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# Investment, transformation and leadership

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## CDP S&P 500 Climate Change Report 2013

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On behalf of 722 investors representing US\$87 trillion in assets

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# The evolution of CDP

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CDP announced an exciting change this year.

Over ten years ago CDP pioneered the only global disclosure system for companies to report their environmental impacts and strategies to investors. In that time, and with your support, CDP has accelerated climate change and natural resource issues to the boardroom and has moved beyond the corporate world to engage with cities and governments.

The CDP platform has evolved significantly, supporting multinational purchasers to build more sustainable supply chains. It enables cities around the world to exchange information, take best practice action and build climate resilience. We assess the climate performance of companies and drive improvements through shareholder engagement.

Our offering to the global marketplace has expanded to cover a wider spectrum of the earth's natural capital, specifically water and forests, alongside carbon, energy and climate.

For these reasons, we have outgrown our former name of the Carbon Disclosure Project and rebranded to CDP. Many of you already know and refer to us in this way. Our rebrand denotes our progress as we continue to catalyze action and respond to business, finance, investment and environmental needs globally.

We now have a look and logo that reflect the scale of the work we must undertake in the coming years to move the markets ahead of where they would otherwise be on these issues and realize truly sustainable economies.

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- ▶ **Over 5,000 companies from all over the world have been asked to report on climate change through CDP this year;**
- ▶ **81% of the world's 500 largest public companies listed on the FTSE Global 500 engage with CDP to enable effective measurement of their carbon footprint and climate change action;**
- ▶ **CDP is a not-for-profit organization. If you would like to support our vital work through donations or sponsorship opportunities, please email [stephen.donofrio@cdp.net](mailto:stephen.donofrio@cdp.net) or telephone +1 212 378 2086.**

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Measurement of emissions used throughout the report:  
 1 gigaton (Gt) CO<sub>2</sub>e = 1,000,000,000 metric tons CO<sub>2</sub>e  
 1 megaton (Mt) CO<sub>2</sub>e = 1,000,000 metric tons CO<sub>2</sub>e

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## Heather Zichal

Deputy Assistant to President Obama for Energy and Climate



If there is one thing I have learned over the past few years, it's that America responds well to a challenge. The challenge of climate change has come to the forefront for our communities and businesses as they responded to severe weather, rising energy prices, and air pollution. But, while some in Washington waited, the rest of the country

The companies featured in this report are taking the kinds of steps the president outlined in his climate plan, showing that environmental protection and economic growth are not at odds.

accepted the challenge, and decided to tackle it head-on. This summer, President Obama has made it clear that we have an obligation to leave our children a planet that's not polluted or damaged, and he took action by laying out a Climate Action Plan.

President Obama's Climate Action Plan starts with taking responsible, common-sense steps to cut carbon pollution, in order to protect the health of our children and move the economy toward American-made clean energy sources that will create good jobs and lower home energy bills. We will also build on the work we've already done to

double renewable energy and set the toughest fuel economy standards in American history.

Even as we take these new steps, we must also prepare for the impacts of a changing climate that are already being felt across the country. Whether we are fixing the infrastructure we already have or building the new roads and bridges that will keep our country competitive, we need to do so in a way that makes our communities more resilient. Going forward, we will team up with state and local governments to strengthen our roads, bridges, and shorelines so we can better protect people's homes, businesses, and ways of life from severe weather.

Finally, the president's climate plan also calls on America to lead international efforts to combat global climate change. Above all, it is imperative for the United States to couple action at home with leadership internationally. President Obama showed his leadership in Copenhagen in 2009, and we saw it this year as we reached historic agreements with China and the G-20 to combat global warming from HFC emissions. The world looks to us for leadership on climate change, and we will deliver both at home and abroad.

Every day, I have opportunities to meet with leaders from across the country, and what's struck me is how ahead of the curve they are. Whether it is 1,000 mayors signing agreements to cut carbon pollution, or city councils encouraging energy efficiency in our homes and factories, they understand that the threat of climate change is real and they are taking action. Nearly a dozen states have already implemented or are implementing their own market-based programs to reduce carbon pollution. More than 25 states have set energy efficiency targets, and more than 35 have set renewable energy targets. States and communities have shown this kind of leadership because they know it's good for our communities, it's good for the environment, and it's good for our economy.

The same has been true for the businesses, both large and small, that I have met with to discuss the president's Climate Action Plan. For them, the case for action on climate change couldn't be clearer. By reducing emissions and investing in efficiency, they have improved their competitiveness and reduced uncertainty. They are shifting to cleaner, homegrown energy. They know that making their infrastructure more secure against climate change will only make them more resilient down the road. Companies have been hard at work on this for years, and they've just been waiting for us to catch up. It makes sense for their businesses, for their stockholders, and for the planet.

That's why I am glad to provide a foreword to CDP. The companies featured in this report are taking the kinds of steps the president outlined in his climate plan, showing that environmental protection and economic growth are not at odds. What's more, the responding S&P 500 companies include some of the most innovative businesses in the US, and represent about 30% of our total national emissions. These companies know they have a stake in responding to climate change, and they aren't afraid to lead. This kind of disclosure lets investors, markets, and customers know that their companies are addressing the risks of climate change and taking steps to reduce emissions, increase efficiency, and improve the bottom line.

Ultimately, these steps are about building our future. A future where America is more energy-secure and our communities and businesses are safe from the worst effects of climate change. It's going to call upon people outside of Washington to take action. It will call upon our scientists and engineers to unlock new sources of American energy, and it will take businesses to deploy and sell them. As the president said, this challenge is undoubtedly one that is suited to our strengths as Americans, and these businesses are proving that they can rise to meet it.

## CEO foreword



As countries around the world seek economic growth, strong employment and safe environments, corporations have a unique responsibility to deliver that growth in a way that uses natural resources wisely. The opportunity is enormous and it is the only growth worth having.

This year we passed a significant landmark of 400 parts per million (ppm)<sup>1</sup> of carbon dioxide in the atmosphere and are rapidly heading towards 450 ppm, accepted by many governments as the upper limit to avoid dangerous climate change. The Intergovernmental Panel on Climate Change (IPCC) 5th assessment report (AR5) strengthens the scientific case for action.

Fears are increasing over future climate change impacts as we see more extreme weather events, Hurricane Sandy the most noted with damages totalling some \$42 billion.<sup>2</sup> The unprecedented melting of the Arctic ice is a clear climate alarm bell, while the first 10 years of this century have been the world's hottest since records began, according to the World Meteorological Organization.

The result is a seismic shift in corporate awareness of the need to assess physical risk from climate change and to build resilience.

For investors, the risk of stranded assets has been brought to the fore by the work of Carbon Tracker. They calculate around 80% of coal, oil and gas reserves are unburnable, if governments are to meet global commitments to keep the temperature rise below 2°C. This has serious implications for institutional investors' portfolios and valuations of companies with fossil fuel reserves.

The economic case for action is strengthening. This year, we published *The 3% Solution*<sup>3</sup> with the World Wildlife Fund showing that the US corporate sector could reduce emissions by 3% each year between 2010 and 2020 and deliver \$780 billion in savings above costs as a result. 79% of US companies responding to CDP report higher ROI on emissions reduction investments than on the average business investment. Meanwhile, governments

are taking new action: The US Administration has launched its Climate Action Plan, with a new emphasis on reducing emissions from utilities; China is developing air pollution measures and moving toward pilot cap-and-trade schemes; the UK Government has mandated greenhouse gas emissions reporting for all large listed companies; the EU is looking at improving environmental and other reporting.

The pressure on corporations, investors and governments to act continues. At CDP, we have broadened our work to add forests to climate and water so our programs now extend to an estimated 79% of natural capital, by value.<sup>4</sup> To reflect this, we rebranded at the start of the year from the Carbon Disclosure Project to CDP and are increasing our focus on projects to accelerate action. One explores how corporations influence public policy on climate change both positively and negatively. Some corporations are still acting—both directly and through trade associations—to prevent the inevitable: nations need sensible climate regulation that protects the public interest over the long term.

As countries around the world seek economic growth, strong employment and safe environments, corporations have a unique responsibility to deliver that growth in a way that uses natural resources wisely. The opportunity is enormous and it is the only growth worth having.

**Paul Simpson**  
CEO CDP

1. Dr. Pieter Tans and Dr. Ralph Keeling, "Up-to-Date Weekly Average CO<sub>2</sub> at Mauna Loa," US Dept. of Commerce, NOAA, Earth System Research Lab., Global Monitoring Div. Available at: [www.esrl.noaa.gov/gmd/ccgg/trends/weekly.html](http://www.esrl.noaa.gov/gmd/ccgg/trends/weekly.html). Accessed 9/10/13.

2. New York State Hurricane Sandy Damage Assessment; Governor Andrew Cuomo; November 12, 2012 [www.governor.ny.gov/press/11262012-damageassessment](http://www.governor.ny.gov/press/11262012-damageassessment).

3. [www.cdp.net/CDPResults/3-percent-solution-report.pdf](http://www.cdp.net/CDPResults/3-percent-solution-report.pdf).

4. Based on findings from the report *Natural Capital at Risk: The Top 100 Externalities of Business*, published by TEEB for Business Coalition in April 2013.

## Executive summary

**The 2013 CDP S&P 500 climate change report presents the progress achieved by 334<sup>1</sup> S&P 500 companies in reducing emissions, responding to climate-related risks and opportunities, and mobilizing influence to manage climate change. This year's responses demonstrate a significantly more mature level of climate change management—as well as a drive to lead among peers.**

Renewed political focus, together with recently published scientific and economic findings, underscores the magnitude of action required for scalable change. In his June 2013 Climate Action Plan, President Obama acknowledged the vital role the business community must play in meeting the plan's three objectives: (1) to reduce emissions in the United States by 17% (relative to 2005 emissions) as of 2020, (2) to strengthen America's climate resilience, and (3) to lead global efforts to combat climate change.

The administration's statement followed closely an announcement by the National Oceanic and Atmospheric Administration (NOAA) that CO<sub>2</sub> levels in the atmosphere had reached 400 parts per million (ppm) for the first time in 3 million years—a critical threshold, according to NOAA. Meanwhile, evidence emerged from a study commissioned by CDP and the World Wildlife Fund—*The 3% Solution*—that the US corporate sector can achieve compelling savings and top-line growth by targeting an annual 3% reduction in carbon emissions during the period 2010–2020.

In consideration of both the scale and scope of change required, CDP has expanded the purview of its own mission to drive sustainable economies. The 2013 questionnaire reflects this shift, asking new questions and refining existing ones. The result: sharper and more-relevant insight into corporate engagement and identification of who is leading transformative change.

### Disclosure and performance continue to improve

The bar for inclusion in the Climate Disclosure Leadership Index (CDLI) increased to a disclosure score of 96 in 2013. In addition, the average performance score of respondents increased by 21% in 2013 to 56, and 23% of respondents had performance score increases of 20 points or more versus 2012. The number of companies listed in the Climate Performance Leadership Index (CPLI) more than doubled, to 36 from 16. These results point to intensified commitment—beyond transparency of reporting—to both action and measured progress.

### 2013 report focus

The findings presented in the 2013 report align with the president's call to action and NOAA's 400-ppm announcement, both of which spotlight the growing importance of climate-change-related reporting and meaningful action. This report explores, in business

boardroom terms, what companies are doing to meet the climate change challenge—and also gives clarifying attention to what remains to be done. The actions of leaders are recognized, and nonleaders are offered clear examples of how to heighten engagement. This is accomplished with a focused assessment of how responding companies are:

1. Investing to cut carbon emissions
2. Preparing for the impacts of climate change through business transformation
3. Leading efforts to address global climate change through multidimensional engagement

Recognizing that value propositions vary considerably across industries, the 2013 report examines this year's response data through a sector-specific lens, identifying both leaders within sectors and sectors that lead. The focus is first on S&P 500 emissions reduction progress, commitments, and investments made and returns realized (monetary and nonmonetary). The report then assesses how companies are transforming the business model to prepare for the impacts of climate change, to build resiliency and to create strategic advantage in doing so. Finally, new inquiry and data help establish which companies are best positioned for next-generation climate strategy and multidimensional engagement as envisioned by the president.

### Investor and board-level interest

The report is based on responses to CDP's 2013 climate change questionnaire, which was sent to the S&P 500 companies on behalf of 722 institutional investors—CDP signatories—representing \$87 trillion<sup>2</sup> in assets, of which 124 are US based, with \$21 trillion in combined assets. The fiduciary backing of the 2013 CDP questionnaire increased by 10% over the previous year, up from 655 signatories in 2012, representing growing interest by the investor community in environmental, social, and governance (ESG) reporting. Corporations are increasingly following suit, with continued board-level oversight at 92% of S&P 500 responding companies. Furthermore, 80% are incorporating climate change into their overall business strategies, and 87% either have a dedicated climate change risk management process in place or have integrated climate change into their company-wide risk management processes.

1. Analysis in this report is based on the 334 company responses received by the deadline of June 27, 2013. The response rate of 68% (342 companies) is based on time of printing.

2. Currency used throughout the report is US\$.

## Value creation:

Investing to cut carbon emissions

p. 12

S&P 500 respondents are moving beyond disclosure to invest in and assign value to emissions reductions. In the process, they are discovering ways to boost efficiencies, create new markets, engage employees, and build competitive advantage.

- **Evidence indicates emissions reductions can be decoupled from growth:** Data show a 6%<sup>3</sup> reduction in emissions from 2012, while S&P 500 (CAGR) and US GDP grew 15.8%<sup>4</sup> and 2.8%,<sup>5</sup> respectively.
- **Over 4% average of annual capex is invested in emissions reduction efforts:** Figures range from less than 1% of capital expenditure for Consumer Discretionary to 23% for Utilities.
- **Highest savings are reported for product design:** \$1.2 billion and 11.3 Mt CO<sub>2</sub>e annual savings are reported as a result of embedding climate change considerations into product design.
- **Payback priorities are shifting further into the future:** 69% of investments by count fall within a 3-year payback horizon, but in dollar terms, 77% of projects fall within a 4- to 10-year horizon.
- **Strategic advantage is aligned with forward thinking:** 65% of companies that link climate change strategy to strategic advantage are making more long-term investments (3+ years) versus 35% of other companies.

## Business transformation:

Preparing for the impacts of climate change

p. 22

For a greater number of respondents, climate change management is no longer exiled to the organizational periphery, but is being built into corporate DNA. In the process, companies are transforming identified risks and opportunities into long-term resilience and commercial value.

- **Climate change exposure is growing:** 77% of respondents disclose exposure to physical, regulatory, and other risk drivers, up from 61% in 2012. Extreme weather tops the list of highest-impact risks.
- **Opportunities are being realized now:** 75% of opportunities disclosed are designated as current or near term. Increased demand for new and existing products and services is of highest impact.
- **Strategic imperative is articulated:** 56% of respondents report that their climate-related efforts provide strategic business advantage, up from 48% in 2012.
- **Despite convergence, leaders remain distinguished:** 95% of leaders (vs. 47% of nonleaders) claim strategic advantage, and 98% (vs. 61%) are able to assign monetary and nonmonetary savings to climate investments.
- **Premium is placed on transparency and quality of data:** Data indicate a 46% increase in companies disclosing in annual reports and a 22% increase in those getting emissions data verified/assured.

## Next-generation leadership:

Addressing global climate change through multidimensional engagement

p. 32

Leading companies are moving beyond intracompany boundaries to catalyze climate action across the traditional business value chain while also seeking multiparty solutions to influence a broader world not limited to commercial interests.

- **New value chain data point to high engagement:** 69% of respondents (vs. 86% of leaders) report engagement with some element of the value chain on climate change management.
- **Supply chain emerges as a key lever for deeper influence:** Information Technology and Consumer Discretionary companies are leading on engaging suppliers in excess of 50% of total spend on climate change and emissions management.
- **Scope 3 inroads are made and owned:** Companies that reported Scope 3 emissions in 2012 have expanded into other categories, both upstream and downstream. Emissions disclosed for purchased goods and services more than tripled.
- **Value chain emissions picture remains incomplete:** There are 7 Scope 3 categories for which more than 75 companies are not capturing emissions despite having designated them as relevant.
- **Support for climate policy is focused:** 80% of respondents (up from 70% in 2012) are engaging in climate change policy; of those that are in support, the majority favor energy efficiency and clean energy generation.

3. Based on 287 companies that disclosed in both 2012 and 2013 their Scopes 1 and 2 emissions.

4. Bloomberg Market Data, S&P 500 Index, calculated Aug. 27, 2013 (1/1/12-12/31/12).

5. "National Income and Product Accounts, Gross Domestic Product, Comprehensive Revision: 1929 through 1st Quarter 2013" (news release), US Bureau of Economic Analysis, July 31, 2013. Available at: [www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm](http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm).

## Criteria for 2013 leaders

### Each year, company responses are analyzed and scored against two parallel scoring schemes: disclosure and performance.

The disclosure score assesses the completeness and quality of a company's response. Its purpose is to provide a summary of the extent to which companies have answered CDP's questions in a structured format. A high disclosure score signals that a company provided comprehensive information about the measurement and management of its carbon footprint, its climate change strategy and risk management processes and outcomes.

The performance score assesses the level of action, as reported by the company, on climate change mitigation, adaptation and transparency. Its intent is to highlight positive climate action as demonstrated by a company's

CDP response. A high performance score signals that a company is measuring, verifying and managing its carbon footprint, for example by setting and meeting carbon reduction targets and implementing programs to reduce emissions in both its direct operations and supply chain.

The highest scoring companies for disclosure and/or performance enter the Climate Disclosure Leadership Index (CDLI) and/or the Climate Performance Leadership Index (CPLI). Public scores are available in CDP reports, through Bloomberg Terminals, Google Finance and Deutsche Boerse's website.

#### What are the CDLI and CPLI criteria?

To enter the CDLI, a company must:

- Make its response public and submit via CDP's Online Response System
- Achieve a score within the top 10% of the total S&P 500 population (in 2013 a disclosure score of 96 or higher was earned by 53 companies)

To enter the CPLI (Performance Band A), a company must:

- Make its response public and submit via CDP's Online Response System
- Attain a performance score greater than 85
- Score maximum performance points on question 12.1a for greenhouse gas emissions reductions due to emissions reduction activities over the past year (4% or above in 2013)
- Disclose gross global Scope 1 and Scope 2 figures
- Score maximum performance points for verification of Scope 1 and Scope 2 emissions
- Furthermore, CDP reserves the right to exclude any company from the CPLI if there is anything in its response or other publicly available information that calls into question its suitability for inclusion.

**Note:** Companies that achieve a performance score high enough to warrant inclusion in the CPLI, but do not meet all of the other CPLI requirements are classed as Performance Band A- and are not included in the CPLI.

#### How are the CDLI and CPLI used by investors?

Good disclosure and performance scores are used by investors as a proxy of good climate change management or climate change performance of companies.

Investors identify and then engage with companies to encourage them to improve their score. The 'Aiming for A' initiative which was initiated by CCLA Investment Management is driven by a coalition of UK asset owners and mutual fund managers. They are asking 10 major UK-listed utilities and extractives companies to aim for inclusion in the CPLI. This may involve filing supportive shareholder resolutions for Annual General Meetings occurring after September 2013.

Investors are also using CDP scores for creation of financial products. For example, Nedbank in South Africa developed the Nedbank Green Index. Disclosure scores are used for selecting stocks and performance scores for assigning weight.

For further information on the CDLI and the CPLI and how scores are determined, please visit [www.cdp.net/guidance](http://www.cdp.net/guidance).

## Leadership profiled

### CDLI+CPLI

# 25

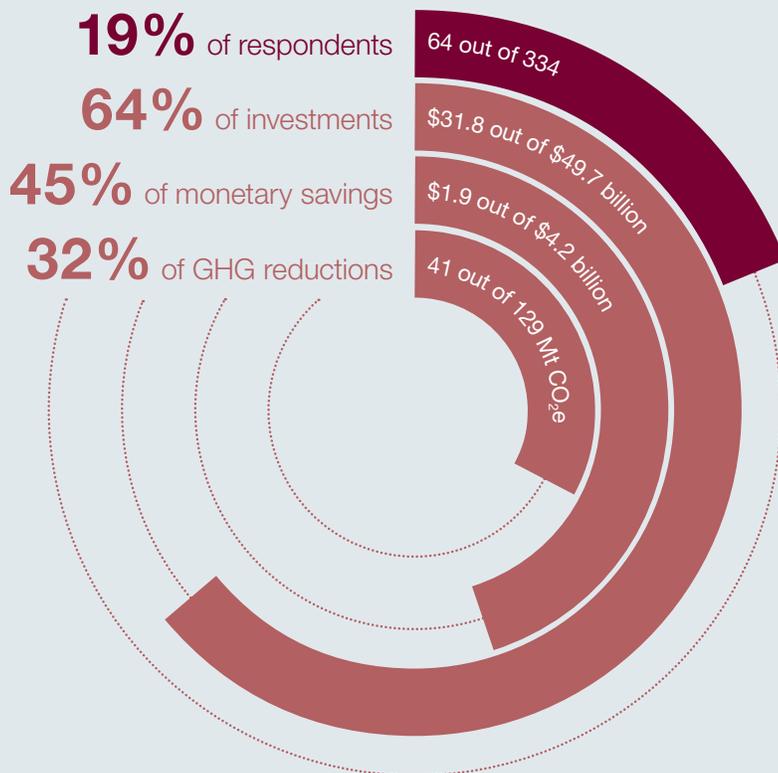
companies leading on both disclosure and performance, compared to 11 in 2012

### NEW

# 18

first-time leaders, half of which are in the Financials sector

### In 2013, leaders represent



### Leaders share the same characteristics

- Executive-level and board attention to climate change
- Monetary incentives in place to reduce emissions
- Climate change embedded into risk management process and strategy
- Accountability by formal targets
- Confidence over direct and indirect emissions footprint via verification/assurance
- Decrease in emissions attributed to their corporate efforts
- Dollar and CO<sub>2</sub>e savings from emissions reduction efforts
- Strategic advantage provided or enhanced by climate change management

# Disclosure leaders

## Climate Disclosure Leadership Index



| Company                          | Score | Both indices | Years on CDLI |
|----------------------------------|-------|--------------|---------------|
| <b>Consumer Discretionary</b>    |       |              |               |
| The Home Depot, Inc.             | 99    |              | ▼▼            |
| Best Buy Co., Inc.               | 98    | ○            | ▼▼            |
| TJX Companies, Inc.              | 98    |              | ▼▼▼▼          |
| News Corporation                 | 97    |              | ▼▼▼▼▼         |
| <b>Consumer Staples</b>          |       |              |               |
| Colgate-Palmolive Company        | 99    |              | ▼▼▼▼          |
| Molson Coors Brewing Company     | 97    |              | ▼▼▼           |
| Philip Morris International      | 97    |              | ▼▼            |
| Estée Lauder Companies Inc.      | 96    | ○            | New           |
| <b>Energy</b>                    |       |              |               |
| Spectra Energy Corp              | 98    | ○            | ▼▼▼▼▼         |
| Chevron Corporation              | 97    |              | ▼▼▼▼          |
| Hess Corporation                 | 97    |              | ▼▼▼▼          |
| <b>Financials</b>                |       |              |               |
| BNY Mellon                       | 100   | ○            | ▼▼            |
| NYSE Euronext                    | 99    | ○            | ▼▼▼▼          |
| Bank of America                  | 98    | ○            | ▼▼▼▼          |
| CBRE Group, Inc.                 | 98    |              | New           |
| Goldman Sachs Group Inc.         | 98    | ○            | ▼▼▼           |
| Marsh & McLennan Companies, Inc. | 98    |              | New           |
| Simon Property Group             | 98    |              | ▼▼▼▼          |
| HCP, Inc.                        | 97    |              | New           |
| Legg Mason, Inc.                 | 97    |              | ▼▼            |
| Unum Group                       | 97    | ○            | New           |
| Allstate Corporation             | 96    |              | ▼▼▼▼          |
| KeyCorp                          | 96    | ○            | New           |
| Morgan Stanley                   | 96    | ○            | ▼▼▼▼          |
| Wells Fargo & Company            | 96    | ○            | ▼▼▼▼          |
| <b>Health Care</b>               |       |              |               |
| Johnson & Johnson                | 98    |              | ▼▼▼▼          |
| UnitedHealth Group Inc.          | 98    |              | New           |
| Bristol-Myers Squibb             | 96    |              | ▼▼▼           |

| Company                             | Score | Both indices | Years on CDLI |
|-------------------------------------|-------|--------------|---------------|
| <b>Industrials</b>                  |       |              |               |
| Eaton Corporation                   | 100   |              | ▼▼▼▼▼         |
| Northrop Grumman Corp.              | 99    | ○            | New           |
| UPS                                 | 99    |              | ▼▼▼▼▼         |
| Raytheon Company                    | 98    | ○            | New           |
| Union Pacific Corporation           | 98    |              | New           |
| Boeing Company                      | 96    |              | ▼▼▼▼          |
| <b>Information Technology</b>       |       |              |               |
| Cisco Systems, Inc.                 | 100   | ○            | ▼▼▼▼▼▼        |
| Autodesk, Inc.                      | 99    | ○            | ▼▼▼           |
| Hewlett-Packard                     | 99    | ○            | ▼▼▼▼▼         |
| Symantec Corporation                | 98    |              | New           |
| Adobe Systems, Inc.                 | 97    | ○            | ▼▼            |
| EMC Corporation                     | 97    | ○            | ▼▼▼▼          |
| Microsoft Corporation               | 96    | ○            | ▼▼            |
| <b>Materials</b>                    |       |              |               |
| Air Products & Chemicals, Inc.      | 99    |              | ▼▼▼▼▼         |
| Ecolab Inc.                         | 98    | ○            | ▼▼▼▼          |
| MeadWestvaco Corp.                  | 98    |              | ▼▼▼           |
| Praxair, Inc.                       | 98    |              | ▼▼▼▼▼         |
| The Mosaic Company                  | 97    | ○            | New           |
| Sigma-Aldrich Corporation           | 97    |              | ▼▼            |
| E.I. du Pont de Nemours and Company | 96    | ○            | ▼▼▼▼▼         |
| <b>Telecommunications Services</b>  |       |              |               |
| Sprint Nextel Corporation           | 97    | ○            | ▼▼            |
| AT&T Inc.                           | 96    |              | ▼▼▼           |
| <b>Utilities</b>                    |       |              |               |
| Entergy Corporation                 | 100   | ○            | ▼▼▼▼▼         |
| Exelon Corporation                  | 98    | ○            | ▼▼▼▼          |
| Sempra Energy                       | 97    |              | ▼▼▼           |

# Performance leaders

## Climate Performance Leadership Index



| Company                                     | Both indices | Years on CPLI | Company                             | Both indices | Years on CPLI |
|---|--------------|---------------|-------------------------------------|--------------|---------------|
| <b>Consumer Discretionary</b>               |              |               | <b>Industrials</b>                  |              |               |
| Best Buy Co., Inc.                          | ○            | ▼▼            | CSX Corporation                     |              | ▼▼▼           |
| <b>Consumer Staples</b>                     |              |               | Lockheed Martin Corporation         |              | ▼▼▼           |
| Brown-Forman Corporation                    |              | New           | Northrop Grumman Corp.              | ○            | ▼▼            |
| Estée Lauder Companies Inc.                 | ○            | New           | Raytheon Company                    | ○            | New           |
| <b>Energy</b>                               |              |               | Stanley Black & Decker, Inc.        |              | New           |
| Spectra Energy Corp                         | ○            | ▼▼            | <b>Information Technology</b>       |              |               |
| <b>Financials</b>                           |              |               | Adobe Systems, Inc.                 | ○            | New           |
| ACE Limited                                 |              | ▼▼            | Autodesk, Inc.                      | ○            | ▼▼            |
| Bank of America                             | ○            | ▼▼▼▼          | Cisco Systems, Inc.                 | ○            | ▼▼▼           |
| BNY Mellon                                  | ○            | New           | EMC Corporation                     | ○            | New           |
| Comerica Inc.                               |              | New           | Hewlett-Packard                     | ○            | New           |
| Goldman Sachs Group Inc.                    | ○            | New           | JDS Uniphase Corp.                  |              | New           |
| The Hartford Financial Services Group, Inc. |              | New           | Microsoft Corporation               | ○            | New           |
| Host Hotels & Resorts, Inc.                 |              | New           | <b>Materials</b>                    |              |               |
| KeyCorp                                     | ○            | New           | E.I. du Pont de Nemours and Company | ○            | New           |
| Morgan Stanley                              | ○            | ▼▼            | Ecolab Inc.                         | ○            | ▼▼            |
| NYSE Euronext                               | ○            | ▼▼            | The Mosaic Company                  | ○            | New           |
| Principal Financial Group, Inc.             |              | New           | <b>Telecommunications Services</b>  |              |               |
| Unum Group                                  | ○            | New           | Sprint Nextel Corporation           | ○            | New           |
| Wells Fargo & Company                       | ○            | ▼▼            | <b>Utilities</b>                    |              |               |
|   |              |               | Entergy Corporation                 | ○            | New           |
|   |              |               | Exelon Corporation                  | ○            | ▼▼▼           |
|   |              |               | Pepco Holdings, Inc.                |              | ▼▼            |

## Investor commentary



Sustainability issues are often complex and global in nature. No single company or organization has the power to solve them. That's why the work of CDP, and reports like this one, are so important.

CalPERS has a proud history of leadership and innovation in sustainable investment. We have been engaging directly with companies for many years, and we were an early member of CDP.

