	26										AQ	AQ	AQ
Rowan Companies, Inc.	17										NR	NR	AQ
Ryder System	50	195,610	156	33	Y	Y					IN	DP	AQ
SAFECO Corporation											AQ	AQ	NR
Safeway Inc.											NR	NR	IN
SanDisk Corporation											X	DP	DP
Sara Lee Corporation	86	871,608	99	71	Y	Y					AQ	AQ	AQ
Schering-Plough	61	558,349	119	44	Y	Y				Y	AQ	AQ	AQ
Schlumberger Limited[6]	29	3,200,000	61	137	Y	Y					AQ	AQ	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 1	Scope 2	Scope 3				CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]			Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
Sealed Air Corporation	29	749,503	105	161	Y	Y					IN	AQ	AQ
Sears Holdings Corporation											DP	DP	NR
Sempra Energy											AQ	AQ	NR
Sherwin-Williams	54	600,548	115	75	Y	Y					AQ	AQ	AQ
Sigma-Aldrich	27	126,126	164	62	Y	Y					AQ	NR	AQ
Simon Property Group	88	802,941	102	220	Y	Y		Y			AQ	AQ	AQ
SLM Corporation											DP	DP	NR
Smith International[6]	27	384,000	135	44	Y						X	NR	AQ
Snap-On Inc.											NR	NR	DP
Southern Company[6]	41	151,000,000	2	9,835	Y						AQ	AQ	AQ
Southwest Airlines											IN	DP	DP
Sovereign Bancorp											AQ	NR	DP
Spectra Energy Corporation	64	13,201,430	35	2,784	Y	Y					X	X	AQ
Sprint Nextel Corporation[6]	68	2,226,810	72	56	Y	Y					IN	AQ	AQ
St Jude Medical											DP	DP	DP
Stanley Works	83	230,607	149	51	Y	Y	Y			Y	NR	AQ	AQ
Staples Inc.	55										AQ	AQ	AQ
Starbucks Corporation	71	295,000	142	31	Y	Y					AQ	AQ	AQ
Starwood Hotels & Resorts	66										NR	AQ	AQ
State Street Corporation	60	114,822	169	14	Y	Y					AQ	AQ	AQ
Stryker Corporation											AQ	NR	DP
Sun Microsystems	74	202,054	154	15	Y	Y				Y	NR	AQ	AQ
Sunoco Inc.											NR	NR	NR
SunTrust Banks, Inc.[5]											X	X	AQ(L)
Supervalu Inc.											NR	NR	NR
Symantec Corporation	64	119,000	166	20	Y	Y				Y	NR	AQ	AQ
SYSCO Corporation	2										IN	AQ	AQ
T. Rowe Price Group	51										AQ	AQ	
Target Corporation	57	2,874,017	64	45	Y	Y					AQ	AQ	AQ
TECO Energy											AQ	IN	IN
Tellabs Inc.	57										NR	NR	AQ
Tenet Healthcare Corporation											IN	IN	DP
Teradata Corporation	28										X	X	AQ
Teradyne Inc.	78	6,164	199	6	Y	Y	Y			Y	NR	AQ	AQ
Terex Corporation											X	X	NR
Tesoro Corporation											X	X	DP
Texas Instruments Incorporated	66										AQ	AQ	AQ
Textron Inc.	23										NR	AQ	AQ
The New York Times Company	23										AQ	AQ	AQ
Thermo Fisher Scientific Inc.	43										X	NR	AQ
Tiffany & Company	63										AQ	AQ	AQ
Time Warner Inc.[6]	23	829,464	101	17	Y	Y					IN	IN	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 1	Scope 2	Scope 3				CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]			Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
Titanium Metals Corporation											X	X	DP
TJX Companies Inc.											NR	IN	IN
Torchmark Corporation											NR	DP	NR
Trane Inc. (see Ingersoll Rand)[4]	54										X	X	AQ
Transocean Inc.	46										AQ	AQ	AQ
Travelers Companies. Inc	87	73,679	179	3	Y	Y					AQ	AQ	AQ
TSYS (formerly known as Total System Services)	53										X	X	AQ
Tyco Electronics Ltd.	27										X	X	AQ
Tyco International Ltd.	49										IN	AQ	AQ
Tyson Foods											DP	DP	DP
U.S. BanCorp	50	449,362	127	22	Y	Y				Y	AQ	AQ	AQ
Union Pacific Corporation	32										IN	IN	AQ
Unisys Corporation	56	170,828	158	32	Y	Y				Y	AQ	AQ	AQ
United Parcel Service, Inc.[6,8]	63	8,243,743	43	167	Y	Y					AQ	AQ	AQ
United States Steel Corporation	52	48,341,091	14	2,865	Y	Y					AQ	AQ	AQ
United Technologies Corporation	52	2,228,085	71	41	Y	Y				Y	AQ	AQ	AQ
UnitedHealth Group Inc	50			0	Y	Y					AQ	AQ	AQ
Unum Group	66	39,394	186	5	Y	Y					AQ	NR	AQ
UST Inc.											NR	NR	NR
V.F. Corporation											NR	NR	DP
Valero Energy Corporation											AQ	NR	NR
Varian Medical Systems											X	X	NR
Verisign Inc.											X	NR	NR
Verizon Communications Inc.	63	7,550,076	44	81	Y	Y					AQ	AQ	AQ
Viacom Inc.	35										AQ	AQ	AQ
Vornado Realty Trust	65										NR	NR	AQ
Vulcan Materials											NR	NR	NR
W.W. Grainger, Inc.	50										AQ	IN	AQ
Wachovia Corporation[6]	71	705,787	107	10	Y	Y					AQ	AQ	AQ
Walgreen Company	19										IN	IN	AQ
Wal-Mart Stores, Inc.	87	20,240,815	26	54	Y	Y					AQ	AQ	AQ
Walt Disney Company	46										AQ	AQ	AQ
Washington Mutual	64	305,139	141	12	Y	Y					AQ	AQ	AQ
Washington Post											X	X	NR
Waste Management Inc.[6]	69	435,738	130	33	Y	Y					AQ	AQ	AQ
Waters Corporation											NR	DP	IN
Watson Pharmaceuticals											NR	NR	NR
Weatherford International Ltd.											NR	AQ	NR
WellPoint, Inc.											DP	DP	DP
Wells Fargo & Company	97	581,763	118	15	Y	Y				Y	AQ	AQ	AQ