We are responsible for safeguarding the retirement security of 1.6 million people, and we aim to be a principled and effective investor so that we can meet our long-term commitments to our members and their families. We see sustainability in its simplest form: the ability to prosper over the long term.

Sustainability is at the heart of what we do—sustainability of our pension system; sustainability of our investment portfolio; sustainability of the companies in which we invest.

Every day we make investment decisions based on what we know is the source of long-term value creation: stewardship of the three forms of capital—financial, physical and human.

Today that means we must understand how issues such as climate change, energy needs, water availability, global supply chains and other sustainability challenges affect our portfolio and our fiduciary duty to protect the sacred trust we hold for our members.

We make it a priority to engage our portfolio companies on sustainability issues, since they present risks and opportunities to long-term value cre-

ation. We want to invest in companies that are well governed and well managed. To us, good governance demands that material environmental and social issues be considered.

Take the example of environmental risk. In the longer term, we recognize that rising demand for food and resources globally, coupled with the likely effects of climate change, will have a potential impact on risk-adjusted returns. We also believe that companies that seek maximum emissions reductions are better positioned to understand emerging risk related to environmental events.

We also know that social issues can affect performance. How a company treats its employees, its reputation in the community, and issues like human rights in global supply chains can present risks and also opportunities.

Finally, governance matters. The alignment of interests between investors and managers is vitally important. Hence, we focus on issues like voting rights, compensation for executives, and performance fees for our fund managers.

With our new “total fund” approach to sustainable investment, we are working to integrate sustainability factors into investment decisions throughout the portfolio.

One way we're doing this is through the creation of a set of Investment

Beliefs. Investment Beliefs are working assumptions about the capital markets and investor behavior that will serve as an anchor to inform our investment strategies and decisions, provide a framework for assessing new investment strategies, and improve governance. These beliefs are expected to include a core commitment to sustainability and climate change.

In addition we have launched a Sustainable Investment Research Initiative (SIRI). SIRI seeks to drive innovative thought leadership that will inform and advance our understanding of sustainability factors and the impact they may have on companies, markets and investment intermediaries from the perspective of a large, global, long-term and multi-class institutional asset owner.

Sustainability issues are often complex and global in nature. No single company or organization has the power to solve them. That's why the work of CDP, and reports like this one, are so important. CDP provides investors with the data and analysis they need to make informed decisions and allows them to pool their resources to create one unifying voice in a push for sustainability.

**Anne Stausboll**  
Chief Executive Officer  
CalPERS

## CDP North America perspective



Those companies who score well in CDP are generating superior profitability, cash flow stability, and dividend growth for investors.

The thirteen years of CDP's global operations have seen a remarkable maturing of the incorporation of environmental factors into decision making by the investment community. Today, 124 American institutions with \$21 trillion in assets are signatories to the CDP annual disclosure request. We see the data generated being used at every stage in investment decision making to identify environmental risks and opportunities.

Today, pension funds like CalPERS and CalSTRS use the data for engagement and shareholder resolutions, and active and passive equity managers such as Legg Mason and Neuberger Berman use it for stock selection, proxy voting and company meetings. Additionally, SRI funds including Calvert, Domini and Rockefeller use the data for screening equity universes and assessing the carbon sensitivity of their portfolios. Meanwhile, broker dealers like Goldman Sachs Research, investment advisors like First Affirmative, third party research providers such as MSCI and data providers including Bloomberg and Thomson Reuters all utilize CDP data in their products and analysis.

To respond to this increasing demand for data and analysis, CDP North America not only strives to generate the greatest quantity of high quality disclosure data possible, but we also form strategic partnerships to contribute our unique insight into why this data matters

in today's economy. Our latest analysis "Climate Engagement and Financial Performance", which is a result of a partnership between CDP and Sustainable Insight Capital Management (SICM), is being launched in conjunction with this report. In that paper, we examine the relationship between CDP disclosure scores and various measures of financial performance. We conclude that those companies who score well are not only taking critical steps to establish the requisite governance, management systems and environmental efficiencies to engage on climate, but that they are also generating superior profitability, cash flow stability and dividend growth for investors. The findings should be interesting to all asset managers and asset owners as they significantly add to the body of knowledge on the role of environmental factors in economic performance.

Looking forward, CDP in North America will continue to use our unique position at the center of the largest environmental disclosure platform in the world to add value for all our stakeholders by generating thought leadership to catalyze action on these critical issues. This will predominantly be focused on investors but will also include major purchasing corporations (27 American corporations with a combined annual spend of over \$500 billion are now members

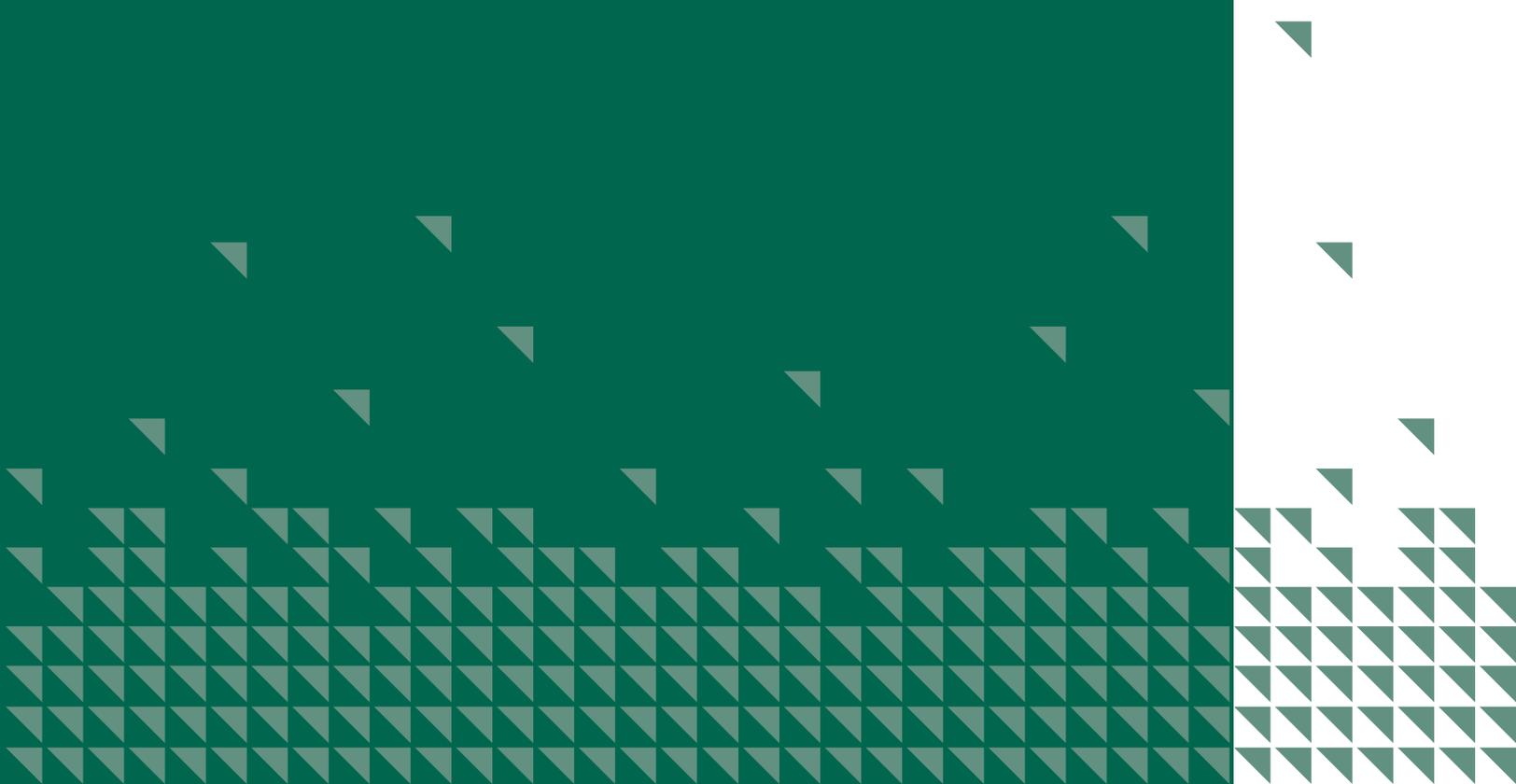
of CDP's supply chain program), and state and federal government. We welcome President Obama's Climate Action Plan that provides a framework to stimulate economic growth and innovation in America by cutting carbon pollution, preparing the United States for the impacts of climate change and leading international efforts to address global climate change. Indeed, this year's S&P 500 climate change report tracks corporate leadership toward these three themes and presents analysis of how American businesses are facing the challenges of climate change and already generating economic value while doing so.

Increasingly evidence gathered through the CDP process strongly suggests that climate change action is good for business and thus ultimately stimulates job creation, strategic investment and economic resilience. We look forward to continuing to spread that message in the year ahead.

**Tom Carnac**  
President  
CDP North America

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**Value creation:**  
Investing to cut  
carbon emissions

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**In 2013, almost all 334 S&P 500 company respondents disclose their direct and indirect emission footprints and 75% of respondents disclose associated targets. Of those setting targets, more than half have met or are on track to meet them, with 43% falling short of expected progress. Nonetheless, this year's CDP responses attest to a greater depth of commitment, action, and sophistication of reporting. An expanding range of quantifiable information is made available, including investments (\$50 billion), associated savings (\$4 billion and 129 megatons of CO<sub>2</sub>e this year), and payback horizons for emissions reduction efforts.**

### Putting emissions and progress into context

**S&P 500 emissions:** The United States contributed 5.3 Gt CO<sub>2</sub>e of the 31.6-gigaton CO<sub>2</sub>e global output in 2012,<sup>1</sup> with global businesses accounting for roughly 25% of the global emissions. The 334 S&P 500 respondents reported 1.6 Gt CO<sub>2</sub>e Scopes 1 and 2 in 2013, representing up to 30% of US emissions and 5% of global emissions.<sup>2</sup>

**S&P 500 progress:** Emissions figures reported above and in Figure 2 are based on a dynamic pool of respondents. A like-for-like, year-over-year comparison of the data yields a 5.8% (59.5 Mt) reduction in Scope 1 emissions and a 7.4% (22 Mt) decrease in Scope 2, resulting in an overall 6.1% decrease. Progress made by S&P respondents is a continuation of a downward trajectory that began in 2009 and parallels that occurring at a national level.<sup>3</sup> This emissions decline falls within both the IPCC's and President Obama's targeted goals for 2020 and 2050.<sup>4</sup> (See sidebar.)

### IPCC and Climate Action Plan explained

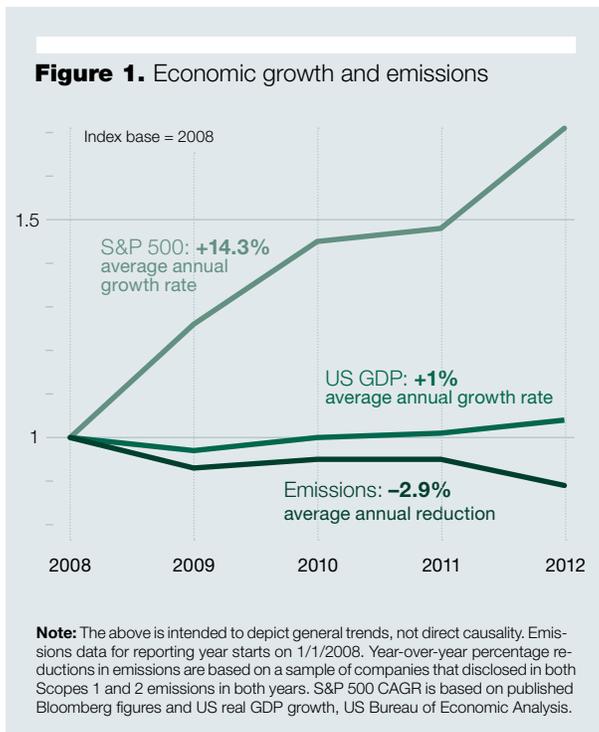
The Intergovernmental Panel on Climate Change (IPCC), a scientific body within the United Nations, has established emissions allowance scenarios (based on 1990 levels) for the years 2020 and 2050. President Obama's Climate Action Plan contains a similar emissions reduction framework, with a specific goal of reducing US emissions by 17% (below 2005 levels) by 2020. The objectives of both are to prevent global CO<sub>2</sub> concentrations from exceeding 450 parts per million (ppm) and temperatures from increasing by an average of more than 2° Celsius by 2050, thus lessening the chance of catastrophic climate events.

In May 2013, concentrations of more than 400 ppm were recorded, well before forecast. Research, including CDP's *The 3% Solution*, suggests that if developed countries and private corporations reduce their annual emissions output by 3% by 2020, climate destabilization would be slowed.

Although the economic slowdown and its lingering after-effects explain some of the emissions drop for both the S&P and national data sets, other factors such as reduction in coal generation, increased use of natural gas and renewables, technological efficiencies in the energy sector, consumer transportation preferences,<sup>5</sup> and millennials' lifestyle choices were significant as well. Since economic growth resumed, the old notion of emissions reductions and increasing GDP being mutually exclusive has appeared less valid.

Contrary to expectations, during the same period, US GDP grew by an average of 1% per year<sup>6</sup> and the average S&P compound annual growth rate was 14.3%,<sup>7</sup> indicating that it is possible for S&P 500 companies to decouple growth from reduction of carbon. (See Figure 1.)

Not only did S&P 500 respondents reduce emissions in a growing economy, but they also increasingly attribute such reductions to their own designed efforts. Nearly all CDLI/CPLI companies and 66% of total respondents attribute a portion of their reductions this past year to their emissions reduction activities—an overall increase from 56% in 2012.



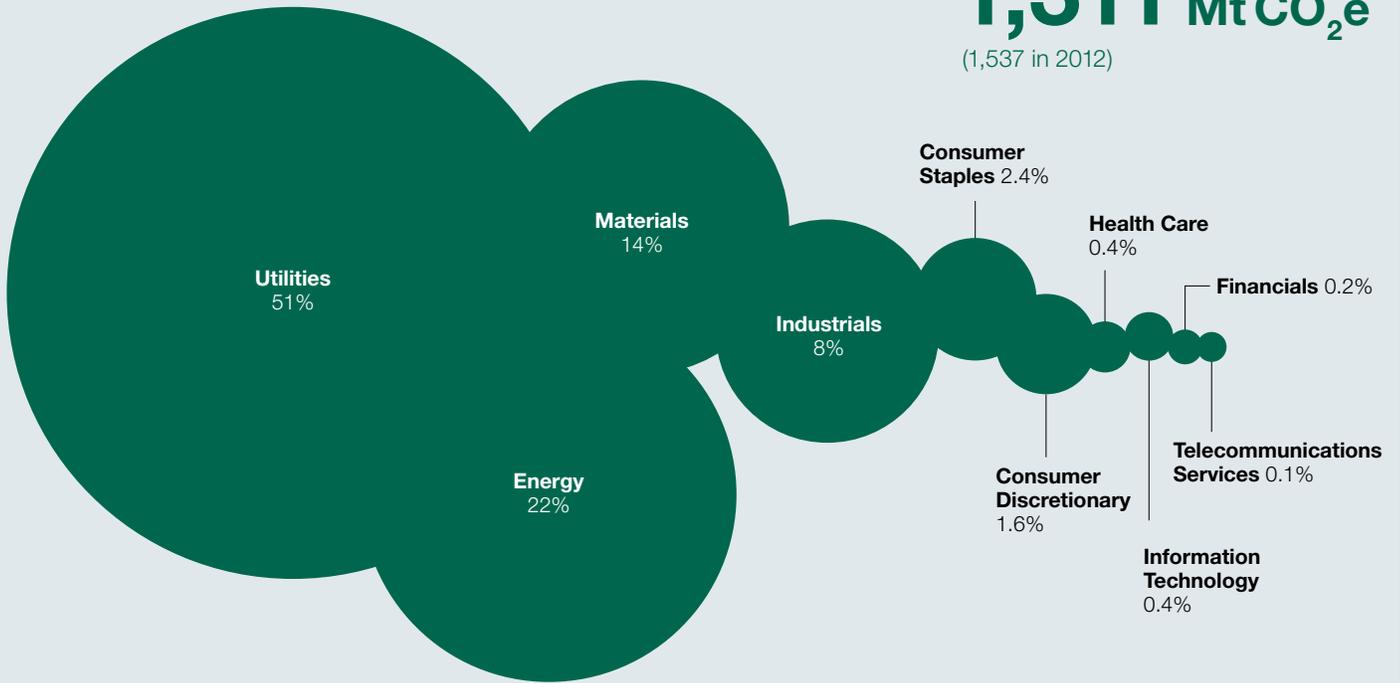
1. *Sustainable Energy in America: 2013 Factbook*, rev. ed., Bloomberg New Energy Finance for The Business Council for Sustainable Energy, 2013.
2. Up to 285 Mt of Scope 2 emissions reported in 2013 are potentially double-counted in this figure.
3. Nationally, emissions are 12% lower than at their 2007 peak of 6.02 Gt CO<sub>2</sub>e before the global financial crisis. *Sustainable Energy in America*.
4. In 2012, the current CDP survey period, the US emitted 5,300 Mt CO<sub>2</sub>e, the lowest figure since 1994 and only 5% higher than 1990 emissions. *Sustainable Energy in America*.
5. *Sustainable Energy in America*.
6. "National Income and Product Accounts, Gross Domestic Product, Comprehensive Revision: 1929 through 1st Quarter 2013" (news release), US Bureau of Economic Analysis, July 31, 2013. Available at: <http://www.bea.gov/news-releases/national/gdp/gdpnewsrelease.htm>.
7. Bloomberg Market Data, S&P 500 Index, calculated Aug. 27, 2013 (11/09–12/31/12).

# Emissions and progress through a sector lens

**Figure 2.** S&P 500 emissions

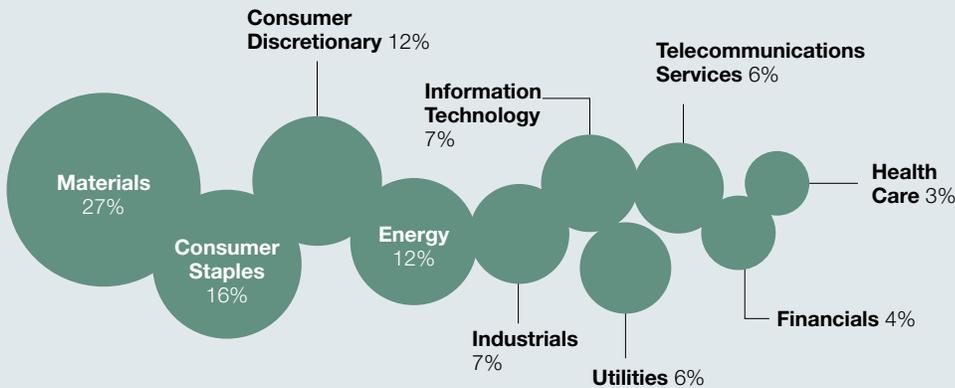
**Direct:** From owned and controlled sources (Scope 1)

**1,311** Mt CO<sub>2</sub>e  
(1,537 in 2012)



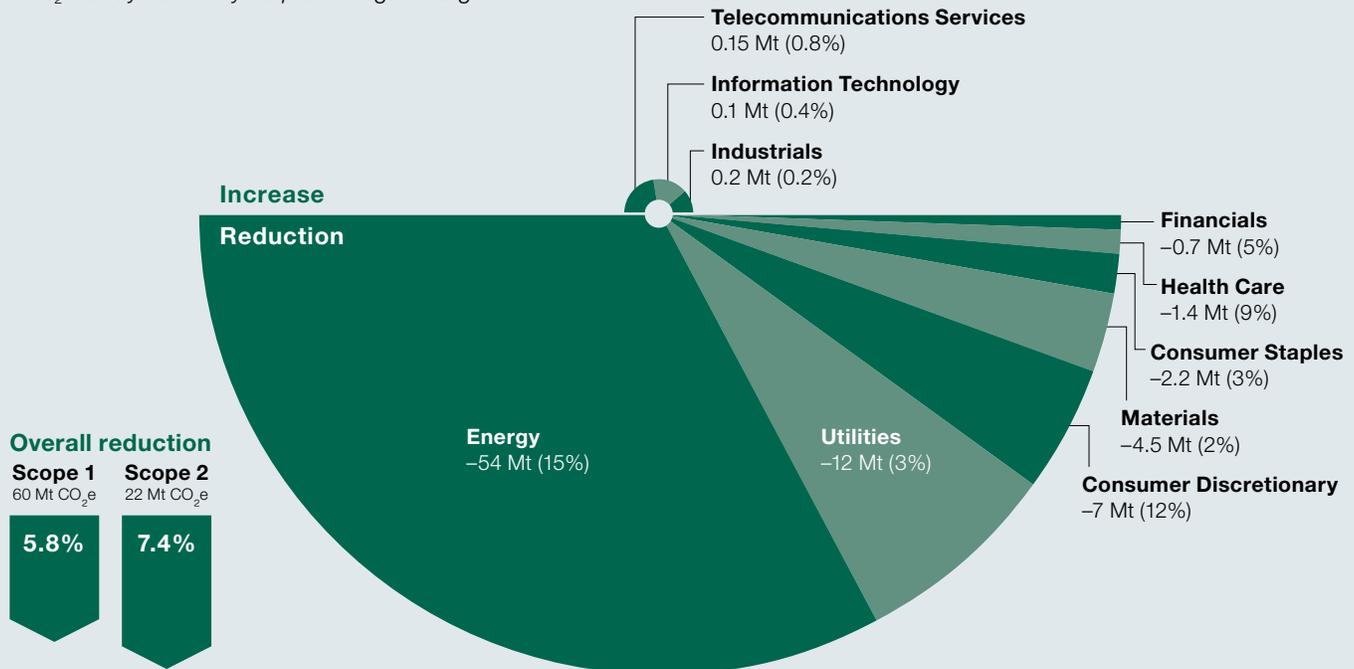
**Indirect:** From the generation of purchased energy (Scope 2)

**285** Mt CO<sub>2</sub>e  
(305 in 2012)



**Sample:** All 334 respondents. The above represents total disclosed emissions irrespective of changes in the dynamic population of responding companies in 2013 versus 2012. Percents do not total 100 due to rounding.

**Figure 3.** Annual change in emissions by sector  
Mt CO<sub>2</sub>e and year-over-year percentage change



**Sample:** 287 companies that disclosed in both 2012 and 2013 their Scopes 1 and 2 emissions, representing a total of 970 and 276 Mt CO<sub>2</sub>e, respectively, in 2013.

### Deep-dive on sector emissions

Progress, commitments, and investments must be examined—and expectations set—by sector, relative to their emissions contributions. Three carbon-intense sectors, Utilities, Energy, and Materials, account for 87% of all direct emissions (1,142 Mt CO<sub>2</sub>e). Distribution of indirect emissions is more uniform, a reflection of the demand across sector and industry for purchased energy. About two-thirds of indirect emissions reported (191 Mt CO<sub>2</sub>e) are from four sectors: Materials, contributing the most, at 27% (77 Mt CO<sub>2</sub>e), followed by Consumer Staples, Consumer Discretionary, and Energy.

### Deep-dive on sector progress

Figure 3 offers a contextualized picture of emissions reductions—that is, both the absolute emissions reductions of each sector and the relative reduction as a percentage of the sector's disclosed emissions. When the information is presented in this way, it becomes obvious which sectors are or are not driving the overall progress depicted above and which are making the greatest or smallest reductions in the context of their own emissions.

In absolute terms, 81% (66 Mt CO<sub>2</sub>e) of the reduction is driven by the Energy and Utilities sectors. The balance of the reductions comes primarily from two sectors—

Consumer Discretionary (7 Mt CO<sub>2</sub>e) and Materials (4.5 Mt CO<sub>2</sub>e). Compared with the prior year, Materials shows a 2% decrease and Industrials a 0.2% increase in emissions, which could be viewed as surprising given their relative contributions to the S&P footprint.

The president's Climate Action Plan introduces new regulation that may benefit ongoing corporate efforts, especially in the Utilities sector, because emissions standards require greater energy efficiency from all power consumers. Complementing state and regional policies, the federal guidelines direct the Environmental Protection Agency (EPA) to set carbon pollution standards for both new and existing power plants. This has significant implications for electric utilities and their customers, connecting Scope 1 utilities emitters with Scope 2 power consumers and driving both to seek low-carbon-energy alternatives.

### Value chain adds dimension to emissions picture

Not accounted for above are the outsized footprint and potential for reduction to be made by certain sectors in Scope 3 emissions, or those related to a company's value chain. This is explored later in the report.

## Performance driven by goal setting

“Entergy’s Utility has embarked on an effort to transform its generation portfolio. This business decision is linked to the company’s voluntary emissions reduction target, to maintain CO<sub>2</sub> emissions from Entergy-owned power plants and controllable power purchases at 20% below year 2000 levels through 2020, and the overall desire to increase the efficiency of its natural gas generation fleet, retire older, less efficient natural gas steam electric generating units, deliver affordable, clean reliable electric energy to our customers and position the company to prosper in a carbon constrained economy. These voluntary targets also result in higher overall company efficiency—this reduces costs while simultaneously reducing overall environmental footprint. Both of these factors can make the company more profitable and sustainable over the long term.”

### Entergy Corporation

“The company has both annual reduction goals as well as long-term goals. Our strategy is linked to achieving these targets, such as the company’s 25% greenhouse gas emissions reduction goal and 10% energy reduction goal by 2015. More investment is being made to improve the energy efficiency of our buildings, systems, and machinery. More projects are being funded because of the shorter payback period due to the higher energy costs. Reducing energy consumption reduces costs and improves business efficiency. Lower business costs improve competitiveness.”

### Raytheon Company

“Adobe has completed its environmental footprint assessment and the company can report that it has reduced or avoided 100% of its Scope 2 carbon emissions. Over the past several years, the company has invested in global workplace facilities projects, including next-generation lighting and clean renewable-energy systems, to reduce electricity usage, natural gas consumption, and carbon emissions. In 2012, Adobe announced plans to achieve net-zero consumption by 2015 for facilities in North America; these facilities currently account for more than 50% of the company’s total global emissions footprint. Adobe’s Net-Zero Energy strategy is to consume only as much energy as it generates in its owned and controlled sites, and to offset the remainder with investment in worthwhile renewable energy projects.”

### Adobe

Setting targets commits a company to reducing emissions. 75% of all S&P 500 respondents report targets in 2013.

## Commitments to reduce emissions

### Strategic intent to actionable goals

Setting targets formally commits a company to cutting carbon emissions. In 2013, 75% of all S&P 500 respondents report targets, up from 70% in 2012. Intensity targets, which aim to reduce the ratio of emissions relative to a business-specific metric (revenue, employee, square footage, etc.), are becoming more common (33%; 109 companies) than absolute targets (29%; 97 companies), with 13% (46 companies) setting both. Companies often set intensity targets because they are more comparable among peers, but unlike an absolute target, there is no guarantee that the intended effect—a reduction in greenhouse gas (GHG) emissions—will occur. The gap between total reported sector emissions and emissions of companies that set absolute targets is particularly large (in excess of 100 Mt CO<sub>2</sub>e) for Energy, Utilities and Industrials sectors.

Despite progress on setting near-term targets, only 62 of the 252 that set targets do so to 2020 or beyond, with just 8 companies setting targets beyond 2020, such as Dow Chemical Company (Materials; 2025) and EMC Corporation (Information Technology; 2050). In addition, only 57% of respondents that set Scope 1 or 2 emissions reduction targets this year met them or are on track to do so. Although this is an improvement from 2012 (47%), there remains a gap between intention and result.

### Weighting targets for analysis

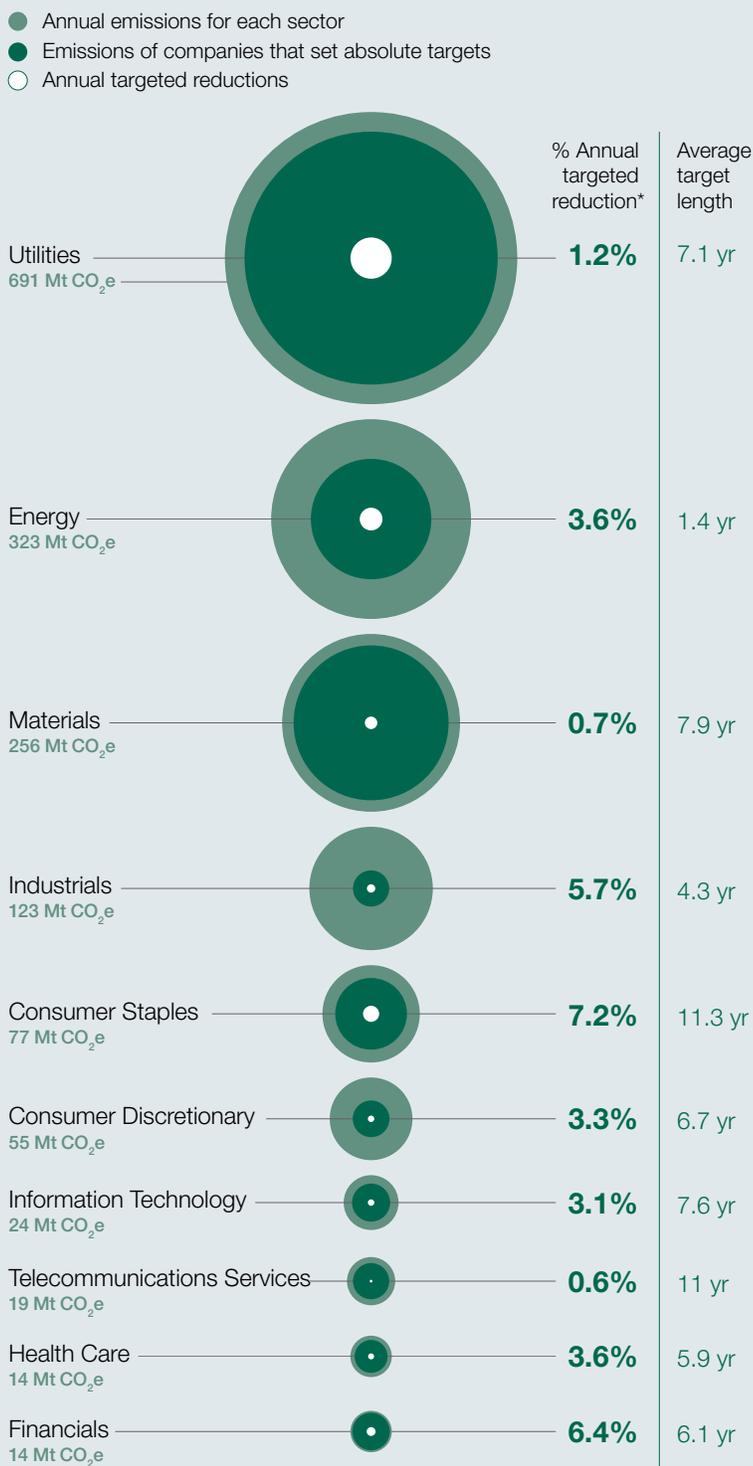
In comparing targets, it is important to recognize that companies have different baselines, different shares of targeted emissions in scope and different target percentages. To aid in analysis, the 2013 CDP report annualizes the disclosed absolute emissions targets to determine the true annual impact of targets set by S&P 500 respondents, in terms of CO<sub>2</sub>e and percent (of reported emissions) reduction. (See Figure 4.)