Scores and Emissions

Company	Carbon Disclosure Leadership Index Score %	Emissions			Scope 1	Scope 2	Scope 3				CDP Response Status		
		Total Amount[1]	Rank[2]	Intensity[3]			Products	Supply Chain	Logistics & Distribution	Business Travel	CDP4	CDP5	CDP6
Wendy's International											NR	NR	DP
Western Union Company											X	DP	NR
Weyerhaeuser	47	7,500,000	45	460	Y	Y					AQ	AQ	AQ
Whirlpool Corporation	76	905,568	98	47	Y	Y	Y				NR	NR	AQ
Whole Foods Market	37										X	IN	AQ
William Wrigley Jr. Company	77	316,630	140	59	Y	Y					AQ	AQ	AQ
Williams Companies	33	17,740,000	28	1,680	Y	Y					AQ	AQ	AQ
Windstream Corporation	19										X	DP	AQ
Wyeth	49	1,152,701	91	51	Y	Y					AQ	AQ	AQ
Wyndham Worldwide	1										X	AQ	AQ
Xcel Energy Inc	66	60,567,132	11	6,036	Y	Y				Y	AQ	AQ	AQ
Xerox Corporation	85	394,909	133	23	Y	Y	Y				AQ	AQ	AQ
Xilinx Inc	56										AQ	AQ	AQ
XL Capital	65	39,312	187	4		Y	Y	Y	Y	Y	NR	AQ	AQ
XTO Energy Inc.	32	5,103,119	53	926	Y	Y					NR	AQ	AQ
Yahoo! Inc.	63	273,100	144	39	Y	Y				Y	NR	AQ	AQ
Yum! Brands Inc											NR	NR	NR
Zimmer Holdings	23										AQ	AQ	AQ
Zions Bancorp	30										AQ	AQ	AQ

Emissions are for latest period reported (usually 2007). Where no "Y" appears under Disclosure, the company did not break down its emissions according to GHG Protocol Scopes 1, 2, and 3. The companies listed on page 109 provided emissions data but did not make their CDP6 responses public; their emissions data are included in aggregate rankings but not disclosed individually.

1 Scopes 1 and 2, or total global emissions where companies reported only a total figure; units in metric tons (000's).

2 Rank in descending order of Scope 1 and 2 total emissions or total emissions where companies reported in only a total figure. Please note that this ranking applies only to companies that reported for public disclosure; companies that reported for CDP purposes could have had higher emissions.

3 Disclosed Scopes 1 and 2 or emissions totals divided by annual US$ million revenues. Revenues based on figures reported to CDP, or if not provided, from publicly reported data.

4 Trane Inc. was acquired by Ingersoll-Rand Co. on June 5, 2008. For the purposes of this analysis, Trane Inc. submitted a separate survey.

5 A few companies also submitted amended responses after the analysis cut-off date; these and other late responses, if public, appear on the CDP website. As of this publishing date these companies include: Bank of America Corporation, Marsh & McLennan, Marshall & Ilsley Corporation, Moody's Corporation, NetApp (formerly known as Network Appliance), PNC Financial Services Group, Inc. and SunTrust Banks, Inc.

6 This company submitted emissions information in either an incorrect format or incorrect location in the survey; therefore, it was not awarded credit for disclosure in its CDLI Index score.

7 This company disclosed total CO_2 emissions but was unable to convey scope level information.

8 This company, which appears on the CDLI, submitted responses to specific emissions disclosure questions in an incorrect format, which precluded those responses from being scored. As this company scored highly enough for inclusion on the CDLI, its responses to those select emissions disclosure questions — though provided in incorrect form were collected and analyzed for reference in Figure 6 (Carbon Disclosure Leadership Index for carbon-intensive sectors). The inclusion of this information did not lead to any rescoring of the responses.

9 El Paso's total emissions and intensity figures were revised from the initial printing of the CDP6 publication.

Companies answering CDP information requests are encouraged to make their responses public. They are, however, given the option to respond without authorizing public disclosure. In these cases, the responses can only be seen by CDP's signatory investors. Non-public responses are not eligible for inclusion in the CDLI.

Companies answering CDP6 but not authorizing public disclosure of their response.