### Carbon-intensive sectors set most ambitious targets:

With a few exceptions, high-emitting sectors (Utilities, Energy, Consumer Staples, and Industrials) are setting the most-ambitious yearly targets in terms of CO<sub>2</sub>e impact, accounting for 86% (80.4 Mt CO<sub>2</sub>e) of the annual targeted reduction.

**...but ambition is relative:** When looking at the targets in annualized percentage terms and in the context of a sector's emissions and contribution to overall S&P 500 emissions, Consumer Staples, Financials, and Industrials are setting the most ambitious targets relative to their baselines, ranging from 7.2% to 5.7%. The Materials sector, despite being a significant emitter, has committed to absolute reductions of only 0.7% of its annual emissions per year. The overall annual targeted reduction, across all sectors, is 1.5%.

**Figure 4.** Targets  
in Mt CO<sub>2</sub>e



\* Of those companies that set absolute targets.

## Investments to reduce emissions

### Investments made and savings unlocked

Following the financial path of a company's investments to reduce emissions is an effective means to identify priorities, understanding that each sector has a unique mix of characteristics and value propositions that determine how and where it invests. Improved information provides insight into the relationship between corporate investments and the benefits to both business and the environment. This year, there is a 22% increase to 68% in the number of responding companies able to communicate the link. Figure 5 on the following page summarizes S&P 500 reported data spanning invested dollars, areas of focus for emissions reductions, savings yielded, and payback periods. Greater detail is provided in the sector snapshots.

Note that the validity of any implied relationship drawn from the following may be limited because some companies are unable to report all three metrics (dollars invested, dollars saved, CO<sub>2</sub>e reduced) for each disclosed project. For deeper analyses, refer to company-specific information on a project basis.

### Who is investing and how much?

S&P 500 respondents report committed investments of \$50 billion, constant with the prior year, on a range of emissions reduction activities and energy-savings processes. The Energy sector leads in terms of reported dollars invested (\$27.3 billion), followed by Utilities (\$13.7 billion), Industrials (\$3 billion), Telecommunications Services (\$2.1 billion), and Information Technology (\$1.5 billion). The remaining sectors' reported investments fall under \$1 billion each. Investments represent 4.3% (7.6% for CDLI/CPLI companies; 3.7% for others) of total capital expenditure (capex). The disparity among the sectors is notable, with figures ranging from less than 1% of capex for Consumer Discretionary to almost 9% for Energy and 23% for Utilities.

### Spotlight on low-carbon-energy installation

Across all sectors, 65 companies disclose investments or benefits from recent installations of low-carbon energy. A total of \$6.6 billion is invested, a \$4-billion increase from prior year. Of that total, 98% is by companies in the Utilities sector.

Companies in the 2013 leadership indexes account for almost two-thirds (64%; \$32 billion) of the total invested capital, with substantial commitments such as Chevron Corporation's (Energy; \$18 billion) Gorgon Project, which will include the world's largest commercial-scale GHG storage site, with capacity for 3.4 Mt CO<sub>2</sub> injected and stored; CSX Corporation's (Industrials; \$1.6 billion) capital-intensive fuel efficiency measures for locomotives; and Exelon Corporation's (Utilities; \$3.2 billion) completion of six wind projects this year, adding 404 megawatts (MW) of wind capacity.

### What are companies investing in?

As Figure 6 indicates, responding companies are directing almost half (\$24.2 billion) of all invested capital into process emissions reductions, with 98% of investment in this activity coming from the Energy sector which makes up 43% of reported direct and indirect emissions. This includes companies' clean or lower-carbon-energy exploration projects such as Newfield Exploration Company's gas-oil separation plant—which eliminates production equipment at each well site—and CONSOL Energy Inc.'s project to install the largest coal mine ventilation air methane (VAM) abatement project in the US.

Low-carbon-energy installation (\$6.6 billion) ranks as the second-highest area of reported investment, with a focus on solar projects (48 projects), followed by natural gas (19), wind (12), and geothermal (3) projects. Investment in energy efficiency processes (\$4.6 billion) follows. At the lower end of the spectrum are energy efficiency related to building fabric (\$322 million), transportation use (\$316 million), and behavioral change (\$157 million).

Each sector's invested capital exhibits a particular focus in line with companies' respective value propositions as they relate to climate change. Of the total annual investment by sector, Consumer Discretionary invests 64% (\$118 million) in energy efficiencies related to building services; Information Technology invests in product design (73%; \$1.1 billion); Industrials, in transportation fleet (89%; \$2.6 billion); and Utilities, in low-carbon-energy installation (50%; \$6.4 billion). This is further detailed in the sector snapshots.

### Where are savings realized?

Even though 227 companies in 2013 are able to formally attribute specific monetary and GHG savings to their emissions reduction activities, in absolute terms only a handful of companies claim the lion's share of reported savings. Twenty companies generate 85% (\$3.5 billion) of the monetary savings reported by all S&P respondents, and 20 companies are responsible for nearly 90% (112 Mt) of all reported CO<sub>2</sub>e savings that result from the disclosed emissions reduction activities. Seven of the companies overlap across both lists, underscoring the ability to attribute savings to climate-related investments: Ameren Corporation, AT&T Inc., Dell Inc., Exelon Corporation, Northeast Utilities, Wal-Mart Stores Inc., and Waste Management, Inc.

Three types of initiatives appear to result in the most *monetary savings* during the reporting year:

1. product design (\$1.2 billion),
2. energy efficiency processes (\$991 million), and
3. transportation fleet and use (\$709 million).

Information Technology, Industrials, and Consumer Staples companies are increasingly designing products to be regenerative or recoverable. These products are proving to reliably generate income streams, such as Kroger's jointly developed wrapper-sealer machines (\$7.2 million investment committed; \$2.4 million saved) and

**Figure 5.** Investments made and savings unlocked

### Who is investing?

**#1 Energy**  
\$27.3 Bn

**#2 Utilities**  
\$13.7 Bn

### Greatest increase in investments

(More than doubled from prior year)

Telecommunications Services

Financials

Consumer Staples

**#3 Industrials** (\$3 Bn) **#4 Telecommunications Services** (\$2.1 Bn)

This is consistent with relative sector contribution to total reported emissions for S&P 500

### How much?

**0.5% to 23%** of capex

Consumer Discretionary

Utilities

**Leaders** invest **8%** of capex versus **4%** overall

### In what?

**#1** Process emissions reductions

**#2** Low-carbon-energy installation ◀◀◀

**#3** Energy efficiency processes

**\$4-Bn**  
increase  
since  
last year

### What are the savings?

\$

**#1** annual monetary savings

**Product design**

\$1.2 Bn

**#2** Energy efficiency processes: \$991 M

**#3** Transportation fleet and  
Transportation use: \$709 M

CO<sub>2</sub>e

**#1** annual GHG savings

**Process emissions reductions**

12.9 Mt CO<sub>2</sub>e

**#2** Low-carbon-energy installation:  
12.7 Mt CO<sub>2</sub>e

**#3** Product design: 11.3 Mt CO<sub>2</sub>e

### Who is realizing the savings?

**20** companies  
claim

**>85%** of the total monetary  
and CO<sub>2</sub>e savings  
from investments

### When is the payback?

Companies are balancing quick-return, low-cost projects with capital commitments that invest in the future.

**69%** of projects **<3 years**

**77%** of \$ invested **4–10 years**

### Shortest payback

Product design, Transportation fleet, Transportation use

Clorox Company’s namesake bleach, which reduces the amount of resin plastic, paper packaging, and water by a third (\$3-million investment committed; \$5 million saved).

In terms of CO<sub>2</sub>e savings, the catch-all “other” (63.5 Mt CO<sub>2</sub>e) yields the greatest reported annual savings; it spans a range of actions, including product energy performance improvements (Dell Inc.); broadly available, efficient recycling services (Waste Management, Inc.); internal equipment upgrades (Entergy Corporation); and carbon capture and storage (Plum Tree Timber Co. Inc., and Ameren Corporation).

Additional activities with high CO<sub>2</sub>e reductions include:

- process emissions reductions (12.9 Mt)
- low-carbon-energy installation (12.7 Mt),
- low-carbon-energy purchase (11.3 Mt),
- product design (11.3 Mt), and
- energy efficiency processes (8.1 Mt).

Associated benefits achieved beyond financial and GHG savings include employee support, design-driven culture, operational change, and brand enhancement.

**When is the payback?**

Almost 70% of investment projects fall within the 3-year or less payback window. In terms of dollars invested, however, 77% generate a return of capital over a 4- to 10-year period, indicating that companies are balancing short-term wins with longer-term foresight.

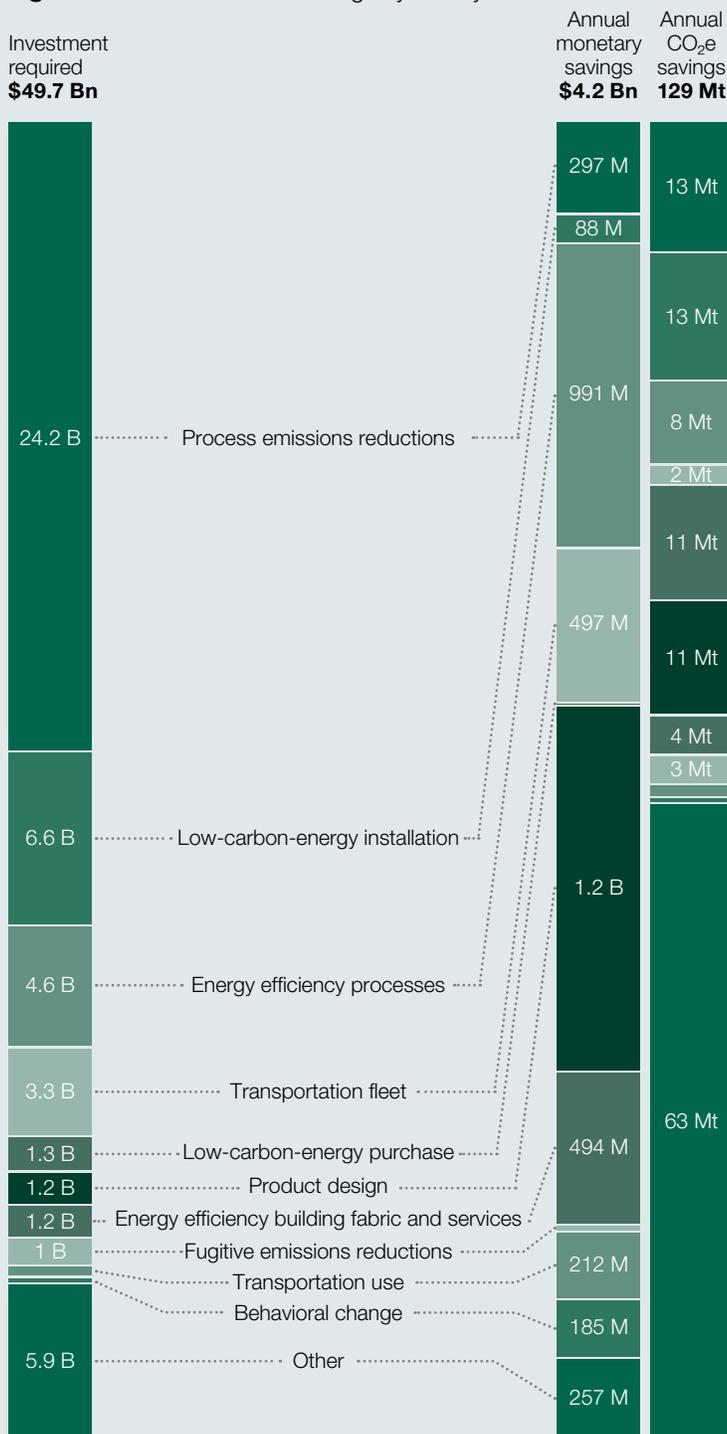
Companies linking climate change strategy to strategic advantage invest more for the long term (3+ years) than do other companies (65% vs. 35%). Still, only 65 companies are looking beyond a 10-year return, with three-quarters of their investment projects pertaining to building-related energy efficiency initiatives, various energy efficiency processes, and low-carbon-energy installations. Not surprisingly, half of these companies also disclose climate-change-related exposures and opportunities 10 years out.

Across all reported investments, payback varies by activity. For example, on one hand, 80% of behavioral change initiatives, such as sharing best practices and equipment shutdowns, pay off in less than 1 year. On the other hand, 91% of all monies put into process emissions reductions—such as gas-flaring reductions and turbine replacements—pay off in 4 to 10 years. In terms of the number of initiatives that companies have undertaken, 30% are paid back immediately or in less than 1 year, and another 39% in 1 to 3 years.

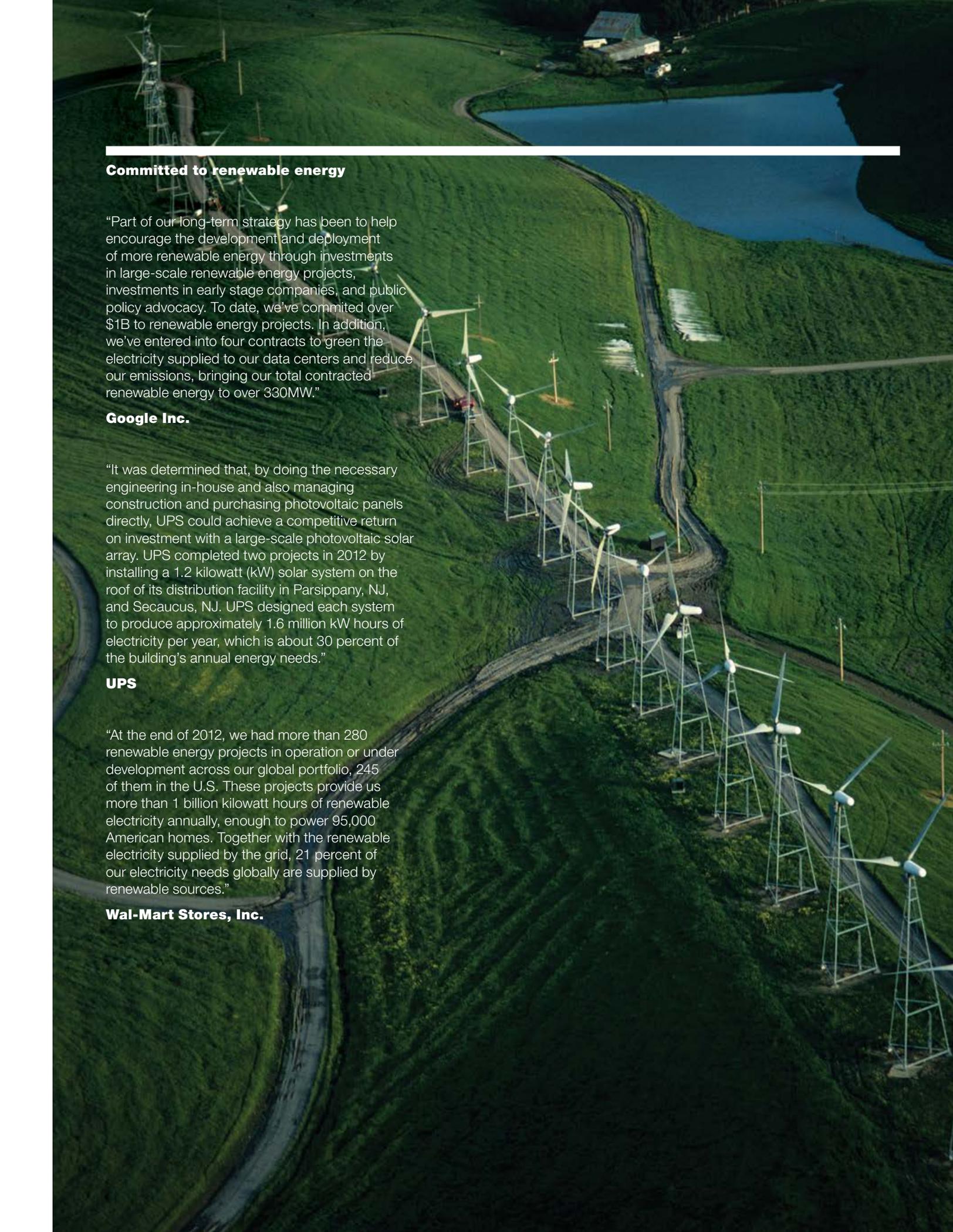
**Employees drive investment throughout the enterprise**

Over half (179) of respondents are enabling productive investment in carbon-cutting activities by engaging their employees. In fact, many cite employees as a decisive advantage in affecting the enterprise culturally and practically to achieve reduced emissions both enterprise-wide and down to the product level. ▽

**Figure 6. Investments and savings by activity**



**Note:** “Other” spans a range of projects, including product energy performance improvements (Dell), recycling services (Waste Management), internal equipment upgrades (Entergy), and carbon capture and storage (Plum Tree and Ameren). Information above is based on reported investments and savings in question 3.3b. In limited instances, quantitative data for each category of disclosed activities was not reported, which limits any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions.



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## Committed to renewable energy

“Part of our long-term strategy has been to help encourage the development and deployment of more renewable energy through investments in large-scale renewable energy projects, investments in early stage companies, and public policy advocacy. To date, we’ve committed over \$1B to renewable energy projects. In addition, we’ve entered into four contracts to green the electricity supplied to our data centers and reduce our emissions, bringing our total contracted renewable energy to over 330MW.”

### Google Inc.

“It was determined that, by doing the necessary engineering in-house and also managing construction and purchasing photovoltaic panels directly, UPS could achieve a competitive return on investment with a large-scale photovoltaic solar array. UPS completed two projects in 2012 by installing a 1.2 kilowatt (kW) solar system on the roof of its distribution facility in Parsippany, NJ, and Secaucus, NJ. UPS designed each system to produce approximately 1.6 million kW hours of electricity per year, which is about 30 percent of the building’s annual energy needs.”

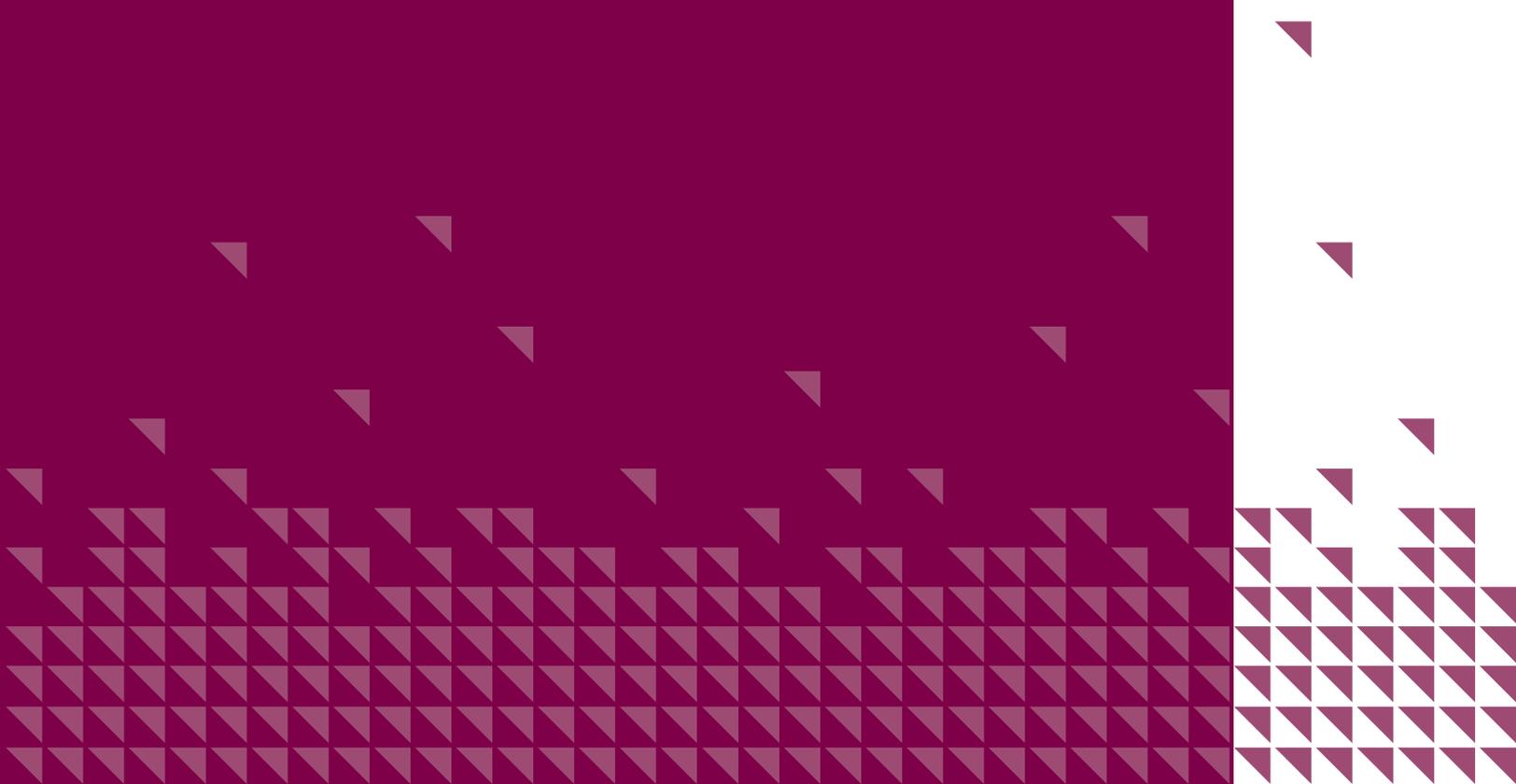
### UPS

“At the end of 2012, we had more than 280 renewable energy projects in operation or under development across our global portfolio, 245 of them in the U.S. These projects provide us more than 1 billion kilowatt hours of renewable electricity annually, enough to power 95,000 American homes. Together with the renewable electricity supplied by the grid, 21 percent of our electricity needs globally are supplied by renewable sources.”

### Wal-Mart Stores, Inc.

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**Business  
transformation:**  
Preparing for  
the impacts of  
climate change



**Active management of climate change is now a necessary component of continued viability and success, and business transformation lies at the core. The transformation process experienced by companies managing climate change goes beyond strategic targets and investments to reduce emissions. Preparedness, adaptability, and operational speed—all of them characteristics of a resilient organization—mark the adaptation of business models designed to gain competitive advantage and to protect infrastructure, customers, and supply chains.**

Well-documented impacts of wildfires, drought, tornadoes, and especially Hurricane Sandy in the past year have moved companies to reexamine how they prepare for the impacts of climate change and adapt business models to more fully address both the risk and opportunity presented. These high-profile events have also caused investors to become more aware of potential company exposure. Now, resiliency—the ability to recognize and rapidly and effectively adapt to changes<sup>1</sup>—has become a major focus of both executives and policy makers, with the president’s 2013 Climate Action Plan serving as a recent high-profile example.

Responses to this year’s CDP questionnaire present clear evidence that leading companies are exploring a systemic approach to building resiliency into all aspects of their business and culture.

#### **Visionary strategies reported across industries**

**Wine and spirit leader Brown-Forman Corporation’s B-F 150 strategy** competitively positions the company to become a “resilient organization with sustainable growth in emerging and existing markets, with business continuity mechanisms well aligned with risks and opportunities arising from climate change.”

**Technology retailer Best Buy Co. Inc. uses “the strength of our people** and our organization to: systematically manage and continuously improve the environmental performance of our operations and supply chain” and “help consumers make more sustainable technology choices by working to constantly improve the electronics value chain—from the way technology products are manufactured and packaged, to the efficient use of resources during the creation and life of the products, to the availability of services to help consumers extend a product’s life, as well as to smart disposal options at the end of a product’s life.”

**Software design firm Autodesk, Inc. enables resiliency**, providing tools for “more than 12 million architects, designers, and engineers who plan cities, design buildings, supply people with energy and water, make consumer products, and develop manufacturing processes.” The company’s vision is to “help people Imagine, Design and Create a Better World.”

**Electric service provider Pepco Holdings Inc.’s Blueprint for the Future** aims to help customers better manage their energy use and reduce the total cost of energy. This year, the company “actively pursued the integration of renewable energy into the electrical grid,” focusing on infrastructure development as a way to “enhance reliability, achieve maximum efficiency, and increase access to renewable and other lower-carbon electricity sources.”

Risks

77%

of respondents report risks related to climate change, up from 61% in 2012

Opportunities

78%

of respondents cite business opportunities related to climate change, up from 59% in 2012

# Management focus on risks and opportunities

## The business case for resilience

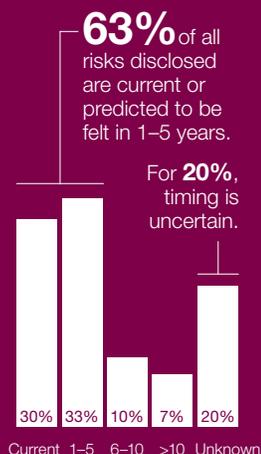
Through the day-to-day course of running a business and managing risk, companies are identifying climate-related threats to the existing model, implementing solutions to mitigate immediate risk, and creating adaptation strategies for unknown future hazards. At the same time, management is looking at climate change with a competitive mind-set and finding opportunities to enable the creation of value both within the enterprise and at large.

The drive to produce decision-useful data is enabling responding companies to better understand and communicate the impact, likelihood, time horizon, and financial implications of taking action. The dashboard below, together with company-specific accounts, provides a multidimensional picture of how they are mapping, measuring, and managing risks and opportunities.

**Figure 7.** Climate change risks and opportunities profile

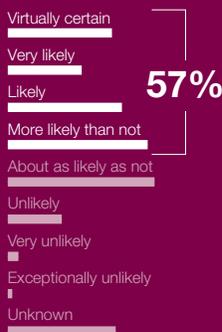
## Risks

### Now or later?



### Likelihood

57% of all risks disclosed fall between more likely than not to virtually certain.



### Direct or indirect?

**75%** of risks identified are direct to company operations.



### Risk drivers

Extreme weather tops the list of high-impact exposures.

- #1** Change in precipitation extremes and droughts (Physical)
- #2** Tropical cyclones (Physical)
- #3** Reputation (Other)
- #4** Carbon taxes (Regulatory)
- #5** Cap and trade schemes (Regulatory)

Prioritized by # of companies disclosing risk driver as high impact

### Impact

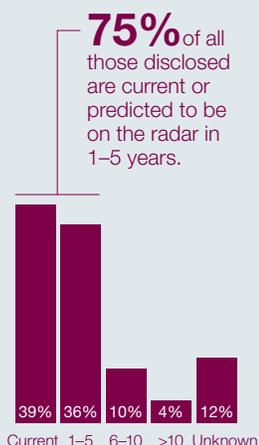
- #1** Increased operational cost (72%)
- #2** Reduced demand for goods and services (51%)

Percentage indicates respondents that disclose the above impact

and

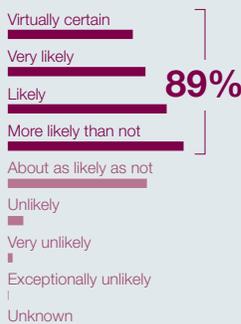
## Opportunities

### Now or later?



### Likelihood

89% of all opportunities disclosed are likely to materialize.



### Direct or indirect?

**79%** of opportunities disclosed are direct.



### Opportunity drivers

Customers are still the engine of growth, and regulation is cast in a favorable light.

- #1** Changing consumer behavior (Other)
- #2** Reputation (Other)
- #3** Product efficiency regulations and standards (Regulatory)
- #4** Other regulatory drivers (Regulatory)
- #5** Fuel/energy taxes and regulations (Regulatory)

Prioritized by # of companies disclosing opportunity driver as high impact

### Impact

- #1** Increased demand for existing products and services (65%)
- #2** New products and business services (65%)

Percentage indicates respondents that disclose the above impact

## Climate change risks

In 2013, over three-quarters of S&P 500 respondents disclose exposure to climate change across physical, regulatory, and other risk drivers, an increase from two-thirds in 2012. Key takeaways from the risk dashboard are summarized below, along with detail around management of risks considered high impact.

### Risks: Five key takeaways

Figure 7 shows:

- The business case for immediate risk management strategy is defined by both imminence (63% risks reported) and uncertainty (20%), underscoring the importance of proactively building for and enabling resiliency. Over a quarter of companies are farsighted in their mapping of risks: 92 respondents report exposures 6–10 years out, and 72 companies, beyond 10 years.
- The perceived likelihood of occurrence is high, with the majority of risks (57%) identified on the spectrum between likely and virtually certain.
- The majority of exposures (75%) are direct to operations, but respondents' peripheral vision for risk extends both upstream and downstream.
- Physical risks related to extreme weather, disclosed by 155 companies, are the most commonly reported as high impact.
- Economics—in the form of increased operational cost—most commonly compels action (72% companies; 63% in 2012).

### Drivers of risk

Overall, 68% of respondents identify exposure to physical risk, versus 51% in 2012. This difference is reflected in respondents' ranking of high-impact risk: change in precipitation extremes, droughts, and tropical cyclones (hurricanes and typhoons)—all of them extreme-weather related—top the list, followed by reputation, carbon taxes, and cap-and-trade schemes.

Notably, 2012 domestic economic losses from weather-related events totaled \$119 billion,<sup>2</sup> a significant increase over 2011 totals (\$75 billion).<sup>3</sup> As losses become routine, more companies—across all industries—are openly disclosing dollar value impacts associated with exposures. Eaton Corporation estimates damage to one manufacturing plant due to a severe weather incident could approach \$10 million–\$15 million, and the company is responding with enhanced worldwide emergency response capabilities.

With physical underpinnings more frequently affected, new business norms are being established in response, and the need for continual evaluation of the business model has become more common. A look at the most-disclosed risks provides valuable insight into how affected companies manage them, accordingly.

### Peripheral vision for climate risk

Although only 25% of the disclosed risks have a designated indirect impact, half of all respondents disclose at least one risk that is indirect via customer/client or supply chain. Responses indicate that companies, especially those dependent on agricultural raw materials (e.g., The Hershey Company, Starbucks Corporation, ConAgra Foods, Inc.), are working to build resilience to supply shocks and high-input costs and realize efficiencies in the supply chain.

#### #1—Change in precipitation extremes and droughts:

Goldman Sachs Group and Molson Coors Brewing Company are each anticipating the implications of drought specific to their value propositions: air-conditioning needs for primary data centers (where heat from server farms is managed by cooling towers<sup>4</sup>) and changes in the barley harvest, respectively. A number of S&P 500 companies cite evaluation of water-related risks at individual manufacturing facilities as their most substantial business decision this year (e.g., Colgate-Palmolive Company).

**#2—Tropical cyclones:** This ranking appears due largely to the impact of Hurricane Sandy on business operations. Abercrombie & Fitch Co. reports that the superstorm caused \$10 million in lost store sales and approximately \$750,000 in lost direct-to-consumer sales; Johnson & Johnson discloses that Sandy resulted in a week of lost employee productivity (2% annual); and for Bank of America, the total operational losses on facilities is estimated to be approximately \$18 million.

Across all industries, risk management plans are being revised to embed extreme-weather considerations, thus sharpening product contingency sourcing plans, procurement strategies, and logistics plan B business readiness. Companies are applying resilient design standards in structural engineering upgrades and formalizing well-rehearsed storm management plans and procedures.

**#3 & #4—Reputation and regulations:** Nonoperational risk—including risk to reputation and both carbon taxes and cap-and-trade schemes—is also considered high impact: 69% of respondents report regulatory risks, up from 56% in 2012, and companies across sectors are revealing the financial implications associated with operating in an environment where carbon is regulated. To address potential regulatory risks driven by current and future costs of carbon, leading companies are beginning to formally implement carbon cost sensitivity analyses. Hess Corporation, for example, now “incorporates carbon life cycle tools into our evaluation model for new upstream investment decisions greater than \$50 [million]. The cost of carbon was included in project economics for all in carbon-regulated areas. In all other areas, the cost of carbon was included as sensitivity in project economics.”

2. Thomas Seiler, Daniel Staib, and Dr. Mahesh Puttaiah, *Sigma* (3:2013), Swiss Re Economic Research & Consulting, 2013. Available at: [http://media.swissre.com/documents/sigma3\\_2013\\_en.pdf](http://media.swissre.com/documents/sigma3_2013_en.pdf).

3. Sven Harmeling and David Eckstein, *Global Climate Risk Index 2013*, Germanwatch, 2012. Available at: [www.germanwatch.org/en/cr/](http://www.germanwatch.org/en/cr/).

4. Rich Miller, “Data Center Water Use Moves to the Forefront,” *Data Center Knowledge*, Aug. 14, 2012. Available at: [www.datacenterknowledge.com/archives/2012/08/14/data-center-water-use-moves-to-center-stage/](http://www.datacenterknowledge.com/archives/2012/08/14/data-center-water-use-moves-to-center-stage/).



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## Lessons in resilience

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“The 2012 Superstorm Sandy event was the perfect example of a major test of BNY Mellon’s business continuity plans. Three major lower Manhattan facilities housing approximately 4,163 employees remained closed for ten (10) business days. Utilizing alternate work locations, designated for business recovery, combined with remote computer access technology, BNY Mellon successfully executed recovery plans providing uninterrupted operations and service to our clients. BNY Mellon will take additional measures beginning in 2013 to further harden the Superstorm Sandy affected facilities for future similar events. These capital projects are anticipated to be a total of \$25M spend from 2013 through 2015. Additionally the repairs to infrastructure as a result of Sandy were approximately \$10 M USD.”

**BNY Mellon**

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“In 2012, the cost of restoration efforts after Superstorm Sandy for both Con Edison of New York and Orange and Rockland incurred response and restoration costs of \$431 million and \$90 million, respectively. Con Edison recognizes that the impact of climate change on the frequency and intensity of storms as well as on sea level rise (which will impact storm surge) could greatly impact our infrastructure and therefore customers, as it did with both this storm and Hurricane Irene the year prior. Last year we proposed \$1 billion for measures to fortify and protect our systems. We plan to install stronger flood barriers and more submersible equipment, raise critical equipment, and strategically bring overhead power lines underground. We will install additional state-of-the-art monitoring sensors, switches, and related smart-grid technologies to improve the flexibility of our system.”

**Consolidated Edison, Inc.**



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“In 2012, ACE recorded net pre-tax catastrophe losses of \$633 million, primarily from Superstorm Sandy. ACE’s risk management modelling and underwriting practices continue to adapt to the developing risk exposures attributed to climate change. For example, due to the fact that the earth’s climate appears to be changing in ways inconsistent with the historical record upon which catastrophe models draw data, ACE has adopted a more short-term view of event frequency that is higher than the long-term historical frequency.”

**ACE Limited**

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“Superstorm Sandy provides a recent reminder of the potential impact of extreme weather on the U.S. economy and Verizon’s networks. Our company has spent significant time and money rebuilding its wireline and wireless networks in the New York and New Jersey areas and we reported a 7-cent-per-share impact due to the storm in our 4th quarter 2012 earnings. As part of the restoration effort we have replaced the legacy copper with fiber optic, which is not as susceptible to damage due to flooding.”

**Verizon Communications Inc.**

### Climate change opportunities

Thinking and building for resilience is not limited to the management of risk components. It also means uncovering the places resiliency-associated opportunities lie and pursuing them to profitably succeed in a different environment. Entire new product categories are in development that embed concepts of resiliency in their core designs. Such opportunities have not been lost on respondents, 78% of which cite business opportunities related to climate change, up from 59% in 2012.

### Capturing opportunity in the value chain

Even though 79% of all opportunities are designated as direct impact, 120 companies across all sectors, from Gap Inc. and Walt Disney Company (Consumer Discretionary) to Pfizer Inc. and Amgen, Inc. (Health Care), to Norfolk Southern Corp. and Ingersoll-Rand Co. (Industrials), have an eye for those in the supply chain and those related to customers—or customers' customers.

### Opportunities: Five key takeaways

Figure 7 shows:

- Opportunities (75% of those disclosed) are being realized now or within the next five years, and some companies are looking well into the future. There are 88 companies that disclose climate-change-related opportunities 6–10 years out, and 33 are looking beyond 10 years.
- The likelihood of what can be realized now and within the next 5 years (89% of opportunities) is coming into focus.
- Although the majority of opportunities disclosed (79%) are direct to operations, companies increasingly have their eyes open for those in the supply chain.
- Changing consumer behavior is the defining opportunity. Not only is it the most commonly disclosed opportunity driver (half of all respondents); it is also most commonly designated as high impact.
- Increased demand for existing or new products and services is of highest impact for 235 companies.

### Drivers of opportunity

Changing consumer behavior is followed by reputation and regulation as having the highest impact on respondents' businesses.

**#1—Changing consumer behavior:** Climate-related opportunities are most commonly framed in terms of the customer or client. Although this is true across sectors, there are distinct customer profiles within industries. For example, Wyndham Worldwide Corporation's opportunity lies in the Lifestyle of Health and Sustainability market, valued at over \$290 billion. Raytheon Company estimates "likely" increased demand for "products and services, such as radar and sensing technologies for weather prediction, and civil command/communication systems."

In the past several years, companies have seen—as articulated by ConAgra Foods Inc. —their climate-related efforts evolve from singular projects to "a model for how we do business and [a] mechanism to further our relationship with customers and other stakeholders." For Waste Management Inc., "the costs of developing new technologies to respond to customer demand [...] are not sunk costs," but "investments [...] expected to generate revenue and profit for the company." The Home Depot Inc.'s energy-efficient products already account for sales of approximately \$6 billion. In the retailer's analysis, a 5% shift in consumer behavior "would represent \$300,000,000 in sales" in this category.

**#2—Reputation:** Reputational considerations manifest across a broad spectrum of respondents' corporate identity. HCP, Inc. reports the reputational opportunity associated with its commitment to ecoefficiency, drawing tenants, opening up green leasing options, and increasing revenues. For Hess Corporation, "top quartile sustainability disclosure and management" may bring increased access to debt and equity. To manage this opportunity, the energy company publicly discloses its climate change strategy, programs, and performance, among other initiatives, in line with best practices followed by other S&P 500 leaders.

**#3—Regulatory drivers:** 69% of respondents identify regulatory-related opportunity, with product efficiencies and standards most commonly designated as high impact. S&P 500 responding companies are approaching product efficiency standards as a means to realize marketplace gain. Lockheed Martin Corporation, for example, claims competitive advantage from its unique energy efficiency services portfolio, which offers "solutions and systems integration capabilities to US Government customers," as well as to "cities and other countries that might be facing challenges related to energy, climate change, land use, water conservation, waste reduction, and other environmental and safety aspects."

Increased demand for existing or new products and services are the impacts of highest magnitude. By developing new products and services—or redesigning old ones—that respond to anticipated climate change risks, companies report being better equipped to create and capture new value. Air Products & Chemicals, Inc. dedicates more than 50% of the company's R&D spending (about \$126 million in fiscal 2012) to environmental and energy efficiency offerings. Sigma-Aldrich Corporation estimates that "increasing demand for analytical products will account for an increase in annual sales of approximately \$500,000 to \$3 million." Cisco Systems, Inc. reports that between traditional information technology and the evolving modernized grid components, "nearly \$25 billion will likely be spent each year by the world's electric utilities. Nearly one-third of recent, annual information technology investments within electric utilities will be related to modernizing grids. Cisco's opportunity could exceed \$1 [billion]."

# Assessing business transformation

## Continuum for climate change management

The 2011 and 2012 CDP reports featured an enterprise value continuum to represent how companies advance as climate change awareness, compliance, and mitigation evolve into levers for strategic advantage. The path flowed from reassessment of risk management and operational effectiveness to business opportunity. This year, the continuum has evolved to reflect the nonlinear structure of the transformation process, illuminate progress made over the prior year, and bring attention to gaps.

The key performance indicators listed in the graphic below are proxies for depth of commitment to rethink and reshape business models and behaviors. These indicators include executive-level oversight, integration of climate change into risk management and business strategy, prioritization of accountability and transparency, and redefinition of incentive structures to enable new norms. The framework has expanded to include demonstration of both value capture (i.e., translating results into business terms) and value creation (i.e., identifying and seizing opportunities). Certain indicator categories, such as emissions targets, align more

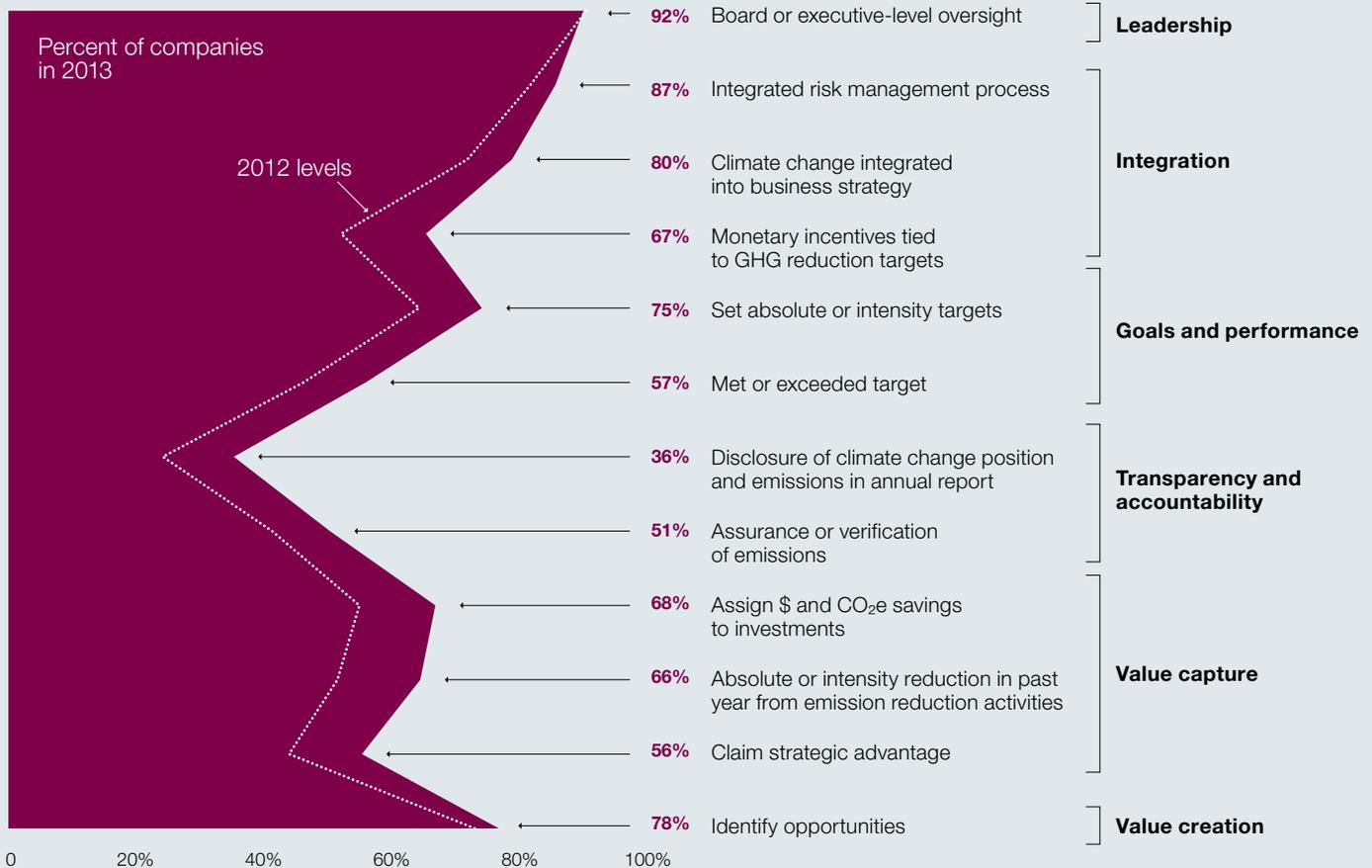
closely with other themes in this report; the focus here is on those specifically related to managing climate impacts.

## Broad progress

The 2013 data demonstrates, across all indicators, that more S&P 500 companies and executives have reached a new level of climate change management maturity and can securely expand on established practices. That there was a marked increase from prior year in the number of companies that obtained emissions verification/assurance—and well over half of those companies assured 90–100% of their disclosed emissions—points to growing confidence in companies' measured footprints. It also underscores management's priority to integrate mission-critical climate-related data with financial data.

Also notable was the progress made across all value capture indicators. The number of companies able to translate emissions reduction efforts into a language of returns and both create and articulate competitive advantage from managing climate change risks and opportunities is growing.

**Figure 8.** Key performance indicators of strategic transformation  
Percentage of companies reporting activity by year



### The narrowing gap between leaders and nonleaders

Complementing overall progress on the listed indicators is a convergence over the prior year between leaders and other companies. Two exceptions to this persist. The first is predictable: attaining emissions verification/assurance, as it is a prerequisite for CPLI consideration. Second, leaders remain distinguished by their claim on competitive advantage in managing climate change (95% leaders; 47% nonleaders). Examples of how leading companies perceive their created advantage are presented in the sector snapshots beginning on page 40.

This general transformation advancement reflects companies' accumulated experience in mapping risks and opportunities related to climate change, assuring data, meeting targets, building technological capabilities, refining materiality and, increasingly, being able to capture the value and impact of investments—all of them essential competencies in transforming the business model to defensibly and proactively manage climate change.

## Institutionalizing change

### Levers of change

The strategic continuum and the risk and opportunities dashboard, taken together, reveal current thinking behind the climate-change-related strategy and operational decision making that affect company transformation. They also shine an assessing light on a company's understanding of the connection between its business model and “the broader environmental, economic, and societal context in which the company operates”—something of particular interest to investors in gauging a company's “ability to create value over time.”<sup>5</sup>

As strategy and management decisions are made, a change in business requires the effective and scaled mobilization of both human resources and technology to be successful. Thus, respondents' integration of climate change into risk and opportunity management is one of cultural and technological evolution. This comes through most obviously in new and evolving business-reporting timelines, creative inputs, cross-organizational teams, and an expanding availability of climate-related real-time data.

### People

Targets (75% of all respondents; 98% of leaders) and incentives (67% of all respondents; 95% of leaders) are set to mobilize enterprise-wide cooperative efforts in managing climate change at companies as different as Hormel Foods and Praxair Inc., where employees at all levels and across all functions are engaged. Also pivotal to business transformation is shared environmental data flow that connects people from the plant floor to the CEO's office at Campbell Soup Company.

### Technology

Climate-change-related management is critically dependent on tapping real-time, centralized technology. A central nervous system enables both scaled and higher-resolution measurement of footprints, exposures and opportunities—especially in energy efficiency (smart meters, performance contracting, demand response), water (scarcity mapping), transit (route optimization), the built environment (management systems for lighting, HVAC), and agriculture (mapping of harvest, automated seeding).

As sophisticated, measured management becomes a fact of business life, companies are looking to bring into focus the global picture of their operations' footprints. At the same time, they are developing appetites for detail and accuracy. Both of those objectives require massive amounts of reliable data to be collated and analyzed. From aerospace and defense leader Northrop Grumman Corp. to beverage companies such as Brown-Forman Corporation, the substantial climate-related business decision disclosed by S&P 500 respondents is a move to enterprise-wide energy management systems and centralized platforms for tracking environmental data. Such companies are building new points of business intelligence in pursuit of resiliency and emissions reductions—and in doing so, changing the ways they operate. ▼

5. Mike Krzus, Brian Ballou, and Dan L. Heitger, *The Economics of Sustainability Initiatives*, AICPA white paper, June 2013.

## PwC commentary



Leading companies are innovating to create value on many levels while demonstrating increasing sophistication and confidence in addressing the risks and opportunities associated with climate destabilization.

Today, companies that are successfully responding to climate change are doing so by transforming the way they do business. Those that are succeeding are creating competitive advantage and broad influence.

Companies are finding opportunity in direct money-saving actions. They are also seeing returns on investment in increased productivity, strengthened brand, and reduced risk. Already, 95% of the leading CDP S&P 500 companies claim strategic advantage from integrating a response to climate change into their business strategy, compared with 47% of the rest.

But there's also a deeper and more resonant reason that leading companies are acting: the opportunity to leave a legacy beyond creating financial wealth.

To meet this obligation to future generations—and the future business community—leading companies are transforming their businesses in a way that begins to disconnect growth from resource and energy consumption, signaling a fundamental cultural shift.

At PwC, we believe that creating a cultural shift is essential if transformational change is to really take hold. S&P 500 responding companies are using their best resource—their people—to mitigate the effects of climate change. More than half are focused on engaging their employees in the response to climate change, making it the number one activity in driving emissions reductions.

Employees are engaging through green teams, sustainability networks, and climate councils. People are encouraged to create and drive emissions reduction initiatives and reach into the value chain. The result: a growing cadre of corporate ambassadors spreading organizations' climate change perspectives. The needed culture change is well under way.

Leadership teams play a key role in business transformation. Using their deep knowledge of operations and processes, they create a compelling vision for change, set

targets, manage risks, encourage innovation, and identify and implement the initiatives needed to drive change through an organization. Leadership is also tasked with obtaining the right tools for strategic decision making, such as emissions assurance and investor-grade reporting.

Board members and executive-level personnel champion the organization's climate change strategy. Tasked with balancing long-term value creation with short-term costs, board members and executives have the roles of considering the economic consequences of climate change and helping position the business for sustainable long-term growth. A full 100% of leading CDP S&P 500 companies have board or executive-level oversight for climate change strategy.

Senior executives and board members have the opportunity to assume broader leadership roles by providing input and helping shape external regulations, standards, and policy. The International Integrated Reporting Council (IIRC) and the Sustainability Accounting Standards Board (SASB) actively invite members of the business community to participate in drafting standards and to join industry working groups. In the US, the administration's 2013 Climate Action Plan calls for the EPA to work closely with industry, among other groups, to establish carbon pollution standards.

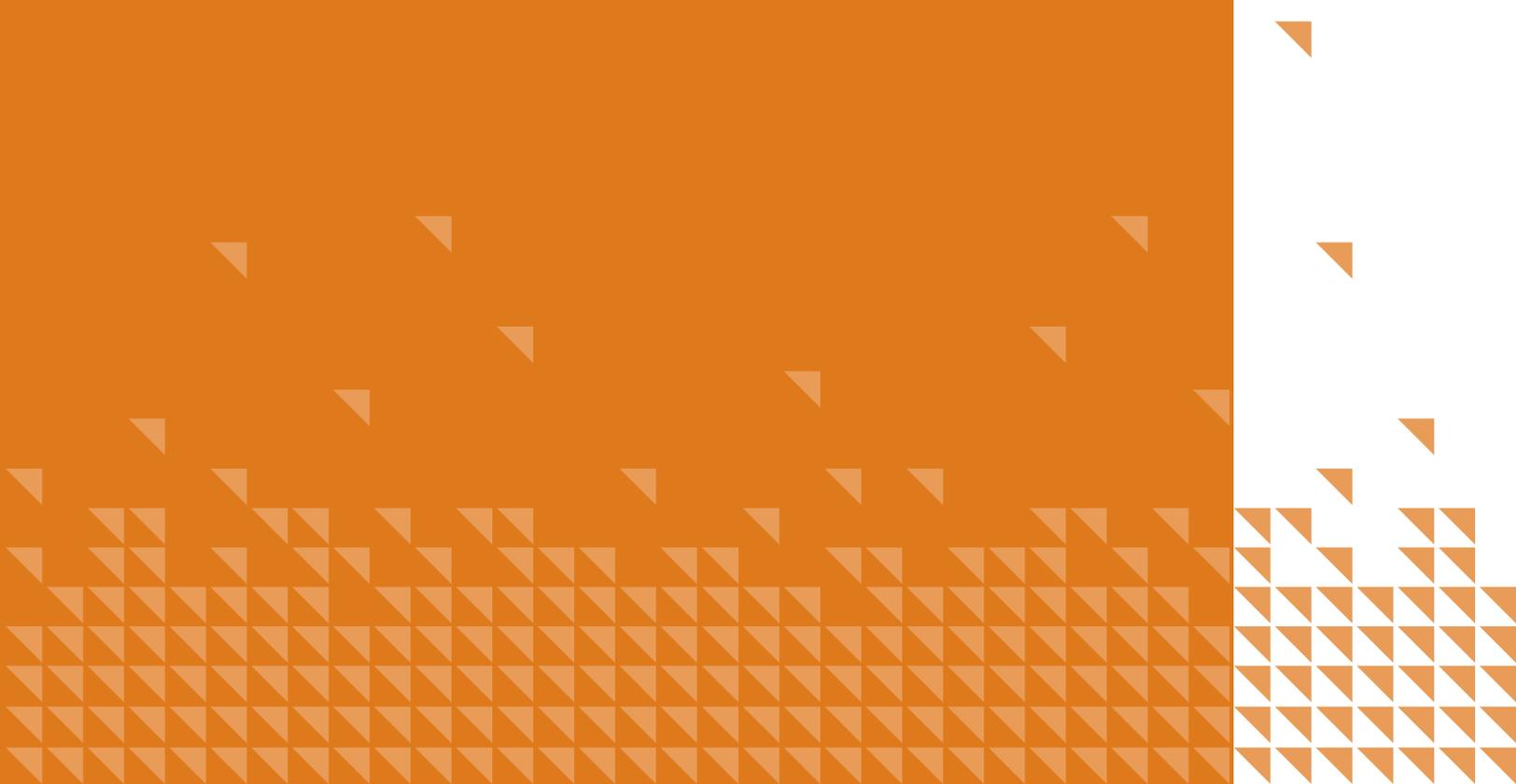
With more than 92% of CDP leading companies engaging directly on climate change policy and a large contingent already realizing opportunities from climate change investments, these companies serve as models of successful business transformation. More important, they are contributing to the foundation for the well-being and prosperity of future generations in a climate-changed world.

### **Doug Kangos**

Partner  
Sustainable Business Solutions, PwC

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**Next-generation  
leadership:**  
Addressing global  
climate change through  
multidimensional  
engagement

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**During the past decade of CDP reporting, leading companies have recognized climate change as an integral strategic business variable. Many are now expanding the boundaries of their spheres of climate change influence by engaging workforces, suppliers, consumers, governments, and communities. They are mining data at all points of influence in their value chains. In doing so, they not only enable innovative solutions for further reductions, but also leverage the opportunity to strengthen relationships with stakeholders, streamline processes, reduce costs, and redefine strategic advantage.**

This year's CDP questionnaire was refined to gather greater detail in three areas: value chain, Scope 3, and policy engagement. Even though the concept of multidimensional engagement is not new, the data is, and it provides powerful means to map broader influence, consistent with the president's leadership objective. S&P companies' responses are instructive as to what engagement looks like in each sector, who is leading, and who has yet to take first steps. This year's results set the stage for future-year progress and analysis that will define the next generation of leadership.

#### Engaging with the value chain

The 2013 responses point to exposure and opportunity throughout entire value chains and across geographic boundaries. Companies in industries as different as telecommunications and agriculture understand that such engagement is required for effective climate change management from a risk, opportunity, and emissions standpoint: 86% of leading companies (69% of all respondents) report engagement with some element of their value chain. A more detailed view of what that engagement looks like—and which companies are engaging more broadly and deeply—is provided in the sector snapshots.

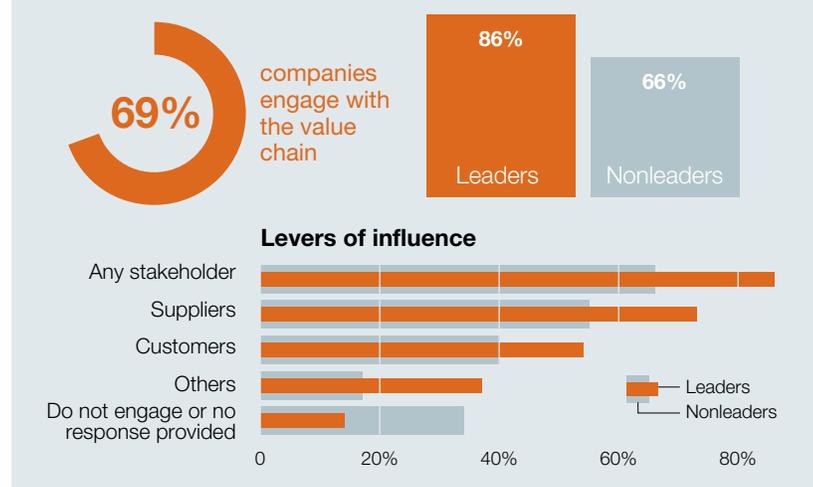
**Elements of the value chain:** *Value chain* refers to activities, from inception through to market, in which actual value is added to the product. Although often used interchangeably, the value chain is not limited to the supply chain (upstream) but extends all the way (downstream) to product use by the customer—who, as evidenced by this year's responses, is involved not just at the end of the value chain but throughout the process. (See Figures 9 and 14.)