Allegheny Technologies Inc
Altera Corporation
Ambac Financial Group
Amgen Inc.
Autodesk Inc.
Baker Hughes
Ball Corporation
Bank of New York Mellon Corporation
Bed Bath & Beyond
BMC Software
Boston Scientific
CB Richard Ellis Group
CBS Corporation
Charles Schwab Corporation
CIGNA Corporation
CMS Energy
Compuware Corporation
Convergys Corporation
C.R. Bard Inc.
Danaher Corporation
Darden Restaurants
Dillard's Inc.
Edison International
Equifax Inc.
Fifth Third Bancorp
Fiserv, Inc.
Forest Laboratories
General Electric Company
Genzyme Corporation
Goldman Sachs Group, Inc.
Goodyear Tire & Rubber
H&R Block, Inc.
Hercules Inc.
Home Depot, Inc.
Illinois Tool Works, Inc.
Interpublic Group
Janus Capital Group
Lehman Brothers Holdings Inc.
Liz Claiborne Inc.
M&T Bank Corporation
MBIA Inc.
McCormick & Company
McDonald's Corporation
MGIC Investment
National City Corporation
Newell Rubbermaid Co.
Novellus Systems
Omnicom Group
Parker-Hannifin
Pepco Holdings, Inc.
Rohm and Haas Company
Rowan Companies, Inc.
Staples Inc.
Starwood Hotels & Resorts
SYSCO Corporation
T. Rowe Price Group
Tellabs Inc.
Textron Inc.
Tiffany & Company
Trane Inc.(see Ingersoll Rand)
Transocean Inc.
Tyco International Ltd.
Union Pacific Corporation
Viacom Inc.
Vornado Realty Trust
W.W. Grainger, Inc.
Whole Foods Market
Windstream Corporation
Wyndham Worldwide
Xilinx Inc
Zions Bancorp

9

Appendix II

CDP 6 Questionnaire and CDLI Scoring Methodology

The CDP questionnaire has been developed over six years through consultation with signatory investors, corporations and other stakeholders. The CDP6 questionnaire represents a best practice framework for the information companies should measure and report regarding the impact of climate change on their business.

Glossary of key terms

BRIC	Brazil, Russia, India and China
C&BP	Construction & Building Products
CDLI	Carbon Disclosure Leadership Index
CDM	Clean Development Mechanism — Kyoto Protocol carbon reduction facility
CDP	Carbon Disclosure Project
E&P	Energy & Power
EC	European Community
EU ETS	European Union Emissions Trading Scheme
FTSE	Financial Times & Stock Exchange
GHG	Greenhouse Gases
IOC	International Oil Companies
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
JI	Joint Implementation — Kyoto Protocol carbon reduction facility
LEED	Leadership in Energy & Environmental Design — US construction standards
M&A	Mergers and Acquisitions
NGOs	Non-Government Organizations
NOC	National Oil Companies
OPEC	Organization of the Petroleum Exporting Countries
R&D	Research & Development
RoW	Rest of the World
tCO_2-e	Metric tons of carbon dioxide equivalent
TMT	Technology, Media & Telecommunications

Methodology

The CDP6 questionnaire and guidance

CDP has used a similar questionnaire for CDP6 to those used in prior years, building on the experience of data collection and reporting in many of the companies covered by the process.

To encourage clarity in responses, the questionnaire was split into four sections covering risks and opportunities; emissions accounting; performance against targets; and governance. The main additional questions in CDP6 (compared to CDP5) are in the areas of data accuracy and stakeholder/ policymaker engagement. Respondents were also provided with a detailed set of guidance notes highlighting the content that an ideal response to each question might include.

The questionnaire is included in Appendix II of this report, while the guidance notes are available on the CDP website at www.cdproject.net

Overview of scoring and weighting system

The Climate Disclosure Leadership Index has again been produced based on the weighted scoring of companies' responses to the individual questions in the questionnaire. The methodology and weightings were developed jointly between CDP and Pricewaterhouse-Coopers LLP in the UK.

A number of important refinements were made to the scoring system used in CDP6, compared to the approach used in previous years' reports, in particular in relation to the greater disclosure by companies outside of traditionally carbon-intensive sectors.

In the questionnaire for CDP5, companies in non-carbon-intensive sectors were invited to answer only a subset of the questions posed to companies in carbon-intensive sectors, and their CDLI scores were based only on these questions. For CDP6, all companies were encouraged to provide at least a minimum level of response to every question; companies in carbon-intensive sectors were asked to answer all questions, whereas non-intensive companies were asked to answer 'minimum requirement' questions and also invited to answer 'comprehensive' questions if they so chose.

Hence, carbon-intensive sectors have been scored on the basis of all questions (with a total theoretical maximum of 146 points, which is then adjusted to a score out of 100%), while non-carbon-intensive sectors are scored on the basis of only the minimum requirement (a maximum of 85 points adjusted to a score out of 100%), with extra credit given for 'comprehensive' answers. A company in a non-carbon-intensive sector that gives a high-scoring comprehensive answer can theoretically achieve more than 85 points for its answer, in which case this is adjusted down to the maximum for the relevant section. CDP believes that this approach is more consistent with the importance that is now placed on climate change across all sectors.

The impact of this change is that companies in non-carbon-intensive sectors have tended to achieve higher overall weighted scores, despite achieving slightly lower unweighted scores It should be remembered, therefore, that comparisons within different sectors (intensive/non-intensive) are perhaps more meaningful than comparisons across sectors.

Data quality and accuracy

All data presented and reviewed in this report is self-reported by the CDP6 respondent companies and has not been verified by either CDP or PricewaterhouseCoopers for the purposes of this report (although some companies have provided verification statements commissioned for their own purposes). Where responses included material that appeared incorrect or confusing, attempts were made to clarify these directly with CDP6 respondent companies, but no formal due diligence or any other form of assurance has been undertaken by either CDP or Pricewaterhouse-Coopers on the responses or underlying data.

How response quality is assessed

The scoring system is based on quantitative and qualitative assessment of responses; in broad terms this takes into account whether a question has been answered at all and an analysis of the extent and quality of the response. Inevitably, there is an inherent element of subjectivity in the scoring. We have sought to mitigate this through the provision of detailed guidance on the scoring process and through independent reviews and benchmarking of the scoring process.