**Supply chain—lever of influence:** Suppliers remain the most important levers of value chain influence for the majority of sectors, with more than 73% of leading companies reporting engagement (58% of all respondents): 47 S&P respondents report that they engage with suppliers representing greater than 50% of their total spend; 14 of those 47 are in the Information Technology sector, followed by Consumer Discretionary with 8 companies and Consumer Staples with 7. Of those that disclose use of the data collected to inform decision making, a third of respondents use supplier scorecards to drive suppliers' activities and a quarter identify GHG sources for reduction purposes.

**Customers—drivers of opportunity:** The risk and opportunity dashboard (Figure 7) shows the most commonly-disclosed high-impact opportunity related to climate change to be customer driven. This is especially so for sectors with customer-centric strategies to manage climate change: for instance, 65% of Materials respondents disclose engagement with the customer on GHG emissions and climate change strategies, followed by Industrials (61%), Telecommunications Services (60%), Consumer Staples (57%), and Utilities (55%).

**Suppliers and customers as strategic assets:** Responses indicate that a number of companies are making inroads into measurement and scaled management of emissions beyond the corporate fence and recognize both supply chains and customers as strategic assets. Prologis offers an example of aligning changing consumer behavior with strategic interests. The commercial property company built an innovative, energy-efficient distribution center for one of its clients. The client "not only supported these efforts, it worked with Prologis to include targets related to the building's embodied carbon [...] in the development contract" and then "contracted with Prologis to develop two new sustainable distribution centers."

**Figure 9.** Value chain engagement on emissions and climate change



## Measuring and managing Scope 3 emissions

### Finding value in Scope 3

Emissions associated with the value chain are commonly referred to as Scope 3. Measurement (which 74%, or 246 companies, have begun) is a necessary first step toward defining a management strategy. Developing corporate value chain and product GHG inventories delivers value by helping companies:

- Identify and understand risks and opportunities associated with the value chain;
- Identify GHG reduction opportunities, set reduction targets, and track performance;
- Engage suppliers and other value chain partners in GHG management and sustainability; and
- Enhance stakeholder information and corporate reputation through public reporting.<sup>1</sup>

The way in which emissions beyond corporate boundaries are managed—and the reason for doing so—depends on whether a company’s measurable emissions occur upstream or downstream. Either way, their management can be a risk or cost play, a revenue play, or a combination of both. For example, on one hand high emissions in the supply chain upstream can be considered a risk as the dependency on fossil fuel could impact product and material availability and price volatility. On the other hand, downstream, companies create products and solutions to help reduce emissions at the use point and monetize doing so.

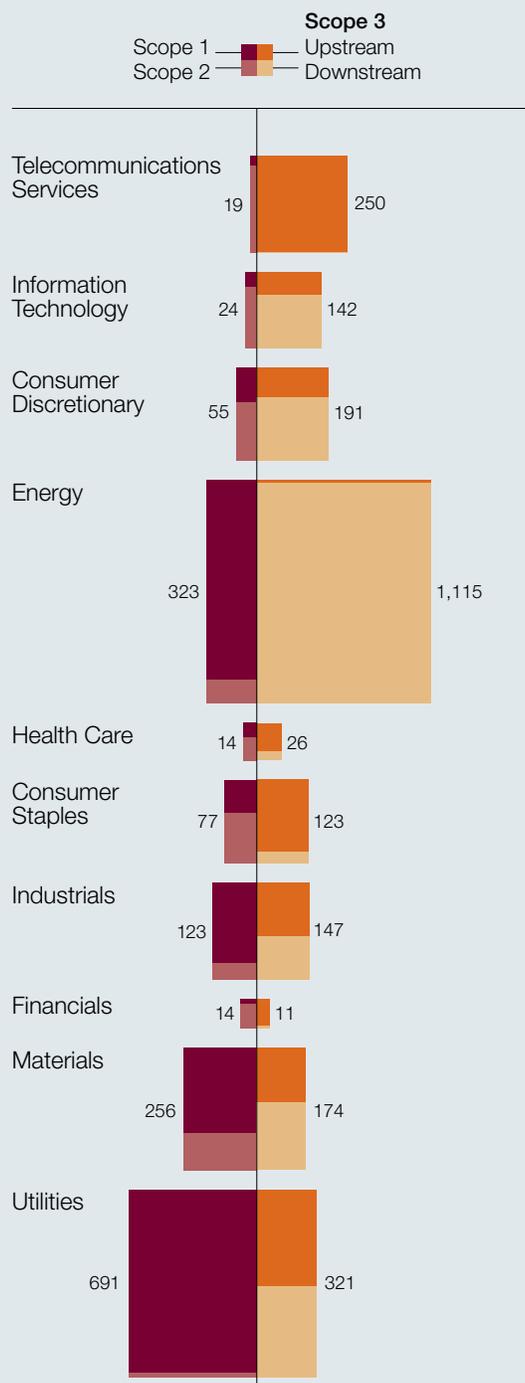
### Corporate footprints in context

For some sectors—such as Telecommunications Services, Information Technology, Consumer Discretionary, and Energy—Scope 3 emissions are on an order of magnitude larger than Scopes 1 and 2, and looking at the latter without consideration of the former renders an incomplete picture of a company’s footprint. Figure 10 provides a basis for seeing which sectors have the greatest impact and opportunity to manage, both upstream and downstream. The split between upstream and downstream points to where companies should focus on product or supply chain in effecting the most positive result. Each requires unique stakeholder and reduction strategies.

### This is a baseline

The representation of disclosed respondent emissions comes with a disclaimer. A majority of S&P 500 companies report Scope 1 and Scope 2 emissions, and a growing degree of confidence exists for the completeness and accuracy of the direct and indirect emissions picture. Companies have had the support of a GHG reporting framework, albeit evolving, since 2004 and nearly a decade to fill data gaps and improve quality. However, the Greenhouse Gas Protocol Scope 3 Accounting and Reporting Standard was released only in October 2011, making the 2013 CDP report the first full year in which companies could use the new guidance and carbon accounting standards.

**Figure 10.** Reported value chain emissions relative to direct and indirect emissions, in Mt CO<sub>2</sub>e



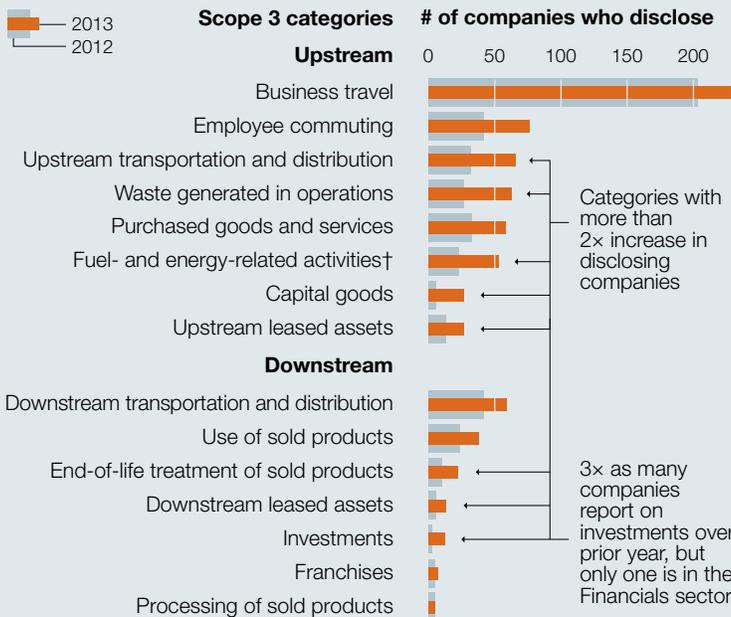
**Note:** Area of the box is representative of the size of emissions and provides perspective on disclosed Scope 3 emissions as an order of magnitude compared to Scopes 1 and 2. The above rendering is only illustrative; emission profiles differ per company even for those within the same sector or industry.

1. "Corporate Value Chain (Scope 3) Standard—FAQ," Greenhouse Gas Protocol, Oct. 2011. Available at: [www.ghg-protocol.org/standards/scope-3-standard](http://www.ghg-protocol.org/standards/scope-3-standard).

**Figure 11.** Increased disclosure across all Scope 3 categories in 2013

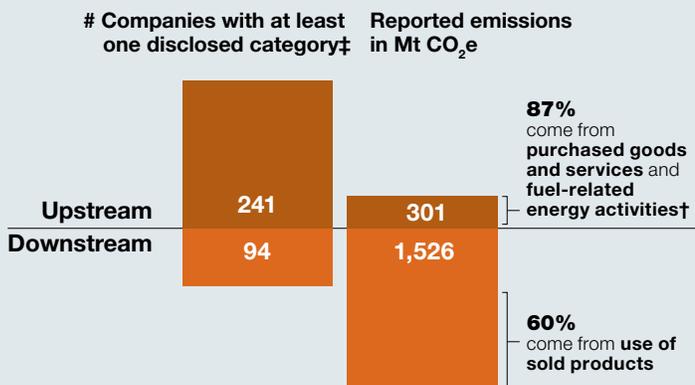
# Companies reporting Scope 3\* **235** in 2012 **246** in 2013

Marginal increase in the number of companies, but marked increase in the number of categories reported by respondents:



**Upstream disclosure, downstream emissions**

Companies are capturing upstream impact, but downstream accounts for the majority of reported Scope 3 emissions.



\* 24 companies that did not disclose Scope 3 emissions in 2012 reported emissions in at least one category in 2013. An additional 8 new respondents to CDP in 2013 also reported Scope 3 emissions in at least one category.

† Not included in Scopes 1 and 2.

‡ Includes companies that disclose categories in each group, upstream and downstream.

**Scope 3 reporting progress**

It follows that this year marks a significant turn in companies' expanded capture of value chain emissions. Disclosure of emissions—in terms of number of companies calculating and emissions accounted for—increased across almost all 15 categories from 2012. Figure 11 tells the story. What has emerged is a marginal increase in the number of companies disclosing any Scope 3 category. Companies reporting Scope 3 emissions in prior years are now advancing beyond business travel to a more developed footprint and understanding of exposures and opportunities. However, the results also indicate just how incomplete the reporting picture is.

**Premium placed on relevance**

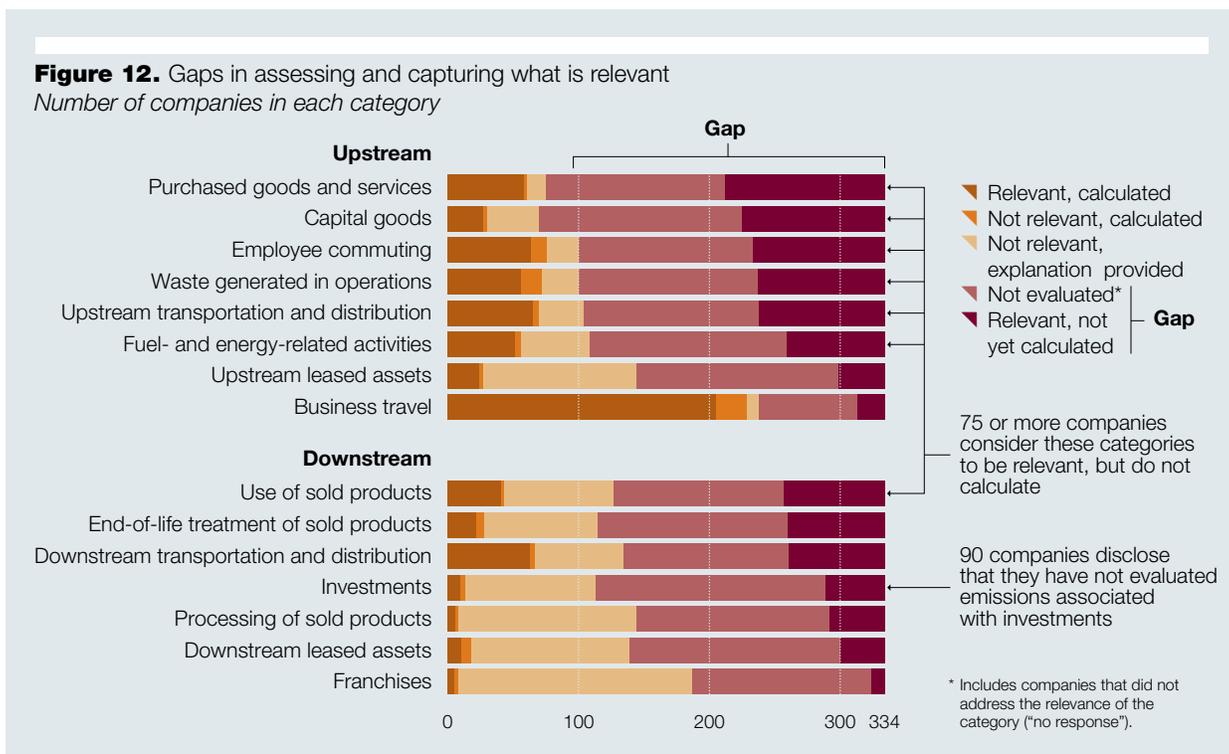
Importantly, the 2013 CDP questionnaire prioritized quality over quantity, requiring companies to designate each category as relevant or not and to indicate progress made in tracking associated emissions. This is paralleled by the heightened focus on the relevance of accounting standards initiatives, such as the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC), and the Sustainability Accounting Standards Board (SASB).

Figure 12 highlights persistent gaps in terms of both what is deemed relevant but not calculated and what has yet to be evaluated. For example, only 12 companies calculate investments—only one of which is a financial institution—leaving 135 that either designate the category as “relevant, not calculated” or “not evaluated.”

Looking at a sector's emissions portfolio alongside categories deemed relevant to the sector reveals progress—or lack thereof—in footprint mapping for particularly relevant links in the chain. Refer to sector snapshots for this analysis, as well as company-level recognition. Note, however, that looking at emissions on a sector basis is only illustrative; emission profiles differ per company even for ones within the same industry.

Key gaps at a sector level are summarized below and should be read as follows: % of respondents in sector that publicly disclose the category as relevant versus % of respondents that disclose the category as relevant and calculate the associated emissions.

- Consumer Discretionary: purchased goods and services (60%; 10%) and upstream transportation and distribution (60%; 20%)
- Consumer Staples: purchased goods and services (62%; 22%)
- Industrials: purchased goods and services (51%; 9%)
- Materials: purchased goods and services and upstream transportation and distribution (65% and 57%; 35% for each)
- Telecommunications Services: capital goods, purchased goods and services, upstream transportation and distribution, employee commuting (80%; 20%), and waste generated in operations (80%; 40%)



### Commitments outside corporate boundaries

About 18% of S&P 500 respondents set targets to reduce some portion of Scope 3 emissions. A majority of the targets pertain to business travel, with the remaining tied to use of sold products (e.g., Spectra Energy Corp, Boeing Company), purchased goods and services (e.g., Johnson Controls, Praxair, Inc.), waste (e.g., Jacobs Engineering Group, PG&E Corporation), upstream and/or downstream transportation and distribution (e.g., General Mills Inc., The Home Depot Inc., Consolidated Edison, Inc.), and franchises (e.g., Starwood Hotels & Resorts Worldwide Inc.). To cite one example, Alcoa Inc. has committed to reducing the energy intensity of its "downstream fabrication manufacturing operations by 25% by 2020 as part of the US Department of Energy's Better Buildings, Better Plants Challenge." Companies, particularly in sectors whose climate change value proposition is highly customer-centric, are setting market-facing goals for customers or even customers' customers. In 2006, E.I. du Pont de Nemours and Company began reporting a number of market-facing goals (e.g., to reach \$2 billion in annual revenue from products that help customers reduce GHG emissions).

### Upstream disclosure, downstream emissions

A quarter of S&P 500 respondents reduce measured value chain emissions in some way. Aside from business travel emissions—the most easily and commonly calculated category—the balance of reductions are reported to be in downstream transportation and distribution and in waste generated in operations. Figure 11 shows that

even though twice as many companies are disclosing upstream emissions, four times the amount of associated emissions are downstream—and, in particular, attributable (60%) to the use of sold products. This suggests exponential potential for the private sector in developing, investing in, and bringing to market products and services that reduce emissions resulting from product use.

### Leading at a product level

More than 80% of companies in six sectors (Utilities, Industrials, Energy, Materials, Information Technology, and Telecommunications Services) report that the use of their goods and services directly enables third-party GHG avoidance. The growing prevalence and importance of product-level thinking and life-cycle assessments in this year's responses are hard to dismiss. This indicates operations-wide scrutiny at companies as different as Dell Inc. and Johnson Controls. Ford Motor Company works backward from its climate goals to product development, with the aim that "each new or significantly refreshed vehicle will be best in class, or among the best in class, for fuel economy. From our global portfolio of products, we will reduce GHG emissions consistent with doing our part for climate stabilization—even taking into account sales growth." Snack company Mondelez International Inc. uses "lifecycle thinking to help uncover ways to eliminate waste in manufacturing, measure how product and packaging innovations improve on previous designs, and provide a common system to measure and explain those benefits."

## Engaging on policy

### Direct engagement

Results from the increased level of detail in the 2013 questionnaire point to an engaged business community. Direct engagement with policy makers is matched by participation in industry groups and trade associations; partnerships with research groups, academic institutes, and not-for-profits; and involvement with the communities where companies do business. The following presents the highlights of corporate climate change engagement from this year's disclosure.

About 80% of S&P respondents are engaged on climate-related policy, with the majority disclosing a neutral position and 45% indicating support for some type of climate change legislation or policy. Sherwin-Williams Company states: "The absence of federal regulatory guidance, unification and primacy of GHG regulations has created a growing macramé of local and state regulations, thus creating risk and uncertainty." And PepsiCo, Inc. "expects to enjoy a moderate level of strategic advantage from regulatory change if that regulatory change favors companies that have already undertaken initiatives to reduce carbon emissions and create potential reduction credits."

Of the companies that indicate support for legislation, engagement is focused on energy efficiency and clean energy generation. Google Inc. encourages "the development and deployment of more renewable energy through policy advocacy" as part of its long-term strategy. KeyCorp notes that "regulatory uncertainty and policy changes in big markets, including the US" weighed down "new investment in clean energy" in 2012. The financial

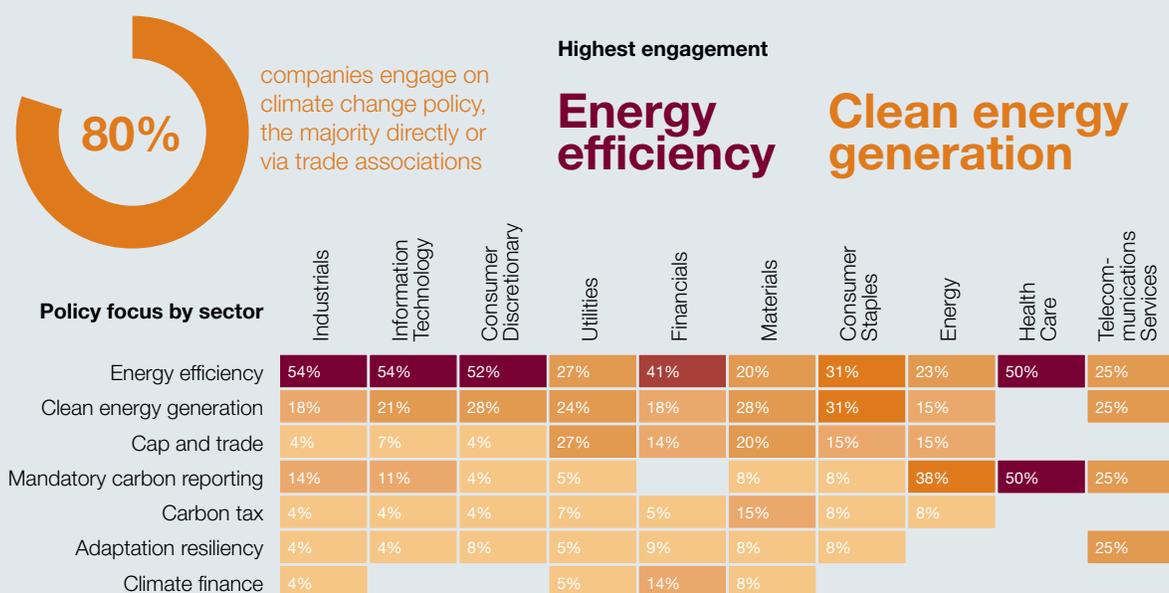
services firm reports that "regulatory incentives, including tax preferences or rebates," may allow the company to expand its "renewable energy platform, which offers strategic advisory, capital raising, and project finance solutions to Key clients." Figure 13 presents the focus of policy engagement by sector.

Publicly disclosed support for cap and trade is coming largely from two high-emitting sectors: Utilities (11 of 22 companies) and Materials (8 of 22). Sempra Energy is active "in the development of laws and regulations as allowed by law" and advocates for "flexible compliance." The San Diego-based company is already engaged in "activities connected to the implementation of California's Global Warming Solutions Act."

### Indirect engagement

About 66% of respondents engage on climate policy through trade associations. Advanced Micro Devices Inc. routinely "monitors and assesses climate change legislation and regulations through participation in various industry trade associations, [and] NGOs." Wyndham Worldwide Corporation has supported the Cornell Center for Hospitality Research on sustainability and carbon metrics. Real estate investment trust Host Hotels & Resorts, Inc. engages on "climate change regulations and related incentives and programs in collaboration with the REIT and tourism industries" through membership in various industry associations. Alcoa Inc. reports active communications with "local communities, governments, NGOs, and customers related to energy consumption and GHG emissions of our facilities and products."

**Figure 13.** Policy engagement



Sectors may not sum to 100% due to rounding.

## Orchestrating innovation and partnership

### Coordination of parties

Leading companies across sectors are measuring and managing footprints at multiple levels—from enterprise to product. They are catalyzing platforms for multiparty, multicompany innovation, driving innovation in R&D, bridging private and public in consideration of resiliency, and building industry-wide and cross-sector infrastructure for greater collective action. For these companies, customers, suppliers, and local, national, and international governments are embraced as trusted partners and are invited to codevelop strategies, products, and services to scale emissions reductions.

Acknowledging that “large-scale, systemic improvements in agriculture’s environmental impacts will only be possible if all stakeholders in the food production system work together to seek solutions,” Kellogg Company participates in “collaborative efforts to promote sustainable practices in agriculture.”

Boeing Company’s innovative blended winglets system, an advanced wing technology used on a range of

airplanes, accounts for worldwide reduction of over 3 billion gallons of jet fuel—a savings of nearly 30 Mt of CO<sub>2</sub>e to date. Coca-Cola Enterprises, Inc., cites \$26 million in 2012 dedicated to investments and joint ventures across the value chain, from packaging and manufacturing to distribution and cold-drinks equipment. The company looks to joint ventures to expand the production of food-grade recycled PET for its own use and, in one specific example, to “increase the availability of recycled plastic in France.” In 2012, Entergy Corporation cosponsored a leadership forum at which “participants identified best practices in preparedness, outlined cost-benefits for mitigation and discussed the role the business community, energy industry, national and state policy makers can play in safeguarding people from natural disasters” that impact the Gulf Coast.

Such an open approach to innovation represents a change in how business is done and strategic advantage established. Additional examples of companies acting on links across the value chain can be found below in Figure 14.

**Figure 14.** Engagement across the value chain

### Scope 3 upstream

**Raw material production**

**Starbucks Corporation**  
“Starbucks and Conservation International have worked together to begin identifying and addressing the impacts of climate change and associated environmental risks on coffee production, and to effectively communicate this work to key stakeholders. Together we have built a leadership model for sustainable, resilient coffee production in the face of climate change. We have done this by improving our understanding of climate change impacts on production, assessing the impact of procurement standards, incentivizing sustainable production and natural resource management, implementing demonstration activities in key sourcing regions, and influencing policies.”

**Raw material distribution**

**Johnson Controls**  
“We continue working with our suppliers, engaging them to implement sustainability initiatives and decrease the supply chain footprint. We joined the US EPA SmartWay program and encourage our suppliers to do the same, making our transportation more efficient and a rating system in place to measure progress.”

### Scope 1: Owned/controlled operations

### Scope 2: Purchased electricity

**Product manufacturing**

**Coca-Cola Company**  
“PlantBottle™ is a good example of our evolving long-term strategy—representing our intention to move toward renewable feedstocks. By the end of 2012, PlantBottle™ packaging was available in 24 markets, and nearly 13.7 billion PlantBottle™ packages had been shipped. To date, use of PlantBottle™ packaging has helped save the equivalent emissions of approximately 110,000 metric tons of carbon dioxide.”

### Expanding influence on a global stage

Although the S&P 500 are US firms, they have global footprints and thus great potential to act as multipliers in climate innovation. A number of companies acknowledge this in their responses. "With the company's supply chain GHG being many times larger than the company's direct emissions," Wal-Mart Stores, Inc., seeks to "leverage our size and scale to positively impact the world." The retailer reports to have eliminated more than 2.3 Mt of GHG emissions to date through its supply chain and products, and it projects future reductions of 7.5 Mt by 2015 and more than 16.5 Mt by 2020.

PepsiCo, Inc. is piloting a sustainable farming initiative in 14 countries. Xylem Inc. is "creating water solutions for customers at the base of the economic pyramid" and has conducted "field tests of early prototypes in India, Africa, Latin America and Pan-Asia." VF Corporation is "focusing resources in certain regions where we have a high concentration of suppliers and where there are critical energy reduction needs. In China VF is participating in an energy efficiency program with 24 supplier facilities, mainly energy-intensive fabric mills."

### Conclusion

The journey of leading S&P 500 companies in establishing climate-change-related internal protocols, investing in emissions reductions, and transforming their businesses with embedded resiliency positions them to exert new influence on an expanding range of stakeholders. The president's 2013 Climate Action Plan speaks directly to this journey by aligning policy with what business is already doing and lending a realistic perspective to the scale and scope of action required.

Leading companies are innovating to create value on many levels while demonstrating increasing sophistication and confidence in addressing the risks and opportunities associated with climate change. Although the distance left to travel in addressing climate change remains a challenge, S&P 500 leaders are making progress by investing for the long term and aligning climate change strategy with strategic advantage, thereby offering other companies clear examples of how to strengthen their engagement. The S&P 500 is poised to build on these investments, capitalize on newly minted markets, and contribute American ingenuity and leadership in meeting the global challenge of climate change. ▽

#### Reporting company's operations

##### Product distribution

#### **PepsiCo, Inc.**

"The Frito-Lay North American (FLNA) business had more than 195 electric trucks fully deployed on routes in 2012 [and] we have seen almost \$2 million in savings over the two years the vehicles have been operating. Since their introduction in 2010, Frito-Lay's electric vehicles have travelled nearly three million miles, reducing carbon emissions by 5000 metric tonnes. In addition, since our initial pilot in 2011 for CNG, we rolled out an additional 83 CNG trucks across our FLNA operations in 2012, and have placed an order for 125 more new CNG engines in 2013 to replace older, inefficient diesel fuel engines."

#### Scope 3 downstream

##### Retailing and consumption

#### **Whirlpool Corporation**

"Our greenhouse gas emissions target focuses not only on reducing the emissions from our operations, but also on the emissions created by an appliance during its in-home use, which is generally 15 to 20 times higher than during its production, distribution or disposal life cycle phases. Some of the company's most successful and highly sought-after products also are the most environmentally friendly. In large part, this is because Whirlpool offers consumers more than resource efficiency. We apply the power of innovation with our commitment to the environment to create the kinds of products consumers want at price points they value."

##### Disposal source recycling

#### **Best Buy Co., Inc.**

"We have established two public sustainability goals to reduce absolute emissions by 20 percent by 2020 in North America and to collect 1 billion pounds of consumer electronics and appliances for recycling. These goals are outcomes of our customer, employee and stakeholder input, who consistently tell us they want and expect us to do so, and that this is a factor for them in choosing where to shop, work and invest."

# Sector overview

Previous sections of this report present the overall S&P 500 corporate climate change disclosure and performance trends. The following pages highlight the unique perspectives and positionings of the 10 major Global Industry Classification Standard (GICS) sectors.

Each sector snapshot spotlights who's leading on performance and disclosure and how those leaders are creating value and strategic advantage in doing so. A deeper analysis of S&P 500 sector-specific responses follows, organized by the three major themes of the report:

**1**

**Value creation:**

Investing to cut carbon emissions

**2**

**Business transformation:**

Preparing for the impacts of climate change

**3**

**Next-generation leadership:**

Addressing global climate change through multidimensional engagement

## Leadership: A sector perspective

### S&P 500 by the numbers

**The distribution of respondents across sectors in 2013 remains consistent with 2012. However, because sectors are not equally represented within the S&P 500, it is not surprising that more-heavily-weighted industries represent a higher percentage of total respondents and are more likely to have a greater presence in the GDP leadership indexes.**

For example, Financials and Information Technology, the two most-prominently-represented in the pool of S&P 500 respondents, account for 55 and 56 responding companies, respectively. Combined, they account for nearly one-third of all responding companies and 43% of the positions in the leadership indexes (27 of 64 CDLI and/or CPLI leaders). The figure below presents a sector-by-sector grouping of how many companies responded, how many are leading, and the percentage of totals.