The scoring system focuses on disclosure, not climate change performance *per se*. In general, a good score can be achieved by following the guidance issued by CDP and by providing comprehensive responses to individual questions. Particularly good responses are typically both specific and detailed.

For example, this is an example of a response that would attract full points under Question 1(a)(i) "How is your company exposed to regulatory risks related to climate change?"

The majority of our power plants are subject to the EU ETS. The present NAP II proposals cause an additional financial burden for [company] in the form of insufficient allocation equivalent to 30-40% of needed emission rights.

The European Commission adopted a new set of climate-protection measures for the period from 2013 to 2020. They include binding goals for all EU member states regarding the reduction of greenhouse gas emissions and the share of electricity consumption accounted for by renewable energy. But the details of an international or European emissions trading system remain largely unclear. However, we anticipate that costs will be much higher than in the current trading period, which will last until 2012. We intend to continue reducing CO_2 emissions and make our power generation portfolio more flexible by investing in power plants in the future. Furthermore, we limit CO_2 risks through climate-protection projects in developing and newly industrializing countries within the scope of the Kyoto "Clean Development Mechanism" (CDM) and "Joint Implementation" (JI).

Presently we see no significant pressure arising from national or international targets on demand management. Our investment decisions already include the influence of energy efficiency programs. We believe that gas consumption will be much more affected than electricity consumption.

Compared to CDP5 our views have not changed significantly especially as the uncertainty concerning the period beyond 2012 still prevails.

Where responses score poorly, this is generally because of one or all of the following:

- A response does not fully answer the question asked;
- A response is insufficiently specific to the respondent (i.e. it could apply to any company);
- A response does not provide relevant data or specific information to support the statements being made.

Defining emissions

The classification of emissions used by CDP in the context of questions about emissions measurement, management and reporting follows the classification adopted by the GHG Protocol. For ease of reference we reproduce a summary of these definitions below .

Scope 1: Direct GHG emissions

Companies report GHG emissions from sources they own or control as Scope 1. Direct GHG emissions are principally the result of the following types of activities undertaken by the company. Examples include (i) the generation of electricity, heat, or steam from stationary sources; (ii) physical or chemical processing; (iii) emissions from the combustion of fuels in company owned/controlled mobile combustion sources; and (iv) emissions that result from intentional or unintentional releases during business operations.

Scope 2: Electricity indirect GHG emissions

Companies report the emissions from the generation of purchased electricity that is consumed in owned or controlled equipment or operations as Scope 2. For many companies, purchased electricity represents the largest component of GHG emissions if they do not have their own on-site power generation capability.

Scope 3: Other indirect GHG emissions

In broad terms, Scope 3 emissions could include (i) supply chain emissions from the extraction, production and transport of raw materials and fuels; (ii) employee business travel; (iii) employee commuting; (iv) transport of finished goods and waste products; and (v) emissions associated with product use and disposal. The definition of Scope 3 emissions is more open to interpretation but provides an opportunity for companies to be innovative in GHG management.

Note on difference in samples between response rates and analysis

Several companies responded to CDP after the deadline for information to be included in the analysis. These responses were still considered in the response rate analysis in Chapter 3, and all response rate data listed in sector Key Facts boxes is based on this analysis. However, the analysis of CDLI scores, disclosure levels and responses to specific questions, including the disclosure waterfalls, does not include these late responding companies. We do not believe this has made a material difference to sector performance.

CDP6 Questionnaire

1 Risks and Opportunities

Objective: To identify strategic risks and opportunities and their implications.

a **Risks:** (CDP5 Question 1a)

i **Regulatory Risks:** How is your company exposed to regulatory risks related to climate change?

ii **Physical Risks:** How is your company exposed to physical risks from climate change?

iii **General Risks:** How is your company exposed to general risks as a result of climate change?

iv **Risk Management:** Has your company taken or planned action to manage the general and regulatory risks and/or adapt to the physical risks you have identified?

v **Financial and Business Implications:** How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?

b **Opportunities:** (CDP5 Question 1b)

i **Regulatory Opportunities:** How do current or anticipated regulatory requirements on climate change offer opportunities for your company?

ii **Physical Opportunities:** How do current or anticipated physical changes resulting from climate change present opportunities for your company?

iii **General Opportunities:** How does climate change present general opportunities for your company?

iv **Maximizing Opportunities:** Do you invest in, or have plans to invest in products and services that are designed to minimize or adapt to the effects of climate change?

v **Financial and Business Implications:** How do you assess the current and/or future financial effects of the opportunities you have identified and how those opportunities might affect your business?

2 Greenhouse Gas (GHG) Emissions Accounting

Objective: To determine actual absolute Greenhouse Gas emissions.

The term GHG Protocol below refers to The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). This may be found on the GHG Protocol Website www.ghgprotocol.org

a **Accounting Parameters** (CDP5 Question 2a)

i **Reporting Boundary:** Please indicate the category that best describes the company, entities or group for which your response is prepared:
   a. Companies over which financial control is exercised — per consolidated audited Financial Statements.
   b. Companies over which operational control is exercised.
   c. Companies in which an equity share is held.
   d. Other (please provide details).