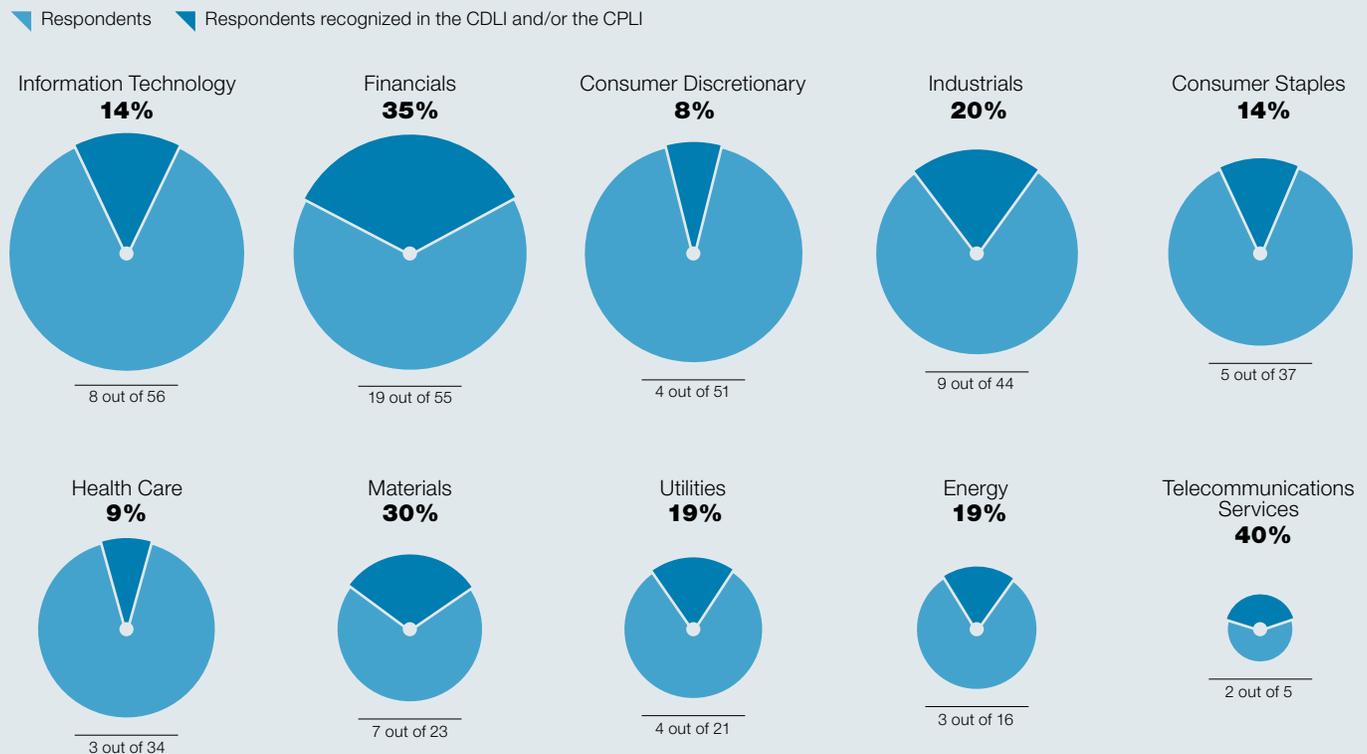
#### Highlights

- In 2013, all 10 GICS sectors are represented in the CDLI (53 companies total). The only sector not represented in the CPLI is Health Care.
- The sectors with the highest percentages of respondents named leaders are Telecommunications Services

Services and Financials, with 40% and 35%, respectively. They are followed by Materials (30%) and Industrials (20%).

- The number of Utilities leaders dropped in 2013 from 2012. This year, 4 companies out of 21 respondents (19%) are named leaders, compared with 9 companies out of 21 (43%) in 2012.
- Telecommunications Services maintained its leadership positioning with 40% entry of respondents into one or both of the indexes in each year; Financials increased its leadership positioning to 35% from 27% of respondents.

**Figure 15.** Respondent and leadership composition across sectors  
Percentage of total sector respondents recognized in one or both leadership indexes



# Consumer Discretionary

Response rate

**59%** (51 of 86)

## Key industries within sector

▼ Respondents ▽ Nonrespondents



### New respondents

Delphi Automotive Plc.  
Gannett Co., Inc.  
Harman International Industries Inc.  
J.C. Penney Company, Inc.

### Largest nonrespondents<sup>1</sup>

Amazon.com, Inc.  
Comcast Corporation  
Priceline.com Inc.  
Time Warner Cable Inc.  
Discovery Communications, Inc.

## Meet the leaders

### Companies listed on both CPLI and CDLI

Best Buy Co., Inc. **98 A**

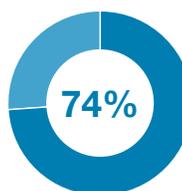
### Companies listed on CDLI

The Home Depot, Inc. **99 A-**

TJX Companies, Inc. **98 B**

News Corporation **97 A-**

## Strategic advantage



**claim strategic advantage from integrating climate change into their strategy**

### “Setting goals helps drive energy cost savings

initiatives that are important to maintaining our competitive advantage of offering our customers great fashions and brands at well below department and specialty store regular prices.[...] Finally, for any business to be successful and competitive, it has to attract talent. TJX believes that pursuing environmentally sound business practices and sharing information about them will help us attract and retain talent that value these business qualities.”

**—TJX Companies, Inc.**

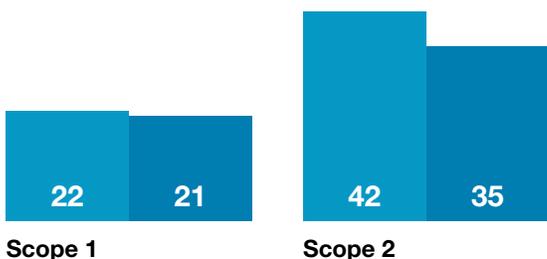
### “Our 2012 focus on product stewardship was

intended to drive growth, brand value and customer loyalty by leading the consumer electronics industry as product stewards across the value chain, from product design to end-of-life solutions and services. We believe there is strategic advantage in creating and providing customer value propositions that help customers live more sustainable lives, which drives growth and profitability for our company.”

**—Best Buy Co., Inc.**

## Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

▼ 2012 ▽ 2013



<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

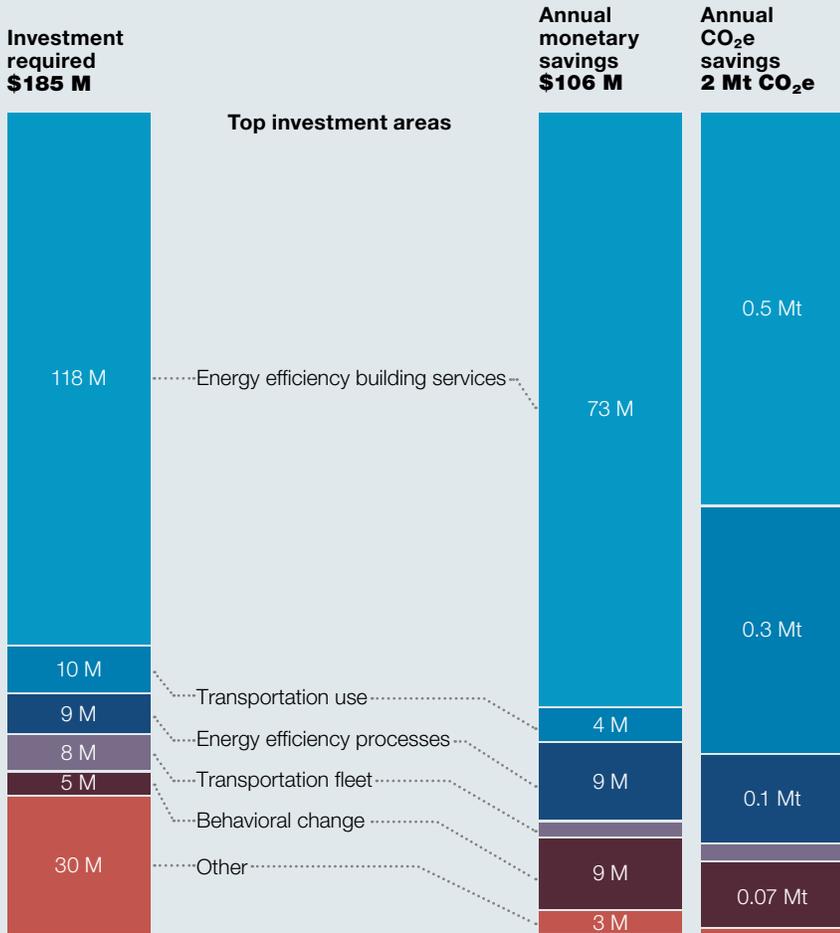
<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

# Consumer Discretionary Investments

Investing to cut carbon emissions

## Driving emissions reductions

2013 investments made and savings unlocked



**Note:** "Other" includes implementation of PC management software and waste disposal programs. Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 0.5%

of Consumer Discretionary sector respondents' capex is invested in emissions reduction efforts. Almost two-thirds of the invested dollars were to improve the energy efficiency in building services.

### Investments with high monetary and GHG savings

#### J.C. Penney Company, Inc.:

Replacement of incandescent lamps for accent ("spot") lights with LED lamps: 50W incandescent lamps were replaced with 15W LED lamps, with a total of 248,667 LED lamps installed across 781 stores.

**Investment reported:** \$7.8 million  
**Annual monetary savings:** \$4.2 million  
**Annual GHG reductions:** 21,473 tCO<sub>2</sub>e

#### Starwood Hotels & Resorts Worldwide, Inc.:

Diverse projects resulting from energy audits (conducted at all Starwood hotels), including lighting, HVAC, and retrocommissioning.

**Investment reported:** \$5.3 million  
**Annual monetary savings:** \$2.9 million  
**Annual GHG reductions:** 103,643 tCO<sub>2</sub>e

#### Wyndham Worldwide Corporation:

Many activities focused on low- to no-cost measures and behavioral changes based on sustainability education. This includes the Wyndham Vacation Ownership Green Certification Program, an internal certification with strict adherence to quality assurance around sustainability initiatives, including energy and water reduction.

**Investment reported:** \$15,000  
**Annual monetary savings:** \$1.5 million  
**Annual GHG reductions:** 10,000 tCO<sub>2</sub>e

### The payback

**262** total initiatives implemented this year, with the greatest number of projects falling within the 1- to 3-year payback horizon

|               | # Projects | Investment required |
|---------------|------------|---------------------|
| <1 year       | 48         | \$7 M               |
| 1–3 years     | 74         | \$117 M             |
| 4–10 years    | 28         | \$56 M              |
| 11–15 years   | 1          | \$0.02 M            |
| 16–20 years   | 2          | \$0.8 M             |
| >25 years     | 1          | \$0.4 M             |
| Not disclosed | 108        | \$4 M               |

# Consumer Discretionary

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

**Top 3 risks and opportunities across all categories:**\* ▾ Regulatory ▾ Physical ▾ Other

**Risks**

- Cap-and-trade schemes
- International agreements
- Fuel/energy taxes and regulations

**Opportunities**

- Reputation
- Changing consumer behavior
- Product labeling regulations and standards

**Starwood Hotels & Resorts Worldwide, Inc:** “The financial implications of emerging cap-and-trade schemes globally, resulting in an increase in utility rates and/or material costs for Starwood, can be quite substantial. If Starwood’s growth continues as is [...] even small incremental utility rate increases can lead to an increase in expenditures in the millions of dollars annually.”

**News Corporation:** “A valuation of new revenue generation through partnerships and content around environmental issues [...] suggests tens of millions of dollars in total benefit to the company as a result of its efforts.”

**DIRECTV:** “If customers were to change their behavior to respond to higher energy costs, we believe we are well-positioned to demonstrate to our customers and stakeholders that our products are already efficient and becoming even more efficient over time. In fact, DIRECTV recently set a goal to reduce the average annual household electricity use by a new 3-room whole-home HD-DVR customer’s receivers by 25% by 2013 when compared to a 2011 baseline.”

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

**Engaging with value chain**

**68%** of Consumer Discretionary respondents engage with the value chain on climate change management



**Companies that engage with suppliers representing >50% of spend:**

|                        |      |
|------------------------|------|
| CBS Corp.              | 100% |
| Hasbro, Inc.           | 85%  |
| Johnson Controls       | 80%  |
| Kohl’s Corporation     | 80%  |
| Starbucks Corporation  | 80%  |
| Delphi Automotive Plc. | 64%  |
| The Home Depot         | 60%  |

**Managing Scope 3:** Identifying what’s relevant and tracking emissions

| Top 5 most relevant categories              | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|---|--|---------------------------------|-----------------------------------|------------------|
|   |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Purchased goods and services             | 53,071,296                             | 30                              | 5                                 | 6                |
| 2. Upstream transportation and distribution | 5,297,486                              | 30                              | 10                                | 4                |
| 3. Business travel                          | 836,702                                | 35                              | 29                                | 1                |
| 4. Waste generated in operations            | 194,797                                | 27                              | 4                                 | 3                |
| 5. Employee commuting                       | 19,957                                 | 23                              | 2                                 | 4                |

**Companies calculating the highest percentage of relevant categories<sup>6</sup>**

|                      |        |
|----------------------|--------|
| News Corporation     | 6 : 6  |
| Carnival Corporation | 4 : 5  |
| Johnson Controls     | 8 : 12 |
| Best Buy Co., Inc.   | 3 : 5  |
| DIRECTV              | 5 : 14 |

3. Includes companies that did not respond to question.

4. Based on Question 14.1, “relevant, not calculated” and “relevant, calculated.”  
 5. Based on Question 14.1, “relevant, calculated.”  
 6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as “relevant, calculated,” “relevant, not calculated,” “not evaluated,” and no response.



“As consumers look to The Home Depot for product knowledge, we are well-positioned to educate them on products and services that can assist in lowering their GHG emissions. Our products include energy efficient windows and doors, high R-value insulation, caulking and sealants, smart home technology, LED lights, and many more. In 2012, The Home Depot sold over 125 million energy-saving products to our customers. These products were marketed to ease the understanding of the impact and use of the products. We marketed this message to over 23 million customers per week. These purchases saved over 6,223,319,161 kilowatt hours in 2012. The 6.2 billion kilowatt hour reduction created a 4,374,769 ton third-party decrease in greenhouse gas emissions in 2012.”

**The Home Depot, Inc.**



# Consumer Staples

Response rate

**88%** (37 of 42)

## Key industries within sector

▼ Respondents ▽ Nonrespondents



### New respondents

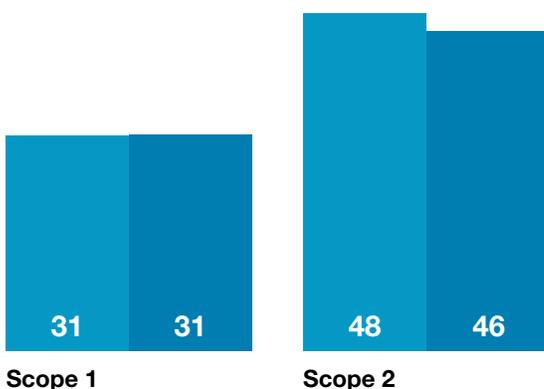
Mondelēz International Inc.  
Sysco Corporation

### Largest nonrespondents<sup>1</sup>

Archer Daniels Midland  
Lorillard, Inc.  
Beam Inc.  
Monster Beverage Corporation  
Tyson Foods, Inc.

## Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

2012 2013



## Meet the leaders

### Companies listed on both CPLI and CDLI

Estée Lauder Companies Inc. **96 A**

### Companies listed on CPLI

Brown-Forman Corporation **93 A**

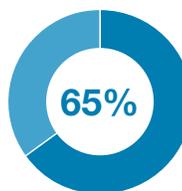
### Companies listed on CDLI

Colgate-Palmolive Company **99 B**

Molson Coors Brewing Company **97 A-**

Philip Morris International **97 B**

## Strategic advantage



**claim strategic advantage from integrating climate change into their strategy**

**“Molson Coors activities in sustainable procurement** and the resulting partnerships with our suppliers are solidifying a strategic advantage for the Company in sourcing the best quality agricultural raw materials. It is also helping to build resilience to supply shocks and find efficiencies in the supply chain.[...] The most substantial business decision made in 2012 was the adoption of ambitious 2020 GHG, energy and water intensity targets. Molson Coors believes these targets will drive savings that will make the business more sustainable, competitive and less exposed to climate-related risks.

**– Molson Coors Brewing Company**

**“We are developing strategies to integrate renewable** energy, recyclable materials, and green chemistry into our business to address the risks and opportunities associated with climate change. We understand that renewable energy is an important component of satisfying the energy requirements of a growing global economy without depleting the natural resources upon which we depend.”

**– Estée Lauder Companies Inc.**

<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

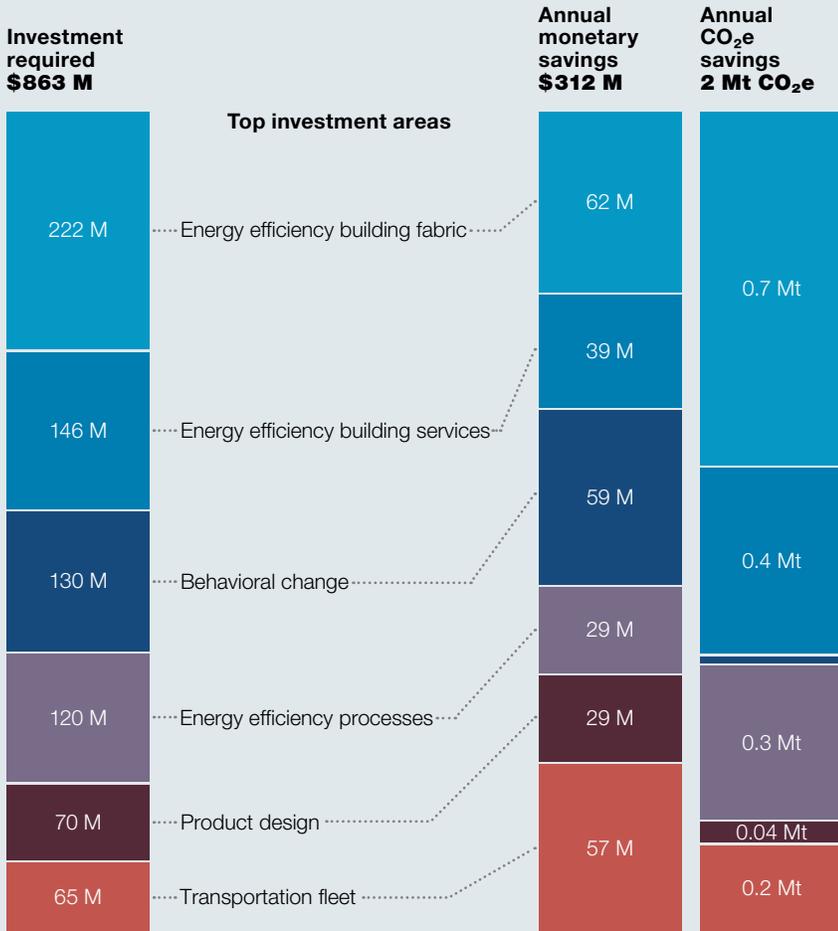
<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

# Consumer Staples Investments

## Investing to cut carbon emissions

### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 2%

of Consumer Staples sector respondents' capex is invested in emissions reduction efforts. Energy efficiency projects in buildings and in processes make up over half of the dollars invested.

### Investments with high monetary and GHG savings

**CVS Caremark Corporation:** Energy efficiency initiative across 1,128 stores, including energy efficiency lighting for retail floor, pharmacy and back rooms; switching from a 4 lamp to a 2 lamp using a reflector kit; and updating T8s in freezer with LEDs.

**Investment reported:** \$17.8 million  
**Annual monetary savings:** \$6.3 million  
**Annual GHG reductions:** 30,000 tCO<sub>2</sub>e

**Kroger:** Store delamping initiative, eliminating inefficient lighting and adjusting/adding light fixtures to fill in ambient light levels.

**Investment reported:** \$7.4 million  
**Annual monetary savings:** \$6.1 million  
**Annual GHG reductions:** 45,236 tCO<sub>2</sub>e

**Wal-Mart Stores, Inc.:** Energy efficiency initiatives including sales floor LEDs, High Efficiency (HE) refrigeration units, HE HVAC, doors on refrigerated cases, parking lot LEDs, energy management systems, voltage optimization, LEDs in cases, Retro-commissioning and HE air handling units, among others.

**Investment reported:** \$150 million  
**Annual monetary savings:** \$37.5 million  
**Annual GHG reductions:** 480,000 tCO<sub>2</sub>e

### The payback

**302** total initiatives implemented this year, with the greatest number of projects falling within the 1- to 3-year payback horizon

|               | # Projects | Investment required |
|---------------|------------|---------------------|
| <1 year       | 68         | \$24 M              |
| 1-3 years     | 98         | \$589 M             |
| 4-10 years    | 77         | \$240 M             |
| 11-15 years   | 6          | \$2M                |
| 16-20 years   | 4          | \$0.7 M             |
| >25 years     | 3          | \$3 M               |
| Not disclosed | 46         | \$4 M               |

# Consumer Staples

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

#### Top 3 risks and opportunities across all categories:<sup>\*</sup> Regulatory Physical Other

##### Risks

- Cap-and-trade schemes
- Induced changes in natural resources
- Change in precipitation extremes and droughts

##### Opportunities

- Induced changes in natural resources
- Reputation
- Changing consumer behavior

**Brown-Forman Corporation:** “To prepare for the possibility of disruption in the supply chain, particularly around raw materials, as well as in our production operations, we use agile inventory management and operational plans.”

**PepsiCo, Inc.:** “Significant changes in natural resources could result in increased regulatory risk, reduced availability of water and reduced crop yield or availability of cultivated lands for business purposes, giving PepsiCo a strategic advantage.[...] PepsiCo believes that its proactive sustainable agriculture policies position our company and our supplying farmers to be able to compete favorably in a resource constrained future.”

**Campbell Soup Company:** “Campbell’s customer and consumer insights group is able to monitor our consumer’s perceptions with respect to environment and climate. We are also able to measure changes in buying behavior and communicate that information to our customers.[...] Being able to monitor, tap into, and take advantage of the changing consumer behavior towards more and more responsible products and packaging could be significant.”

<sup>\*</sup> Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

#### Engaging with value chain

**86%** of Consumer Staples respondents engage with the value chain on climate change management



#### Companies that engage with suppliers representing >50% of spend:

|                              |      |
|------------------------------|------|
| Molson Coors Brewing Company | 100% |
| General Mills Inc.           | 90%  |
| The Coca-Cola Company        | 80%  |
| Clorox Company               | 70%  |
| Coca-Cola Enterprises, Inc.  | 67%  |
| Constellation Brands, Inc.   | 60%  |

#### Managing Scope 3: Identifying what’s relevant and tracking emissions

| Top 5 most relevant categories                | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|---|--|---------------------------------|-----------------------------------|------------------|
|   |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Purchased goods and services               | 75,799,002                             | 23                              | 8                                 | 6                |
| 2. Downstream transportation and distribution | 8,278,772                              | 24                              | 15                                | 6                |
| 3. Upstream transportation and distribution   | 4,561,156                              | 22                              | 10                                | 7                |
| 4. Waste generated in operations              | 1,930,693                              | 19                              | 11                                | 8                |
| 5. Business travel                            | 647,963                                | 20                              | 19                                | 7                |

#### Companies calculating the highest percentage of relevant categories<sup>6</sup>

|                              |         |
|------------------------------|---------|
| Coca-Cola Enterprises, Inc.  | 10 : 10 |
| Kraft Foods                  | 9 : 9   |
| Mondelēz International Inc.  | 9 : 9   |
| Constellation Brands, Inc.   | 3 : 3   |
| Molson Coors Brewing Company | 9 : 12  |

4. Based on Question 14.1, “relevant, not calculated” and “relevant, calculated.”  
 5. Based on Question 14.1, “relevant, calculated.”  
 6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as “relevant, calculated,” “relevant, not calculated,” “not evaluated,” and no response.

3. Includes companies that did not respond to question.



“We believe businesses have a vital role to play in the global issue of climate change, and we’re committed to continuously improving our greenhouse gas governance and performance around this challenge. All of Colgate’s sites have energy and carbon reduction goals. We have implemented a global ‘Top 10 Energy Actions’ program across all of our manufacturing operations to address our most impactful energy and carbon reduction opportunities. We’re also conducting ‘Energy Treasure Hunts’ at our largest strategic sites.

Colgate is investing at least five percent of our manufacturing capital budget in ‘planet’-related projects annually (such as investments in energy, carbon, water and waste reduction). In 2012, Colgate invested \$31 million in 167 ‘planet’-related projects, a large percentage of which delivered energy and carbon reduction together with financial savings, enabling us to maintain emissions levels below regulatory thresholds in most geographies.”

**Colgate-Palmolive Company**



# Energy

Response rate

**39%** (16 of 41)

## Key industries within sector

▼ Respondents ▽ Nonrespondents



### New respondents

Newfield Exploration Company

### Largest nonrespondents<sup>1</sup>

Phillips 66  
Kinder Morgan, Inc.  
EOG Resources, Inc.

## Meet the leaders

### Companies listed on both CPLI and CDLI

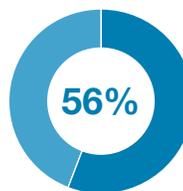
Spectra Energy Corp **98 A**

### Companies listed on CDLI

Chevron Corporation **97 A-**

Hess Corporation **97 B**

## Strategic advantage



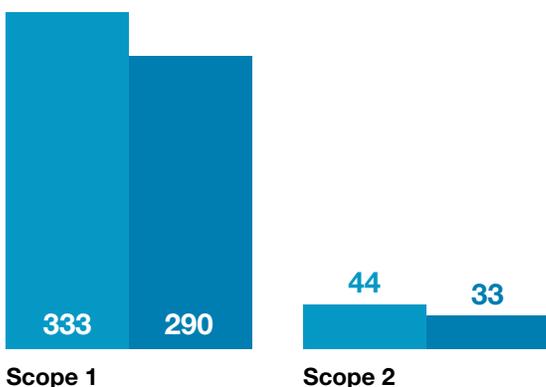
**claim strategic advantage from integrating climate change into their strategy**

**“We consider prudent management of climate-change-related business risks and opportunities to be of significant importance to Hess’ reputation and license to operate. Hess’ strategic priorities related to climate change include both mitigation and resilience measures.”**  
**– Hess Corporation**

**“One of our major business strategies [...] revolves around technology—we invest in profitable renewable energy and energy efficiency solutions. Chevron’s technology activities support the company’s worldwide operations by developing and deploying technology solutions that drive business growth and efficiency. As of 2012, Chevron’s energy index to measure energy efficiency has shown a 34 percent improvement since 1992.”**  
**– Chevron Corporation**

## Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

■ 2012 ■ 2013



<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

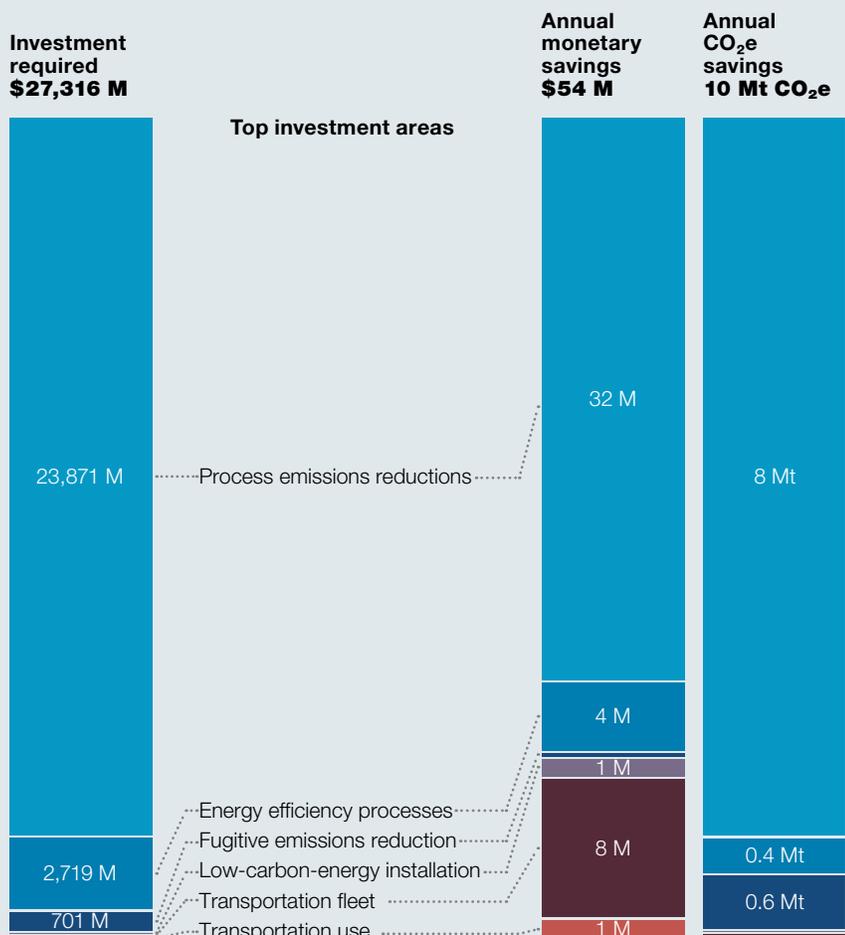
<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

# Energy Investments

## Investing to cut carbon emissions

### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 9%

of Energy sector respondents' capex is invested in emissions reduction efforts. Almost nine-tenths of the invested dollars relate to process emissions reduction projects.

### Investments with high monetary and GHG savings

**Apache Corporation:** Installation of low-pressure gas compressors at several batteries to sell gas into high line pressure that had exceeded vessel rating, thus eliminating cold venting (methane discharge).