Please use the same approach for all answers.

ii **Reporting Year:** Please explicitly state the dates of the accounting year or period for which GHG emissions are reported.

iii **Methodology:** Please specify the methodology used by your company to calculate GHG emissions.

b Direct and Indirect Emissions — Scope 1 and 2 of the GHG Protocol (CDP5 Question 2b)

i Are you able to provide a breakdown of your direct and indirect emissions under Scopes 1 and 2 of the GHG Protocol and to analyse your electricity consumption? If so, please provide the following information together with a breakdown of the emissions reported under each category by country where possible. If not, please proceed to question 2b ii:

Scope 1 Direct GHG Emissions
a. Total global Scope 1 activity in metric tons CO_2-e emitted.
b. Total Scope 1 activity in metric tons CO_2-e emitted for Annex B countries.

Scope 2 Indirect GHG Emissions
c. Total global Scope 2 activity in metric tons CO_2-e emitted.
d. Total Scope 2 activity in metric tons CO_2-e emitted for Annex B countries.

Electricity consumption
e. Total global MWh of purchased electricity.
f. Total MWh of purchased electricity for Annex B countries.
g. Total global MWh of purchased electricity from renewable sources.
h. Total MWh of purchased electricity from renewable sources for Annex B countries.

ii If you are unable to detail your Scope 1 and Scope 2 GHG emissions and/or electricity consumption, please report the GHG emissions you are able to identify together with a description of those emissions.

c Other Emissions — Scope 3 of GHG Protocol: (CDP5 Question 2c)
How do you identify and/or measure Scope 3 emissions? Please provide where possible:
a. Details of the most significant Scope 3 sources for your company.
b. Details in metric tons CO_2-e of GHG emissions in the following categories:
i Employee business travel.
ii External distribution/logistics.
iii Use/disposal of company's products and services.
iv Company supply chain.
c. Details of the methodology you use to quantify or estimate Scope 3 emissions.

d External Verification (CDP5 Question 2a iii)

i Has the information reported in response to Questions 2b — c been externally verified or audited or do you plan to have the information verified or audited? If so:

ii Please provide a copy of the audit or verification statement or state your plans for verification.

iii Please specify the Standard or Protocol against which the information has been or will be audited or verified.

e Data Accuracy (New to CDP6)

Does your company have a system in place to assess the accuracy of GHG emissions inventory calculation methods, data processes and other systems relating to GHG measurement? If so, please provide details. If not, please explain how data accuracy is managed.

f Emissions History (CDP5 Question 2a iv)

Do the emissions reported for your last accounting year vary significantly compared to previous years? If so, please explain the reasons for the variations.

g **Emissions Trading** (CDP5 Question 4b)

i Does your company have facilities covered by the EU Emissions Trading Scheme? If so:
   a. Please provide details of the annual allowances awarded to your company in Phase I for each of the years from 1 January 2005 to 31 December 2007 and details of allowances allocated for Phase II commencing on 1 January 2008.
   b. Please provide details of actual annual emissions from facilities covered by the EU ETS with effect from 1 January 2005.
   c. What has been the impact on your company's profitability of the EU ETS?

ii What is your company's strategy for trading or participating in regional and/or international trading schemes (eg: EU ETS, RGGI, CCX) and Kyoto mechanisms such as CDM and JI projects?

h **Energy Costs** (CDP5 Question 4d)

i Please identify the total costs in US $ of your energy consumption e.g. from fossil fuels and electric power.

ii What percentage of your total operating costs does this represent?

iii What percentage of energy costs are incurred on energy from renewable sources?

3 Performance

Objective: To determine performance against targets and plans to reduce GHG emissions.

a **Reduction Plans** (CDP5 Questions 1d and 4a)

i Does your company have a GHG emissions reduction plan in place? If so, please provide details along with the information requested below. If there is currently no plan in place, please explain why.

ii What is the baseline year for the emissions reduction plan?

iii What are the emissions reduction targets and over what period do those targets extend?

iv What activities are you undertaking to reduce your emissions e.g.: renewable energy, energy efficiency, process modifications, offsets, sequestration etc? What targets have you set for each and over what timescales do they extend?

v What investment has been or will be required to achieve the targets and over what time period?

vi What emissions reductions and associated costs or savings have been achieved to date as a result of the plan?

b **Emissions Intensity** (CDP5 Question 4c)

i What is the most appropriate measurement of emissions intensity for your company?

ii Please state your GHG emissions intensity in terms of total tonnes of CO_2-e reported under Scope 1 and Scope 2 per US $m turnover and EBITDA for the reporting year.

iii Has your company developed emissions intensity targets? If so:
   a. Please state your emissions intensity targets.
   b. Please state what reductions in emissions intensity have been achieved against targets and over what time period.

   If not, please explain why.

c **Planning** (CDP5 Question 4e)

Do you forecast your company's future emissions and/or energy use? If so:

i *Please provide details of those forecasts, summarize the methodology used and the assumptions made.*

ii *How do you factor the cost of future emissions into capital expenditure planning?*

iii *How have these considerations made an impact on your investment decisions?*

4 Governance

Objective: To determine responsibility and management approach to climate change.

a **Responsibility** (CDP5 Question 5a)

Does a Board Committee or other executive body have overall responsibility for climate change?
If not, please state how overall responsibility for climate change is managed. If so:

i Which Board Committee or executive body has overall responsibility for climate change?

ii What is the mechanism by which the Board or other executive body reviews the company's progress and status regarding climate change?

b **Individual Performance** (CDP5 Question 5b)

Do you assess or provide incentive mechanisms for individual management of climate change issues including attainment of GHG targets? If so, please provide details.

c **Communications** (New to CDP6)

Please indicate whether you publish information about the risks and opportunities presented to your company by climate change, details of your GHG emissions and plans to reduce emissions through any of the following communications:

i *the company's Annual Report or other statutory filings, and/or*

ii *formal communications with shareholders or external parties, and/or*

iii *voluntary communications such as Corporate Social Responsibility reporting.*

If so, please provide details and a link to the document(s) or a copy of the relevant excerpt.

d **Public Policy** (New to CDP6)

Do you engage with policymakers on possible responses to climate change including taxation, regulation and carbon trading? If so, please provide details.