**Investment reported:** \$118,000  
**Annual monetary savings:** \$887,000  
**Annual GHG reductions:** 211,700 tCO<sub>2</sub>e

**ConocoPhillips:** Process emissions reductions projects to prevent or reduce emissions from US E&P operations.

**Investment reported:** \$25 million  
**Annual monetary savings:** \$8.3 million  
**Annual GHG reductions:** 1,000,000 tCO<sub>2</sub>e

**Hess Corporation:** Investment in oil and gas infrastructure, including oil and gas gathering lines, compression stations, and grouped production facilities. Hess is also in the process of more than doubling the capacity of their Tioga Gas Plant. This expansion and associated gathering infrastructure will increase Hess's capacity to process the gas produced from their operations and other companies' operations, and will contribute to reductions in gas flaring.

**Investment reported:** \$1.2 billion  
**Annual monetary savings:** \$12.5 million  
**Annual GHG reductions:** 500,000 tCO<sub>2</sub>e

### The payback

**113** total initiatives implemented this year, with the greatest number of projects falling within the 1- to 3-year payback horizon

|               | # Projects | Investment required |
|---------------|------------|---------------------|
| <1 year       | 20         | \$2 M               |
| 1-3 years     | 35         | \$38 M              |
| 4-10 years    | 29         | \$25,479 M          |
| 11-15 years   | 6          | \$17 M              |
| 16-20 years   | 2          | \$64 M              |
| >25 years     | 1          | \$1,200 M           |
| Not disclosed | 20         | \$516 M             |

# Energy

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

**Top 3 risks and opportunities across all categories:**\* ▾ Regulatory ▾ Physical ▾ Other

**Risks**

- Cap-and-trade schemes
- Uncertainty surrounding new regulation
- Reputation

**Chevron Corporation:** “Chevron began implementing its Action Plan on Climate Change [which] calls for reducing emissions and increasing energy efficiency, investing in research, development and improved technology, pursuing business opportunities in promising, innovative energy technologies, and supporting flexible and economically sound policies and mechanisms that protect the environment [...]”

**Opportunities**

- Cap-and-trade schemes
- Changing consumer behavior
- Reputation

**Apache Corporation:** “The total potential revenue to Apache from potential GHG emission trading schemes and their associated credits resulting from emissions reductions projects is estimated to be in the order of millions of dollars.”

**Noble Energy, Inc.:** “Natural gas will be an economically feasible bridge fuel until renewable sources can be deployed over the next several decades. If consumer attitudes shift and realize the benefits of natural gas, Noble Energy may financially benefit from the increased demand for natural gas during this transition period.”

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

**Engaging with value chain**

**63%** of Energy respondents engage with the value chain on climate change management

- 50% engage with **suppliers**
- 25% engage with **customers**
- 19% engage with **other partners**
- 38% do not engage<sup>3</sup>

**Companies that engage with suppliers representing >50% of spend:**

|                   |            |
|-------------------|------------|
| Baker Hughes Inc. | <b>90%</b> |
|-------------------|------------|

**Managing Scope 3:** Identifying what’s relevant and tracking emissions

| Top 5 most relevant categories                | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|---|--|---------------------------------|-----------------------------------|------------------|
|   |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Use of sold products                       | 1,073,780,762                          | 11                              | 6                                 | 1                |
| 2. Purchased goods and services               | 11,604,057                             | 8                               | 3                                 | 2                |
| 3. Downstream transportation and distribution | 7,000,021                              | 7                               | 2                                 | 2                |
| 4. Business travel                            | 2,197,450                              | 8                               | 6                                 | 1                |
| 5. Upstream transportation and distribution   | 215,789                                | 8                               | 3                                 | 2                |

**Companies calculating the highest percentage of relevant categories<sup>6</sup>**

|                     |              |
|---------------------|--------------|
| ConocoPhillips      | <b>3 : 3</b> |
| Hess Corporation    | <b>3 : 3</b> |
| Chevron Corporation | <b>1 : 1</b> |
| Spectra Energy Corp | <b>8 : 9</b> |
| Baker Hughes Inc.   | <b>2 : 7</b> |

4. Based on Question 14.1, “relevant, not calculated” and “relevant, calculated.”  
 5. Based on Question 14.1, “relevant, calculated.”  
 6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as “relevant, calculated,” “relevant, not calculated,” “not evaluated,” and no response.

3. Includes companies that did not respond to question.



“Spectra Energy’s core business strategy is to lead the energy infrastructure industry in terms of safe and reliable operations, customer responsiveness and profitability. The versatility, diversity and economical and environmental attributes of natural gas continue to serve North America’s energy needs and help us transition to a lower carbon economy. The company is pursuing about \$25bn in energy investment opportunities by 2020.”

**Spectra Energy Corp**

# Financials

Response rate

**70%** (55 of 79)

## Key industries within sector

▼ Respondents ▽ Nonrespondents



### New respondents

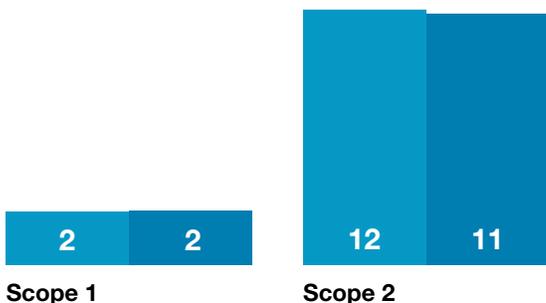
- Ameriprise Financial, Inc.
- Health Care REIT, Inc.
- NASDAQ OMX Group, Inc.
- Ventas, Inc.

### Largest nonrespondents<sup>1</sup>

- Berkshire Hathaway Inc.
- Loews Corporation
- Public Storage

## Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

■ 2012 ■ 2013



## Meet the leaders

### Companies listed on both CPLI and CDLI

|                          |       |
|--------------------------|-------|
| BNY Mellon               | 100 A |
| NYSE Euronext            | 99 A  |
| Bank of America          | 98 A  |
| Goldman Sachs Group Inc. | 98 A  |
| Unum Group               | 97 A  |
| KeyCorp                  | 96 A  |
| Morgan Stanley           | 96 A  |
| Wells Fargo & Company    | 96 A  |

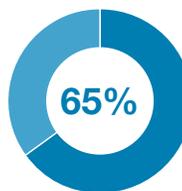
### Companies listed on CPLI

|   |      |
|---|------|
| Principal Financial Group, Inc.             | 95 A |
| Comerica Inc.                               | 94 A |
| The Hartford Financial Services Group, Inc. | 94 A |
| ACE Limited                                 | 93 A |
| Host Hotels & Resorts, Inc.                 | 93 A |

### Companies listed on CDLI

|                                  |       |
|----------------------------------|-------|
| CBRE Group, Inc.                 | 98 C  |
| Marsh & McLennan Companies, Inc. | 98 B  |
| Simon Property Group             | 98 B  |
| HCP, Inc.                        | 97 A- |
| Legg Mason, Inc.                 | 97 B  |
| Allstate Corporation             | 96 B  |

## Strategic advantage



**claim strategic advantage from integrating climate change into their strategy**

**“In realizing our 16-year \$70 billion environmental business commitment, we will continue to grow our business, promote a greener global economy and address climate change while helping our clients meet their own sustainability objectives. This will contribute directly to our top-line growth and position us to capitalize on the longer term opportunities that exist.” —Bank of America**

<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

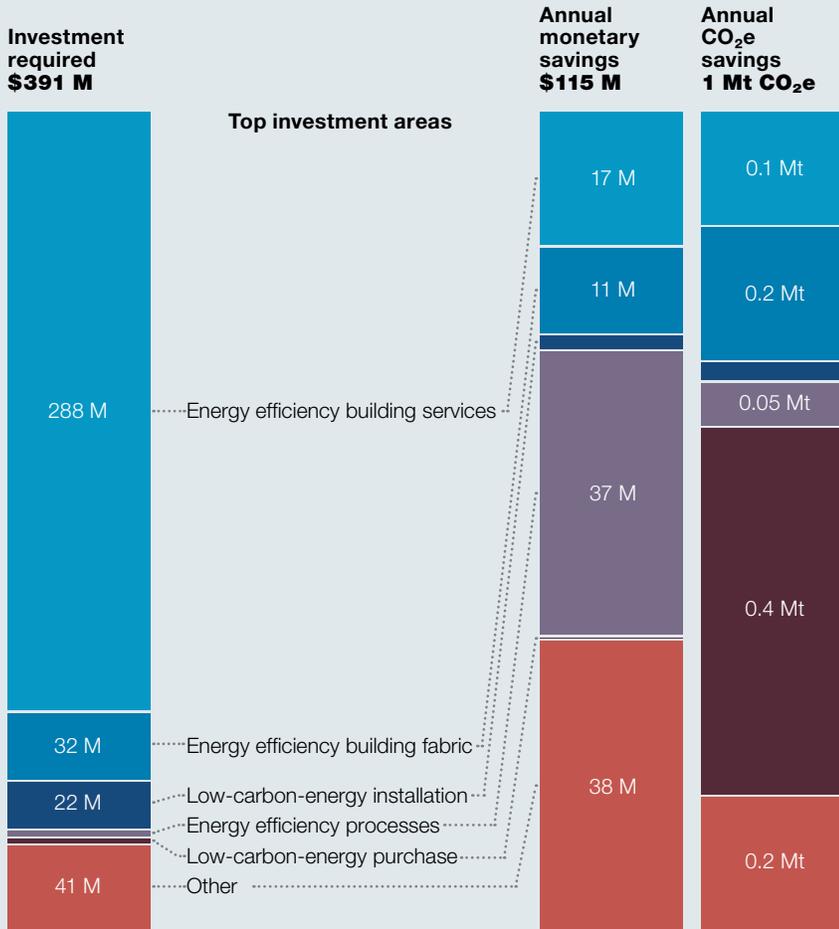
# Financials

## Investments

### Investing to cut carbon emissions

#### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** "Other" includes data center energy management, procurement management and miscellaneous energy efficiency projects. Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 0.1%

of Financials sector respondents' capex is invested in emissions reduction efforts. Over four-fifths of the dollars invested were toward energy efficiency projects in building services and fabric.

#### Investments with high monetary and GHG savings

**BNY Mellon:** Continued ongoing progressive Enterprise Data Center Power Utilization Effectiveness (PUE) improvement program.

**Investment reported:** \$500,000

**Annual monetary savings:** \$4.2 million

**Annual GHG reductions:** 32,831 tCO<sub>2</sub>e

**CBRE Group, Inc.:** Introduced the ENERGYplus platform that automatically uploads building data to ENERGY STAR and the development of a coordinated and centralized ENERGY STAR label engineering service to improve building performance and reduce its Scope 3 emissions.

**Investment reported:** \$10,000

**Annual monetary savings:** \$30.4 million

**Annual GHG reductions:** 30,600 tCO<sub>2</sub>e

#### Wells Fargo & Company:

Implemented a space optimization project, which consolidated about 4 million square feet from its corporate portfolio, reducing water use and the company's Scope 1 and Scope 2 emissions.

**Investment reported:** \$11 million

**Annual monetary savings:** \$11 million

**Annual GHG reductions:** 70,800 tCO<sub>2</sub>e

#### The payback

**233** total initiatives implemented this year, with the greatest number of projects falling in the less-than-1-year payback horizon

|               | # Projects | Investment required |
|---------------|------------|---------------------|
| <1 year       | 73         | \$15 M              |
| 1–3 years     | 69         | \$68 M              |
| 4–10 years    | 43         | \$277 M             |
| 11–15 years   | 6          | \$20 M              |
| 16–20 years   | 1          | \$0.8 M             |
| 21–25 years   | 1          | \$3 M               |
| >25 years     | 9          | \$7 M               |
| Not disclosed | 31         | \$0 M               |

# Financials

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

#### Top 3 risks and opportunities across all categories:\* ▾ Regulatory ▾ Physical ▾ Other

##### Risks

Uncertainty surrounding new regulation

Tropical cyclones (hurricanes and typhoons)

Reputation

**Unum Group:** “More potential customers and investors are embedding sustainability in the decision-making process [and] the financial implications of not meeting these expectations could result in a negative impact on our reputation that would result in a loss of business.” Methods to manage this risk include a robust corporate social responsibility program and implementing an enterprise level strategic energy management plan.

##### Opportunities

Cap-and-trade schemes

Changing consumer behavior

Reputation

**BNY Mellon:** “BNY Mellon has the opportunity to provide various services to regional cap-and-trade programs such as RGGI and the California cap-and-trade program, which is part of the greater Western Climate Initiative (WCI). As future cap-and-trade and GHG regulations are put in place, BNY Mellon would be well positioned to generate substantive revenues by providing financial services to these programs.”

**HCP, Inc.:** “In 2012, rental and related revenues for properties within our boundary were \$475 million. If those revenues increased by 1% from attracting additional tenants desiring green and/or ENERGY STAR/LEED certified space, it could earn us approximately \$4.8 million in additional revenues.”

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

#### Engaging with value chain

**56%** of Financials respondents engage with the value chain on climate change management

44% engage with **suppliers**

24% engage with **customers**

15% engage with **other partners**

44% do not engage<sup>3</sup>

#### Companies that engage with suppliers representing >50% of spend:

|   |             |
|---|-------------|
| Host Hotels & Resorts, Inc.                 | <b>100%</b> |
| The Hartford Financial Services Group, Inc. | <b>65%</b>  |
| Bank of America                             | <b>62%</b>  |

#### Managing Scope 3: Identifying what’s relevant and tracking emissions

| Top 5 most relevant categories   | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|----------------------------------|--|---------------------------------|-----------------------------------|------------------|
|                                  |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Purchased goods and services  | 5,040,458                              | 32                              | 10                                | 11               |
| 2. Employee commuting            | 1,566,895                              | 36                              | 14                                | 6                |
| 3. Business travel               | 1,296,249                              | 45                              | 41                                | 2                |
| 4. Capital goods                 | 485,579                                | 24                              | 5                                 | 13               |
| 5. Waste generated in operations | 200,562                                | 28                              | 11                                | 9                |

#### Companies calculating the highest percentage of relevant categories<sup>6</sup>

|                          |                |
|--------------------------|----------------|
| BNY Mellon               | <b>8 : 8</b>   |
| NYSE Euronext            | <b>7 : 7</b>   |
| Bank of America          | <b>10 : 11</b> |
| Goldman Sachs Group Inc. | <b>7 : 8</b>   |
| Genworth Financial, Inc. | <b>5 : 6</b>   |

4. Based on Question 14.1, “relevant, not calculated” and “relevant, calculated.”

5. Based on Question 14.1, “relevant, calculated.”

6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as “relevant, calculated,” “relevant, not calculated,” “not evaluated,” and no response.

3. Includes companies that did not respond to question.



“NYSE Euronext recognizes that a sustainably managed, natural environment is vitally important to our business, our employees, our clients, and the global community at large. We are committed to minimizing the environmental impacts of our activities and conducting our business in a manner that is consistent with our commitment to corporate social responsibility and sustainability. As a global exchange group home to the world’s leading companies, NYSE Euronext has instituted a strategy to leverage its global platform to facilitate conversations on environmental topics among industry thought leaders, CEOs, entrepreneurs, non-profit organizations, and policy makers, to highlight best practices and solutions related to climate change.”

**NYSE Euronext**

NYSE Euronext is the only global carbon-neutral exchange group. Pictured is the NYSE trading floor recently modernized with high-efficient LED-backed multimedia display technology. The modernization included the replacement of multi-segmented single-pane windows along the east and west facades with high-performance triple-pane insulated units set in thermal break frames and mullions.

Photo: Ben Hider

# Health Care

Response rate

**67%** (34 of 51)

## Key industries within sector

▼ Respondents   ▽ Nonrespondents



### New respondents

Stryker Corporation  
Tenet Healthcare Corporation

### Largest nonrespondents<sup>1</sup>

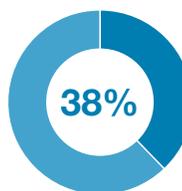
Gilead Sciences Inc.  
Express Scripts Holding Company  
McKesson Corporation

## Meet the leaders

### Companies listed on CDLI

|                         |              |
|-------------------------|--------------|
| Johnson & Johnson       | <b>98 A-</b> |
| UnitedHealth Group Inc. | <b>98 B</b>  |
| Bristol-Myers Squibb    | <b>96 B</b>  |

## Strategic advantage



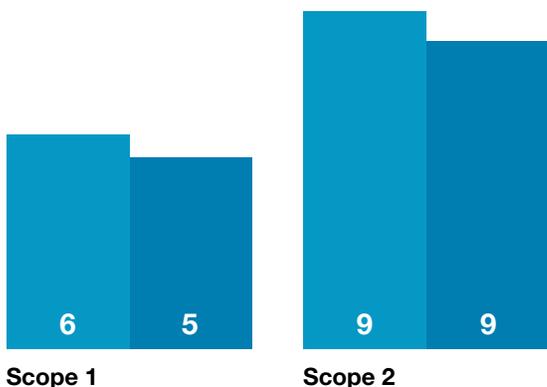
**claim strategic advantage from integrating climate change into their strategy**

**“We see a strategic advantage in driving climate change initiatives, specifically energy use reduction and efficiencies as a proxy for GHG reduction, because we can control product-related and non-product-related expenses. By aggressively preparing for the long-term requirements of climate change-induced risks, we will [be] better positioned to ensure the reliability of our medicine product supply and the long-term growth of our product pipeline.”** —**Bristol-Myers Squibb**

**“As a result of investing in various projects in 2011 that increase energy efficiency and solar photovoltaic capacity, we achieved estimated cost avoidance of approximately \$7 million in 2012 alone. We also derive competitive advantage by meeting the demand that a growing number of customers have for sustainable products through our EARTHWARDS program and the associated tools that help us to minimize the environmental impact of products throughout their life cycle.[...] The sales of products that have achieved EARTHWARDS designation was approximately \$4 billion in 2012.”** —**Johnson & Johnson**

## Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

▼ 2012   ▽ 2013



<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

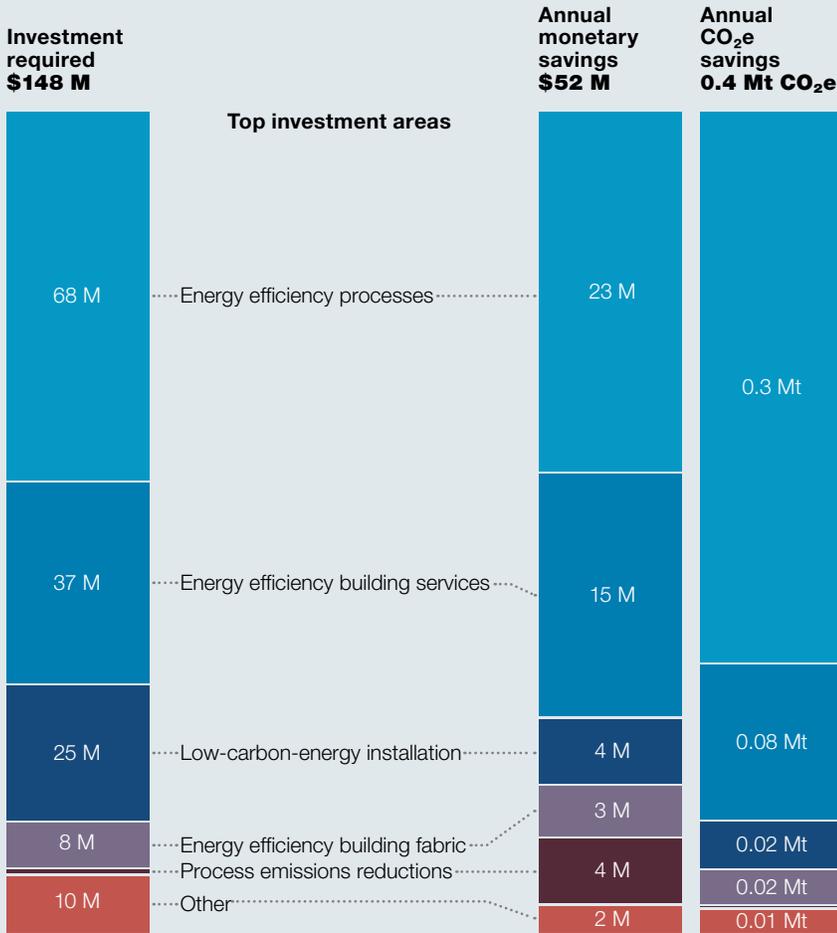
<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

# Health Care Investments

## Investing to cut carbon emissions

### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** "Other" includes investment in hydrogen fuel cell system, installation of energy management software on computers, and implementation of composting at a corporate cafeteria. Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 0.1%

of Health Care sector respondents' capex is invested in emissions reduction efforts. Almost half of all the dollars invested relate to energy efficiency processes.

### Investments with high monetary and GHG savings

**Eli Lilly & Co.:** Process improvements and energy efficiency initiatives related to building fabric and services in its Clinton, IN, facility, which decreased overall production energy intensity from 290 kBtu/bulk kilogram in 2007 to 190 kBtu/bulk kilogram in 2012.  
**Investment reported:** \$37.9 million  
**Annual monetary savings:** \$12.6 million  
**Annual GHG reductions:** 206,095 tCO<sub>2</sub>e

**Merck & Co., Inc.:** HVAC modifications at several sites around the world, including the shutdown of unused systems, turndowns on weekends, modification of operating parameters, and replacement of HEPA filtration systems.  
**Investment reported:** \$641,900  
**Annual monetary savings:** \$1.4 million  
**Annual GHG reductions:** 13,377 tCO<sub>2</sub>e

**Pfizer Inc.:** Implementation of 116 energy efficiency projects, including upgrades to boilers, compressed air systems, and refrigeration systems as well as the installation of heat recovery systems at facilities located throughout the world.

**Investment reported:** \$8.9 million  
**Annual monetary savings:** \$3.6 million  
**Annual GHG reductions:** 33,458 tCO<sub>2</sub>e

### The payback

**150** total initiatives implemented this year, with the greatest number of projects falling within the 1- to 3-year payback horizon



# Health Care

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

#### Top 3 risks and opportunities across all categories:\* Regulatory Physical Other

##### Risks

Cap-and-trade schemes

Change in precipitation extremes and droughts

Tropical cyclones (hurricanes and typhoons)

##### Opportunities

Carbon taxes

Fuel/energy taxes and regulations

Changing consumer behavior

**Baxter International Inc.:** "A severe weather event could adversely impact elements of Baxter's supply chain and manufacturing operations, including material, energy, water and employee availability."

**Life Technologies Corp.:** "Increased global regulation and changes to existing regulations will accelerate demand for innovative solutions that will drive the climate mitigation market (biofuels; bioindustrials; carbon sequestration; and bio-remediation), which we are well positioned to service. We estimate that the market for mitigation technologies that we can address could reach \$6.0 billion by 2020. We estimate that our share of this market could be \$900 million."

**Pfizer Inc.:** "Pfizer perceives [changing consumer behavior] as an emerging area of financial opportunity. Increasingly, global tender requests and supplier surveys request information on our environmental sustainability programs and climate change initiatives to help inform their procurement decisions."

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

#### Engaging with value chain

**56%** of Health Care respondents engage with the value chain on climate change management

47% engage with **suppliers**

29% engage with **customers**

21% engage with **other partners**

44% do not engage<sup>3</sup>

#### Companies that engage with suppliers representing >50% of spend:

|                         |     |
|-------------------------|-----|
| Life Technologies Corp. | 80% |
| Pfizer Inc.             | 80% |

#### Managing Scope 3: Identifying what's relevant and tracking emissions

| Top 5 most relevant categories                | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|---|--|---------------------------------|-----------------------------------|------------------|
|   |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Purchased goods and services               | 12,772,763                             | 16                              | 6                                 | 11               |
| 2. Downstream transportation and distribution | 3,759,991                              | 19                              | 9                                 | 6                |
| 3. Business travel                            | 1,489,480                              | 24                              | 23                                | 4                |
| 4. Capital goods                              | 1,146,426                              | 14                              | 4                                 | 12               |
| 5. Employee commuting                         | 794,101                                | 19                              | 10                                | 9                |

#### Companies calculating the highest percentage of relevant categories<sup>6</sup>

|                           |         |
|---------------------------|---------|
| Abbott Laboratories       | 5 : 5   |
| Pfizer Inc.               | 8 : 9   |
| Biogen Idec Inc.          | 7 : 8   |
| Baxter International Inc. | 10 : 12 |
| Waters Corporation        | 6 : 12  |
| UnitedHealth Group Inc.   | 2 : 4   |

4. Based on Question 14.1, "relevant, not calculated" and "relevant, calculated."

5. Based on Question 14.1, "relevant, calculated."

6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as "relevant, calculated," "relevant, not calculated," "not evaluated," and no response.

3. Includes companies that did not respond to question.

A large solar panel array is visible in the background, with a sheep grazing in the foreground. The solar panels are arranged in a grid pattern, and the sheep is positioned in the lower right quadrant of the image. The background is a clear blue sky.

“At Johnson & Johnson, we believe human health benefits from a healthy planet. We have been setting environmental goals since 1987, and our newest goals are our most comprehensive to date. They include a 20% absolute reduction in facility CO<sub>2</sub> emissions, without the use of voluntary renewable energy credits or carbon offsets, by 2020 using our 2010 baseline.

In addition to reducing our GHG emissions, we have several other environmental goals as part of our Healthy Future 2015 sustainability program, including increasing onsite renewable or clean technology energy capacity to 50 MW; decreasing our fleet CO<sub>2</sub> emissions per kilometer driven by 20%; reducing absolute water consumption by 10%; reducing total waste disposal by 10%; and evaluating all new products and packaging for sustainability improvements. We have also made the strategic decision to partner with suppliers who embrace sustainability, including a target for all of our strategic suppliers to have two or more publicly reported sustainability goals.”

**Johnson & Johnson**

The Titusville, NJ, campus at Janssen Pharmaceutical Companies of Johnson & Johnson has a 4.1 MW solar field that became operational in September 2010. Sheep graze within, underneath and around the solar panels. By constantly trimming the grass and clover, they act as a built-in landscaping crew.

## Industrials

Response rate

**72%** (44 of 61)

### Key industries within sector

▼ Respondents ▽ Nonrespondents



#### New respondents

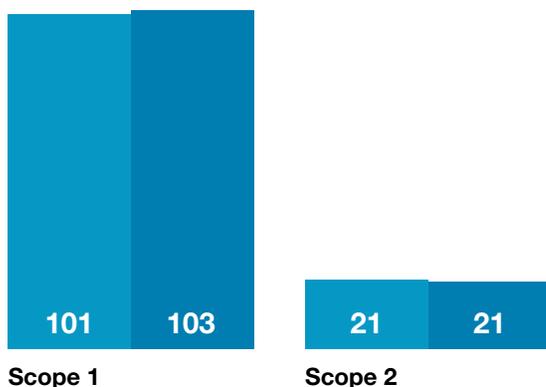
Iron Mountain Incorporated  
Tyco International

#### Largest nonrespondents<sup>1</sup>

Caterpillar Inc.  
Precision Castparts Corp.

### Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

■ 2012 ■ 2013



### Meet the leaders

#### Companies listed on both CPLI and CDLI

|                        |      |
|------------------------|------|
| Northrop Grumman Corp. | 99 A |
| Raytheon Company       | 98 A |

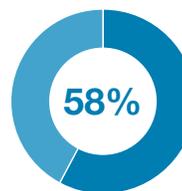
#### Companies listed on CPLI

|                              |      |
|------------------------------|------|
| CSX Corporation              | 95 A |
| Stanley Black & Decker, Inc. | 94 A |
| Lockheed Martin Corporation  | 91 A |

#### Companies listed on CDLI

|                           |        |
|---------------------------|--------|
| Eaton Corporation         | 100 A- |
| UPS                       | 99 A-  |
| Union Pacific Corporation | 98 B   |
| Boeing Company            | 96 A-  |

### Strategic advantage



**claim strategic advantage from integrating climate change into their strategy**

#### “Eaton spent \$439 million for research and

development to continue to launch innovative products and solutions that help our customers meet their most demanding energy and emissions requirements. We estimate that new technologies being developed at Eaton Innovation Centers have the potential to reduce the CO<sub>2</sub> emissions of our applications by more than 60 percent by 2050, helping to mitigate climate change. Eaton’s sustained R&D investments contribute to our improved profitability.” —**Eaton Corporation**

#### “The strategic advantages gained through the greenG

program initiatives are a) operational efficiency to support competitive pricing and ability to anticipate and meet customer needs, b) strategic positioning for contract competition, c) integration of climate change impacts into product and service development that support Executive Orders 13423 and 13514, and d) leveraging NGC capabilities in cutting-edge fields to predict and respond to climate change issues as they affect customers, now and in the future.”