CDLI scoring methodology

1 Risks and Opportunities

Question Number	Question	Response type	Max Points	Guidance
1(a)(i) Regulatory Risks	How is your company exposed to regulatory risks related to climate change?	Variable	3	[score under the standard scale for variable responses]
1(a)(ii) Physical Risks	How is your company exposed to physical risks from climate change?	Variable	3	[score under standard scale. Responses should be tailored and specific to the respondent's business. No points awarded if mentioned elsewhere and not here]
1(a)(iii) General Risks	How is your company exposed to general risks as a result of climate change?	Variable	3	[score under standard scale. No points for regulatory or physical risks. Must be others e.g. reputation, third party action, civil unrest, expensive inputs]
1(a)(iv) Risk Management	Has your company taken or planned action to manage the general and regulatory risks and/or adapt to the physical risks you have identified?	Variable	3	[score under standard scale — same points available whether answer is yes or no]
1(a)(v) Financial and Business implications	How do you assess the current and/or future financial effects of the risks you have identified and how those risks might affect your business?	Variable	3	[score under standard scale — same points awarded whether answer is yes or no]
1(b)(i) Regulatory Opportunities	How do current or anticipated regulatory requirements on climate change offer opportunities for your company?	Variable	3	[score under standard scale — no points for reductions/mitigations, only for actual opportunities]
1(b)(ii) Physical Opportunities	How do current or anticipated physical changes resulting from climate change present opportunities for your company?	Variable	3	[score under standard scale — no points for reductions/mitigations, only for actual opportunities]
1(b)(iii) General Opportunities	How does climate change present general opportunities for your company?	Variable	3	[score under standard scale — no points for regulatory or physcial risks; no points for reductions/mitigations, only for actual opportunities]
1(b)(iv) Maximizing Opportunities	Do you invest in, or have plans to invest in products and services that are designed to minimize or adapt to the effects of climate change?	Variable	3	[score under standard scale — same points awarded whether answer is yes or not, but need specific commercial upside plans in place to score high points. Investment in either external products or in external mitigation is OK]
1(b)(v) Financial and Business Implications	How do you assess the current and/or future financial effects of the opportunities you have identified and how those opportunities might affect your business?	Variable	3	[score under standard scale — same points awarded whether answer is yes or no]
		Total points available	**30**	

2 Greenhouse Gas (GHG) Emissions Accounting

Question Number	Question	Response type	Max Points	Guidance
2(a)(i) Reporting Boundary	Please indicate the category that best describes the company, entities or group for which your response is prepared.	Binary	1	[1 for any answer, 0 for none]
2(a)(ii) Reporting Year	Please explicitly state the dates of the accounting year or period for which GHG emissions are reported.	Binary	1	[1 for any answer, 0 for none]
2(a)(iii) Methodology	Please specify the methodology used by your company to calculate GHG emissions.	Variable	3	[score under standard scale]
2(b)(i) Scope 1 and Scope 2 of GHG Protocol	a. Total global Scope 1 activity in Metric Tons CO_2-e emitted.	Binary	2	[2 for CO_2e or material "other", 0 for none/irrelevant other]
	b. Total Scope 1 activity in Metric Tons CO_2-e emitted for Annex B countries.	Binary	1	[1 for CO_2e or material "other", 0 for none/irrelevant other. 1 point if response is "0" and the company does not operate in Annex B countries]
	By country — Scope 1 activity in metric tons of CO_2-e by individual country.	Binary	1	[1 for CO_2e or material "other", 0 for none/irrelevant other]
	c. Total global Scope 2 activity in metric tons CO_2-e emitted.	Binary	2	[2 for CO_2e or material "other", 0 for none/irrelevant other]
	d. Total Scope 2 activity in metric tonnes CO_2-e emitted for Annex B countries.	Binary	1	[1 for CO_2e or material "other", 0 for none/irrelevant other. 1 point if response is "0" and the company does not operate in Annex B countries]
	By country - Scope 2 activity in metric tons of CO_2-e by individual country.	Binary	1	[1 for CO_2e or material "other", 0 for none/irrelevant other]
	e. Total global MWh of purchased electricity CO_2-e emitted.	Binary	1	[1 for MWh, 0 for none/irrelevant other]
	f. Total MWh of purchased electricity for Annex B countries.	Binary	1	[1 for MWh, 0 for none/irrelevant other. 1 point if response is "0" and the company does not operate in Annex B countries]
	By country — MWh of purchased electricity by individual country.	Binary	1	[1 for MWh, 0 for none/irrelevant other]
	g. Total global MWh of purchased electricity from renewable sources.	Binary	1	[1 for MWh, 0 for none/irrelevant other]
	h. Total MWh of purchased electricity from renewable sources for Annex B countries.	Binary	1	[1 for MWh, 0 for none/irrelevant other. 1 point if response is "0" and the company does not operate in Annex B countries]
2(b)(ii) — scope 1and scope 2 of GHG protocol	If you are unable to detail your Scope 1 and Scope 2 GHG emissions and/or electricity consumption, please report the GHG emissions you are able to identify together with a description of those emissions.	Variable	3	[score under standard scale — 0 for blank or N/A even if company has disclosed under 2bi]
2(c)(i) Other Emissions — Scope 3 of GHG Protocol	a) i How do you identify and/or measure Scope 3 emissions?	Variable	3	[standard scale — 1 for "we don't". Question is ambiguous, so if methodology is also provided here then score it under c below]
	a) ii Please provide details of the most significant Scope 3 sources for your company.	Binary	1	[1 for an answer, 0 for blank]
	b. Details in metric tonnes CO_2-e of GHG emissions in the following categories: i Employee business travel.	Binary	1	[1 for CO_2e or material "other", 0 for none/irrelevant other]
	ii External distribution/logistics.	Binary	1	[1 for CO_2e or material "other", 0 for none/irrelevant other]
	iii Use/disposal of company's products and services.	Binary	1	[1 for CO_2e or material "other", 0 for none/irrelevant other]
	iv Company supply chain.	Binary	1	[1 for CO_2e or material "other", 0 for none/irrelevant other]
	c. Details of the methodology you use to quantify or estimate Scope 3 emissions.	Variable	3	[standard scale — but see a i above]
2(d) External Verification	(i) Has the information reported in response to Questions 2(b)-(c) been externally verified or audited or do you plan to have the information verified or audited?	Binary	1	[1 for an answer, 0 for blank]

Question Number	Question	Response type	Max Points	Guidance
	(ii) If your answer to question 2d(i) is Yes, please provide or attach a copy of the audit or verification statement or state your plans for verification.	Binary	1	[1 for an answer, 0 for blank]
	(iii) Please specify the standard or protocol against which the information has been audited or verified.	Binary	1	[1 for CO_2-e or material "other", 0 for none/irrelevant other]
2(e) Data Accuracy	Does your company have a system in place to assess the accuracy of GHG emissions inventory calculation methods, data processes and other systems relating to GHG measurement? If so, please provide details. If not, please explain how data accuracy is managed.	Variable	3	[score under standard scale — no points lost for answering "no" and can still get 3 pts if well justified]
2(f) Emissions History	Do the emissions reported for your last accounting year vary significantly compared to previous years? If so, please explain reasons for the variations.	Variable	2	[2 points "no", 1 point "yes" with no explanation, 2 points "yes" plus explanation
2(g) Emissions Trading	i) Does your company have facilities covered by the EU Emissions Trading Scheme? If so,	Binary	1	[1 for an answer, 0 for blank]
	a) Please provide details of the annual allowances (metric tons of CO_2) awarded to your company in Phase I for each of the years from 1 January 2005 to 31 December 2007 and details of allowances allocated for Phase II commencing on 1 January 2008.	Variable	2	[n/a if no ETS, 0 if no answer, 1 if some years, 2 if all years]
	b) Please provide details of actual annual emissions (metric tons of CO_2) from facilities covered by the EU ETS with effect from 1 January 2005.	Variable	2	[n/a if no ETS, 0 if no answer, 1 if some years, 2 if all years]
	c) What has been the impact on your company's profitability of the EU ETS?	Binary	1	[n/a if not ETS, 1 for an answer, 0 for blank]
	ii) What is your company's strategy for trading or participating in regional and/or international trading schemes (eg: EU ETS, RGGI, CCX) and Kyoto mechanisms such as CDM and JI projects? Explain your involvement for each of the following: EU ETS CDM/JI CCX RGGI Others ELECTRIC UTILITIES — not factored into CDP score but will be assessed in report sections.	Variable	3	[score under standard scale — treat answer for all projects as if one response]
2(h) Energy Costs	i) Please identify the total costs in US $ of your energy consumption e.g. from fossil fuels and electric power.	Binary	1	[1 for an answer, 0 for blank]
	ii) What percentage of your total operating costs does this represent?	Binary	1	[1 for an answer, 0 for blank]
	iii) What percentage of energy costs are incurred on energy from renewable sources?	Binary	1	[1 for an answer, 0 for blank]
		Total points available	**52**	

3 Performance

Question Number	Question	Response type	Max Points	Guidance
3(a) Reduction Plans	i) Does your company have a GHG emissions reduction plan in place? If so, please provide details along with the information requested below. If there is currently no plan in place, please explain why.	Variable	3	[standard scale — 1 point for just "yes" or "no"]
	ii) What is the baseline year for the emissions reduction plan?	Binary	1	[1 for an answer, 0 for blank]
	iii) What are the emissions reduction targets and over what period do those targets extend?	Binary (x2)	2	[1 for what are targets, 1 for what period]
	iv) What activities are you undertaking to reduce your emissions e.g.: renewable energy, energy efficiency, process modifications, offsets, sequestration etc? What targets have you set for each and over what timescales do they extend?	Variable	3	[standard scale]
	v) What investment has been or will be required to achieve the targets and over what time period?	Variable	2	[0 no or very limited response, 1 some thought, 2 projections]

Question Number	Question	Response type	Max Points	Guidance
	vi) What emissions reductions and associated costs or savings have been achieved to date as a result of the plan?	Variable	2	[0 no or very limited response, 1 some thought, 2 numbers — doesn't matter what the savings achieved actually are]
3(b) Emissions Intensity	i) What is the most appropriate measurement of emissions intensity for your company?	Binary	1	[1 for an answer, 0 for blank]
	Please give your company's emissions intensity figure for the measurement given above.	Binary	1	[1 for an answer, 0 for blank]
	ii) Please state your GHG emissions intensity in terms of total tonnes of CO_2-e reported under Scope 1 and Scope 2 per US $m turnover and EBITDA for the reporting year. Scope 1/ US$ turnover	Binary	1	[1 for an answer, 0 for blank]
	Scope 2/ US$ turnover	Binary	1	[1 for an answer, 0 for blank]
	Scope 1/ EBITDA	Binary	1	[1 for an answer, 0 for blank]
	Scope 2/ EBITDA	Binary	1	[1 for an answer, 0 for blank]
	iii) Has your company developed emissions intensity targets; what are they; what reductions have you achieved?	Variable	3	[standard scale — combine answers to all 3biii questions. Receive 1 pt for "no" , but can receive up to 3 points with a "no" answer if it is well justified.]
3(c) Planning - Forecasted emissions	Do you forecast your company's future emissions and/or electricity use?	Variable	3	[standard scale — 1 for just 'yes' or 'no', and up to 3 for an explained and reasonable "no"]
	i) Please provide details of those forecasts, summarize the methodology used and the assumptions made.	Variable	3	[standard scale]
	ii) How do you factor the cost of future emissions into capital expenditure planning?	Variable	3	[standard scale. Note that few answers appear comprehensive enough to justify 3 points]
	iii) How have these considerations made an impact on your investment decisions?	Variable	3	[standard scale]
	Please enter the accounting period used to report GHG emissions details below.	Binary	1	[1 for an answer, 0 for blank]
	Forecasted Scope 1 Direct GHG Emissions: Please provide: a. Forecasted Total global Scope 1 emissions in Metric Toes CO_2-e.	Binary	1	[1 for CO_2e or material "other", 0 for none / irrelevant other]
	b. Forecasted Total Scope 1 emissions in Metric Tons CO_2-e for Annex B countries.	Binary	1	[1 for CO_2e or material "other", 0 for none / irrelevant other]
	By country - Forecasted Scope 1 emissions in Metric Tons of CO_2-e by individual country.	Binary	1	[1 for CO_2e or material "other", 0 for none / irrelevant other]
	c. Forecasted total global Scope 2 emissions in Metric Tons CO_2-e.	Binary	1	[1 for CO_2e or material "other", 0 for none / irrelevant other]
	d. Forecasted total Scope 2 emissions in Metric Tons CO_2-e for Annex B countries.	Binary	1	[1 for CO_2e or material "other", 0 for none / irrelevant other]
	e. Forecasted total global MWh of purchased electricity.	Binary	1	[1 for MW or material "other", 0 for none / irrelevant other]
	f. Forecasted total MWh of purchased electricity for Annex B countries.	Binary	1	[1 for MW or material "other", 0 for none / irrelevant other]
	g. Forecasted total global MWh of purchased electricity from renewable sources by individual countries.	Binary	1	[1 for MW or material "other", 0 for none / irrelevant other]
	h. Forecasted total MWh of purchased electricity from renewable sources for Annex B countries.	Binary	1	[1 for MW or material "other", 0 for none / irrelevant other]
	i. Forecasted total global MWh of purchased electricity from renewable sources by individual countries. ELECTRIC UTILITIES — not factored into CDP score but will be assessed in report sections.	Binary	1	[1 for MW or material "other", 0 for none / irrelevant other]
		Total points available	**45**	

4 Governance

Question Number	Question	Response type	Max Points	Guidance
4(a) Responsibility	Does a Board Committee or other executive body have overall responsibility for climate change? If not, please state how overall responsibility for climate change is managed. If so, please answer parts (i) and (ii) below.	Variable	3	[standard scale — 1 point for just "yes" or "no"]
	i) Which Board Committee or executive body has overall responsibility for climate change?	Binary	1	[1 for an answer, 0 for blank]
	ii) What is the mechanism by which the Board or other executive body reviews the company's progress and status regarding climate change?	Variable	3	[standard scale]
4(b) Individual Performance	Do you assess or provide incentive mechanisms for individual management of climate change issues including attainment of GHG targets? If so, please provide details.	Variable	3	[standard scale — 1 point for just "yes" or "no"]
4(c) Communications	Please indicate whether you publish information about the risks and opportunities presented to your company by climate change, details of your GHG emissions and plans to reduce emissions through any of the following communications: i) the company's Annual Report or other statutory filings.	Variable	2	[0 for blank, 1 for a "no" answer or a "yes" with no additional commentary, and 2 points for a "yes" with commentary]
	ii) formal communications with shareholders or external parties.	Variable	2	[0 for blank, 1 for a "no" answer or a "yes" with no additional commentary, and 2 points for a "yes" with commentary. Note this MUST NOT be the CSR report]
	iii) voluntary communications such as Corporate Social Responsibility reporting.	Variable	2	[0 for blank, 1 for a "no" answer or a "yes" with no additional commentary, and 2 points for a "yes" with commentary]
4(d) Public Policy	Do you engage with policymakers on possible. responses to climate change including taxation, regulation and carbon trading? If so, please provide details.	Variable	3	[standard scale - doesn't matter whether the company does this directly or through trade associations as long as disclosed]
		Total points available	**19**	
		Total points in survey	**146**	

Methodology weighting

	Points (comprehensive)	Points (comp but not EU ETS)	Points (min standards)	Points (weighted)
Section 1	30	30	30	30
Section 2	52	47	33	35
Section 3	45	45	15	25
Section 4	19	19	7	10
Total	146	141	85	100

Companies in carbon intensive sectors and participating in EU ETS are assessed out of 146 using the comprehensive scale

Companies in carbon intensive sectors that do not participate in EU ETS are assessed out of 141 using the comprehensive scale minus EU ETS questions

Companies in non-carbon-intensive sectors are assessed out of 85 using the minimum standards scale

Scores are normalised to be out of 100 (max score 100).

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