—**Northrop Grumman Corp.**

<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

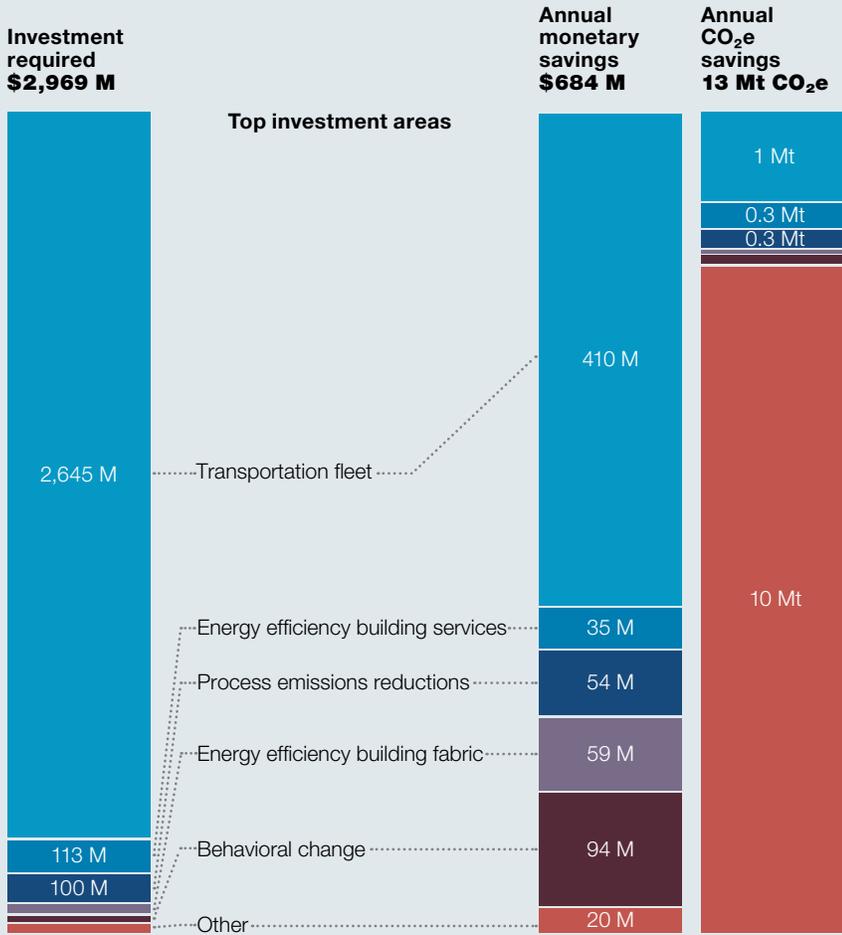
<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

# Industrials Investments

## Investing to cut carbon emissions

### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** "Other" includes R&D investment, real estate consolidation, IT upgrades, waste management and employee commuting programs. Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 4%

of Industrials sector respondents' capex is invested in emissions reduction efforts. Almost nine-tenths of the dollars invested were toward fleet projects.

### Investments with high monetary and GHG savings

**Union Pacific Corporation:** Fuel Masters Unlimited initiative, which helps locomotive engineers operate trains in the most-fuel-efficient manner, meaning reduced fuel costs and locomotive emissions. As part of this initiative, UP has trained more than 7,000 of its road locomotive engineers, or more than 95 percent of them, by using this program.  
**Investment reported:** \$12 million  
**Annual monetary savings:** \$18 million  
**Annual GHG reductions:** 51,537 tCO<sub>2</sub>e

**UPS:** Package flow technologies that optimize delivery based on the hub-and-spoke model; and telematics that helps UPS determine a truck's performance and condition by capturing data on more than 200 elements, including speed, RPM, and oil pressure.

**Investment reported:** \$600 million  
**Annual monetary savings:** \$200 million  
**Annual GHG reductions:** 100,000 tCO<sub>2</sub>e

**Waste Management, Inc.:** A range of technologies to make trucks more efficient, including using alternative fuels and optimizing truck design. In 2012, introduced a new program to improve fleet efficiency called Service Delivery Optimization or SDO, which aims to optimize logistics through a combination of technological advancement in onboard computing, fleet maintenance, route management, and overall safety.

**Investment reported:** \$500 million  
**Annual monetary savings:** \$100 million  
**Annual GHG reductions:** 350,000 tCO<sub>2</sub>e

### The payback

**200** total initiatives implemented this year, with the greatest number of projects falling within the 1- to 3-year payback horizon

|               | # Projects | Investment required |
|---------------|------------|---------------------|
| <1 year       | 34         | \$14 M              |
| 1-3 years     | 72         | \$2,222 M           |
| 4-10 years    | 30         | \$679 M             |
| 11-15 years   | 6          | \$34 M              |
| 16-20 years   | 2          | \$9 M               |
| 21-25 years   | 2          | \$7 M               |
| >25 years     | 8          | \$3 M               |
| Not disclosed | 46         | \$0.4 M             |

# Industrials

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

#### Top 3 risks and opportunities across all categories:\* Regulatory Physical Other

##### Risks

Fuel/energy taxes and regulations

Tropical cyclones (hurricanes and typhoons)

Changing consumer behavior

**Iron Mountain Incorporated:** "During the past few years we have seen an increase in severe storms and hurricanes due to climate change. These events could result in customer service disruption, physical damage to one or more key operating facilities, the temporary closure of one or more key operating facilities or the temporary disruption of information systems, each of which could negatively impact our results of operations."

##### Opportunities

Other regulatory drivers

Product efficiency regulations and standards

Changing consumer behavior

**First Solar, Inc.:** "Measured in terms of the volume of renewable electricity required to meet its RPS mandate, California's RPS program is the most significant in the U.S., and the California market for renewable energy dominates the western U.S. region."

**Lockheed Martin Corporation:** "Regulatory requirements [...] present potential opportunities for Lockheed Martin to support our customers.[...] We anticipate increasing demand for energy efficient products and services to meet new regulatory requirements, as well as greater demand for manufacturing processes that minimize the use of water, energy, waste, and carbon-emitting products."

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

#### Engaging with value chain

**74%** of Industrials respondents engage with the value chain on climate change management

53% engage with **suppliers**

60% engage with **customers**

26% engage with **other partners**

26% do not engage<sup>3</sup>

#### Companies that engage with suppliers representing >50% of spend:

|                         |      |
|-------------------------|------|
| Fluor Corporation       | 100% |
| Ingersoll-Rand Co. Ltd. | 71%  |

#### Managing Scope 3: Identifying what's relevant and tracking emissions

| Top 5 most relevant categories              | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|---|--|---------------------------------|-----------------------------------|------------------|
|   |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Business travel                          | 138,309,291                            | 31                              | 27                                | 4                |
| 2. Upstream transportation and distribution | 59,279,287                             | 22                              | 9                                 | 10               |
| 3. Purchased goods and services             | 13,639,005                             | 22                              | 4                                 | 12               |
| 4. Capital goods                            | 962,069                                | 22                              | 5                                 | 12               |
| 5. Waste generated in operations            | 142,372                                | 21                              | 9                                 | 12               |

#### Companies calculating the highest percentage of relevant categories<sup>6</sup>

|                               |         |
|-------------------------------|---------|
| Eaton Corporation             | 8 : 8   |
| Jacobs Engineering Group Inc. | 2 : 2   |
| Cummins Inc.                  | 11 : 13 |
| 3M Company                    | 9 : 13  |
| UPS                           | 4 : 6   |

4. Based on Question 14.1, "relevant, not calculated" and "relevant, calculated."

5. Based on Question 14.1, "relevant, calculated."

6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as "relevant, calculated," "relevant, not calculated," "not evaluated," and no response.

3. Includes companies that did not respond to question.

“Intermodal shipments, which capitalize on the environmental efficiency of freight rail to reduce highway congestion and carbon emissions from trucks, now represent 38 percent of CSX’s portfolio by volume. To capitalize on any potential opportunities, CSX continues to invest in fuel efficient technologies and environmentally responsible network expansion. In the last decade, CSX has invested more than \$1.75 billion to upgrade its fleet with more efficient, low-emission locomotives and other new technologies. Additionally, we continue to invest in the CSX network through participation in public-private partnerships such as the National Gateway project, an approximately \$850 million rail infrastructure and intermodal terminal capacity project. The initiative eliminates 20 million tons of carbon emissions, reduces 1,000 tons of particulate matter, and saves nearly 2 billion gallons of fuel.”

**CSX Corporation**



# Information Technology

Response rate

**81%** (56 of 69)

## Key industries within sector

▼ Respondents ▽ Nonrespondents



### New respondents

F5 Networks  
Fiserv, Inc.

### Largest nonrespondents<sup>1</sup>

Apple Inc.  
Citrix Systems

## Meet the leaders

### Companies listed on both CPLI and CDLI

|                       |       |
|-----------------------|-------|
| Cisco Systems, Inc.   | 100 A |
| Autodesk, Inc.        | 99 A  |
| Hewlett-Packard       | 99 A  |
| Adobe Systems, Inc.   | 97 A  |
| EMC Corporation       | 97 A  |
| Microsoft Corporation | 96 A  |

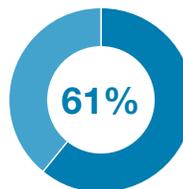
### Companies listed on CPLI

|                    |      |
|--------------------|------|
| JDS Uniphase Corp. | 88 A |
|--------------------|------|

### Companies listed on CDLI

|                      |      |
|----------------------|------|
| Symantec Corporation | 98 B |
|----------------------|------|

## Strategic advantage



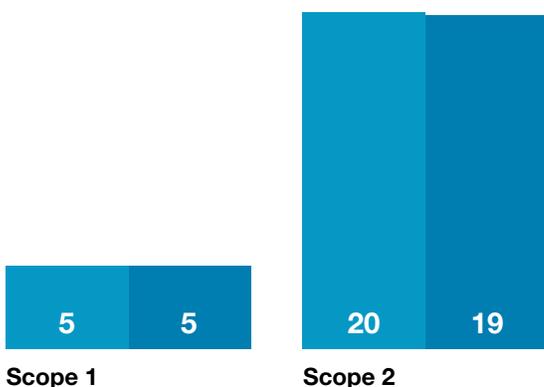
**claim strategic advantage from integrating climate change into their strategy**

**“As energy efficiency becomes increasingly important to our customers, many are looking to cloud computing to help reach their efficiency targets. Our strategic advantage lies in the fact that we have made a significant investment in cloud computing while continuing to build energy-smart on-premises software, giving customers the option to run highly efficient infrastructures on-premises, from the cloud, or both.” – Microsoft Corporation**

**“Using EMC’s products, our customers can manage their information assets with the same rigor and efficiency with which they manage their corporate physical assets. EMC’s data storage solutions help them to reduce their energy consumption and empower them to minimize their impacts on the environment by reducing their greenhouse gas emissions. Our technologies for virtualization, deduplication, and tiering create remarkable energy savings for our customers and provide strategic advantage over our competitors.” – EMC Corporation**

## Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

2012 2013



<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

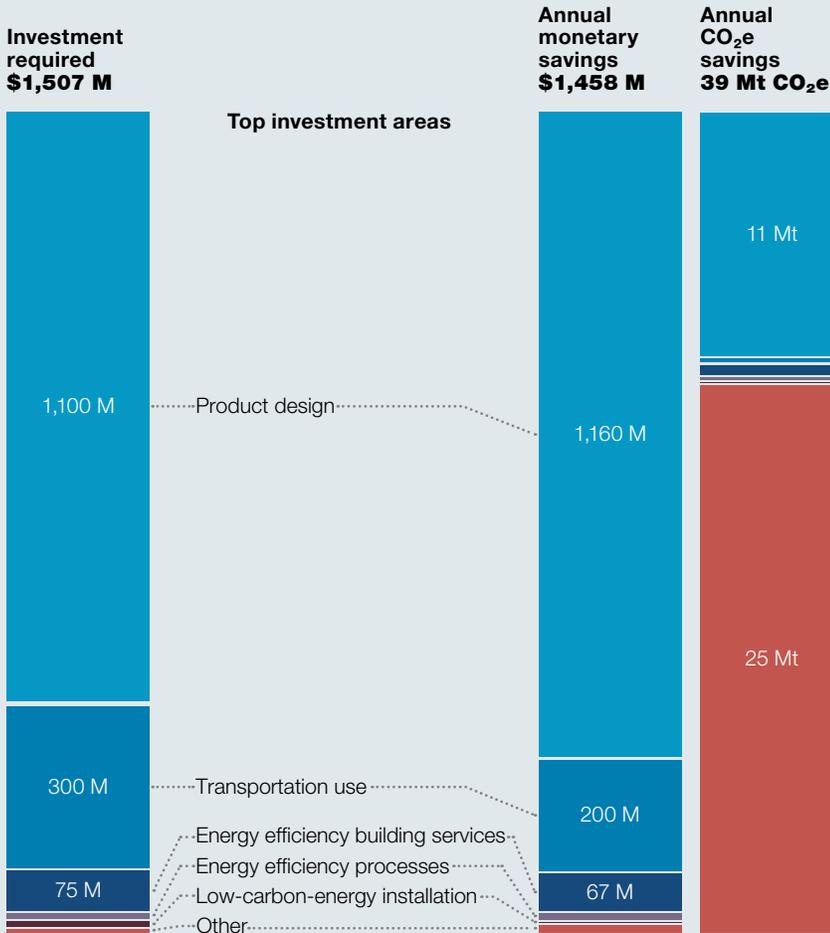
<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

# Information Technology Investments

## Investing to cut carbon emissions

### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** "Other" includes real estate consolidation and energy consumption optimization on devices and equipment. Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 7%

of Information Technology sector respondents' capex is invested in emissions reduction efforts. Over two-thirds of the dollars invested were in product design initiatives.

### Investments with high monetary and GHG savings

**Cisco Systems, Inc.:** To reduce Scope 3 business air-travel emissions, implemented remote collaboration technologies—including TelePresence, Jabber, and WebEx—to replace physical travel; these technologies allow Cisco employees to remotely collaborate with global colleagues without the need to travel.

**Investment reported:** \$300 million  
**Annual monetary savings:** \$150 million  
**Annual GHG reductions:** 66,400 tCO<sub>2</sub>e

**Intel Corporation:** Implemented a wide range of conservation projects across all facilities, such as more-efficient lighting and system controls, boiler and chilled-water system improvements, and cleanroom heating, ventilation, air-conditioning, and heat recovery improvements.

**Investment reported:** \$59 million  
**Annual monetary savings:** \$22 million  
**Annual GHG reductions:** 168,000 tCO<sub>2</sub>e

**Jabil Circuit, Inc.:** Established a policy of annual energy surveys for all facilities to identify energy loss problems in switch gear, disconnects, and building windows and penetrations.

**Investment reported:** \$476,447  
**Annual monetary savings:** \$2.1 million  
**Annual GHG reductions:** 14,208 tCO<sub>2</sub>e

### The payback

**226** total initiatives implemented this year, with the greatest number of projects falling within the 1- to 3-year payback horizon

|               | # Projects | Investment required |
|---------------|------------|---------------------|
| <1 year       | 60         | \$11M               |
| 1–3 years     | 78         | \$1,410 M           |
| 4–10 years    | 30         | \$70 M              |
| 11–15 years   | 5          | \$13 M              |
| >25 years     | 6          | \$3 M               |
| Not disclosed | 47         | \$0.3 M             |

# Information Technology

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

**Top 3 risks and opportunities across all categories:**\* ▾ Regulatory ▾ Physical ▾ Other

**Risks**

- Product efficiency regulations and standards
- Fuel/energy taxes and regulations
- Sea-level rise

**Opportunities**

- Product efficiency regulations and standards
- Changing consumer behavior
- Reputation

**Oracle Corporation:** “Oracle maintains existing alternate sources of supply for most of our hardware products, when possible. This gives Oracle greater flexibility to manage its manufacturing expenses. In response to changing energy costs and regulations, we are able to shift sourcing and shipping. Additionally, Oracle purchases energy in the open market when possible and uses advance purchasing and hedging to further minimize risk.”

**EMC Corporation:** “As data growth continues inexorably, focus on data storage efficiency is increasing. While there is potential for product efficiency (and labeling) regulations to negatively impact EMC, well-structured regulations would in fact highlight the efficiency benefit of EMC’s storage products.”

**Autodesk, Inc.:** “Helping customers address climate change represents a significant and growing opportunity for Autodesk [...]. New regulations will make our sustainability solutions more valuable to designers and engineers looking to cost-effectively deliver high performing, resource-efficient buildings, infrastructure and products, as well as to renovate or replace buildings and infrastructure affected by a changing climate.”

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

**Engaging with value chain**

**69%** of Information Technology respondents engage with the value chain on climate change management



**Companies that engage with suppliers representing ≥90% of spend:**<sup>4</sup>

|                                       |             |
|---------------------------------------|-------------|
| Adobe Systems, Inc.                   | <b>100%</b> |
| International Business Machines (IBM) | <b>100%</b> |
| EMC Corporation                       | <b>98%</b>  |
| Dell Inc.                             | <b>95%</b>  |
| Cisco Systems, Inc.                   | <b>90%</b>  |

**Managing Scope 3:** Identifying what’s relevant and tracking emissions

| Top 5 most relevant categories                | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|---|--|---------------------------------|-----------------------------------|------------------|
|   |  | indicated relevant <sup>5</sup> | calculated emissions <sup>6</sup> | did not evaluate |
| 1. Purchased goods and services               | 31,098,305                             | 22                              | 12                                | 12               |
| 2. Upstream transportation and distribution   | 4,858,198                              | 24                              | 12                                | 9                |
| 3. Business travel                            | 2,995,326                              | 39                              | 38                                | 2                |
| 4. Employee commuting                         | 1,784,150                              | 31                              | 18                                | 7                |
| 5. Downstream transportation and distribution | 630,846                                | 22                              | 9                                 | 6                |

**Companies calculating the highest percentage of relevant categories**<sup>7</sup>

|                     |              |
|---------------------|--------------|
| Autodesk, Inc.      | <b>9 : 9</b> |
| Hewlett-Packard     | <b>9 : 9</b> |
| Cisco Systems, Inc. | <b>8 : 8</b> |
| EMC Corporation     | <b>6 : 6</b> |
| Accenture           | <b>1 : 1</b> |

3. Includes companies that did not respond to question.  
 4. 12 companies in the sector report engagement on emissions and climate change with suppliers representing >50%. These include Advanced Micro Devices, Inc., Intel Corporation, Juniper Networks, Inc., Jabil Circuit, Inc., Oracle Corporation, LSI Corporation, and CA Technologies.

5. Based on Question 14.1, “relevant, not calculated” and “relevant, calculated.”  
 6. Based on Question 14.1, “relevant, calculated.”  
 7. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as “relevant, calculated,” “relevant, not calculated,” “not evaluated,” and no response.

“HP is pioneering products and solutions that help customers achieve more while reducing consumption and waste. In 2012, we continued to develop a robust set of energy saving technologies including climate/energy management services, extreme low-energy servers (HP Moonshot) and software solutions & tools, as well as consulting. These represent the most comprehensive end-to-end climate and energy management portfolio of anyone in the IT industry. HP’s Project Moonshot helps data center efficiencies to reach new heights for select workloads and applications, consuming up to 89% less energy and 80% less space, while reducing overall costs up to 77% compared to a traditional server.”

**Hewlett-Packard**



## Materials

### Response rate

**77%** (23 of 30)

### Key industries within sector

▼ Respondents   ▽ Nonrespondents



### New respondents

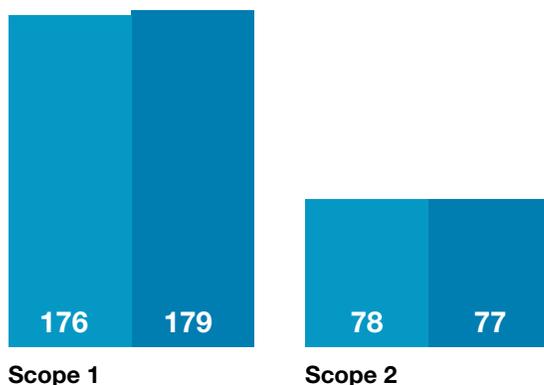
None

### Largest nonrespondents<sup>1</sup>

LyondellBasell Industries CIA  
Nucor Corporation  
CF Industries Holdings, Inc.

### Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

■ 2012   ■ 2013



### Meet the leaders

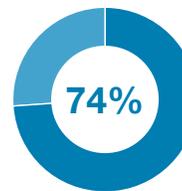
#### Companies listed on both CPLI and CDLI

|                                     |             |
|-------------------------------------|-------------|
| Ecolab Inc.                         | <b>98 A</b> |
| The Mosaic Company                  | <b>97 A</b> |
| E.I. du Pont de Nemours and Company | <b>96 A</b> |

#### Companies listed on CDLI

|                                |             |
|--------------------------------|-------------|
| Air Products & Chemicals, Inc. | <b>99 B</b> |
| MeadWestvaco Corp.             | <b>98 B</b> |
| Praxair, Inc.                  | <b>98 B</b> |
| Sigma-Aldrich Corporation      | <b>97 B</b> |

### Strategic advantage



**claim strategic advantage from integrating climate change into their strategy**

**“Praxair made a business decision to develop and launch a strategy of ‘sustainable productivity’ in Jan. 2012. Environmental metrics (particularly energy, GHG, water) are used as a new ‘way in’ to productivity thinking for the organization. These SD metrics were added to the productivity [management] system database; projects are tagged as ‘SD,’ entered with their environmental and cost savings, tracked monthly and reported quarterly to the Executive Office.[...] In 2012, Praxair realized \$112 million in cost savings and almost 500,000 Mt GHG emissions avoided through our sustainable productivity organization.”**  
**— Praxair, Inc.**

**“Our customers are setting aggressive environmental goals, and our ability to help them meet those goals is a competitive advantage. We are committed to developing products and services that help our customers provide clean environments for their customers and employees, run their businesses efficiently, optimize their water and energy use, and reduce waste. Our strong market share in energy and water intensive markets, our ability to influence GHG metrics and reporting with customers, and our ability to advance trends in product design give Ecolab a significant competitive advantage.”**  
**— Ecolab Inc.**

<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

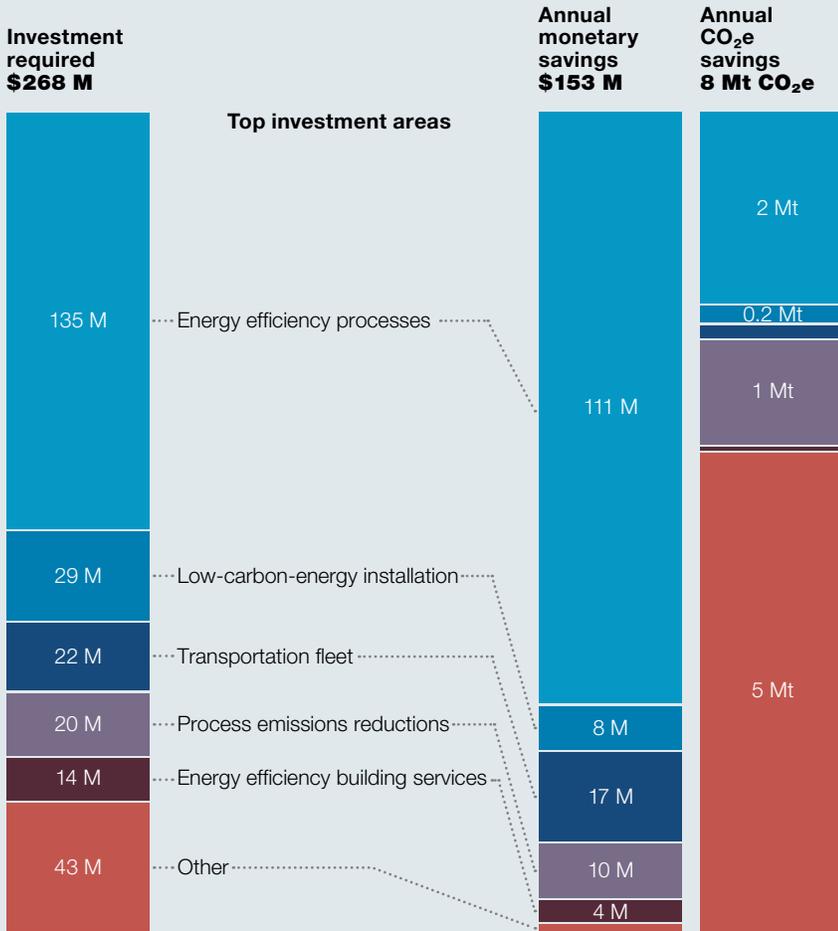
<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

# Materials Investments

## Investing to cut carbon emissions

### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** "Other" includes voluntary carbon capture and sequestration and the use of volatilization inhibitors for fertilizers. Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 2%

of Materials sector respondents' capex is invested in emissions reduction efforts. Half of the invested dollars relate to energy efficiency processes.

### Investments with high monetary and GHG savings

#### Air Products & Chemicals, Inc.:

Redesign/replacement/upgrade of equipment, changes to manufacturing processes, and facility improvements.

**Investment reported:** \$780,000

**Annual monetary savings:** \$10.4 million

**Annual GHG reductions:** 431,000 tCO<sub>2</sub>e

#### E.I. du Pont de Nemours and Company:

A wide range of energy efficiency projects as part of DuPont's Bold Energy Plan, including process optimization and fuel switching; savings were achieved from the implementation of over 600 individual improvement projects, 74 of which required capital investment.

**Investment reported:** \$22.5 million

**Annual monetary savings:** \$30 million

**Annual GHG reductions:** 157,850 tCO<sub>2</sub>e

**Praxair, Inc.:** 625 voluntary projects providing permanent improvements to energy requirements for turbines, compressors, fans, and other primary process equipment, as well as improvement to heat transfer efficiency and control equipment for process efficiency optimization.

**Investment reported:** \$70 million

**Annual monetary savings:** \$63 million

**Annual GHG reductions:** 400,000 tCO<sub>2</sub>e

### The payback

**126** total initiatives implemented this year, with the greatest number of projects falling within the 1- to 3-year payback horizon

| # Projects    | Investment required |
|---------------|---------------------|
| <1 year       | 30 \$28 M           |
| 1-3 years     | 42 \$137 M          |
| 4-10 years    | 19 \$44 M           |
| 11-15 years   | 2 \$42 M            |
| >25 years     | 3 \$17 M            |
| Not disclosed | 30 \$0              |

# Materials

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

#### Top 3 risks and opportunities across all categories:\* ▾ Regulatory ▾ Physical ▾ Other

##### Risks

Cap-and-trade schemes

Air pollution limits

Change in precipitation extremes and droughts

**Newmont Mining Corporation:** "Water shortage in many regions of the world is a growing problem, particularly for our industry, which is dependent on water supply for operations.[...] Demand for water resources is expected to grow with the world population, and increased conflicts over water will likely become more common. Conflicts over water rights may take many forms including law suits, legislative battles, and even military conflicts."

##### Opportunities

Product efficiency regulations and standards

Cap-and-trade schemes

Product labeling regulations

**Alcoa Inc.:** "New and proposed energy efficiency and GHG emissions regulations and standards for buildings and especially for transportation are driving demand for Alcoa's lightweight, high strength-to-mass-ratio materials."

**Sigma-Aldrich Corporation:** "The opportunity is [that] the costs associated with cap-and-trade schemes increase the potential ROI of energy efficiency and renewable energy implementation."

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

#### Engaging with value chain

**83%** of Materials respondents engage with the value chain on climate change management

74% engage with **suppliers**

65% engage with **customers**

43% engage with **other partners**

17% do not engage<sup>3</sup>

#### Companies that engage with suppliers representing ≥50% of spend:

|                                |     |
|--------------------------------|-----|
| Air Products & Chemicals, Inc. | 50% |
| Alcoa Inc.                     | 50% |

#### Managing Scope 3: Identifying what's relevant and tracking emissions

| Top 5 most relevant categories                | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|---|--|---------------------------------|-----------------------------------|------------------|
|   |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Use of sold products                       | 60,050,000                             | 10                              | 4                                 | —                |
| 2. Purchased goods and services               | 57,796,544                             | 15                              | 8                                 | 1                |
| 3. Downstream transportation and distribution | 6,606,412                              | 13                              | 10                                | 1                |
| 4. Upstream transportation and distribution   | 4,593,046                              | 13                              | 8                                 | 2                |
| 5. Business travel                            | 3,221,24                               | 10                              | 8                                 | 1                |

#### Companies calculating the highest percentage of relevant categories<sup>6</sup>

|                                |         |
|--------------------------------|---------|
| Dow Chemical Company           | 12 : 12 |
| Alcoa Inc.                     | 5 : 5   |
| MeadWestvaco Corp.             | 3 : 3   |
| Praxair, Inc.                  | 3 : 3   |
| Air Products & Chemicals, Inc. | 5 : 6   |

4. Based on Question 14.1, "relevant, not calculated" and "relevant, calculated."

5. Based on Question 14.1, "relevant, calculated."

6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as "relevant, calculated," "relevant, not calculated," "not evaluated," and no response.

3. Includes companies that did not respond to question.

“Mosaic’s three-pronged approach of energy management through cogeneration, conservation and greater efficiency aims to lead the industry in reducing the energy we use and maximizing the clean energy we generate. Mosaic’s cogeneration of electricity from waste heat has greatly reduced both emissions and energy costs. In 2012 we estimate approximately 1 million tonnes of CO<sub>2</sub>e were avoided by the production of electricity at our operations through cogeneration activities.”

**The Mosaic Company**



Mosaic’s phosphates facilities produce a significant amount of electrical power through the capture of waste heat generated in sulfuric acid production.

# Telecommunications Services

Response rate

**56%** (5 of 9)

### Key industries within sector

▼ Respondents ▽ Nonrespondents

Diversified telecommunications services ▼▼▼▽

Wireless telecommunications services ▼▼▽▽▽

### New respondents

None

### Largest nonrespondents<sup>1</sup>

American Tower Corp.  
Crown Castle International Corp.  
Frontier Communications Corporation

### Meet the leaders

#### Companies listed on both CPLI and CDLI

Sprint Nextel Corporation **97 A**

#### Companies listed on CDLI

AT&T Inc. **96 B**

### Strategic advantage



**claim strategic advantage from integrating climate change into their strategy**

**“By reducing our energy use—which is our primary source of emissions—we are able to reduce costs associated with it, which ultimately benefits our bottom line. Being more resilient to natural disasters and ensuring continuity of operations makes our service more attractive to our customers and potential customers. Communicating with and educating consumers about how our products and services enable them to operate more sustainably, offers us a competitive advantage.”**

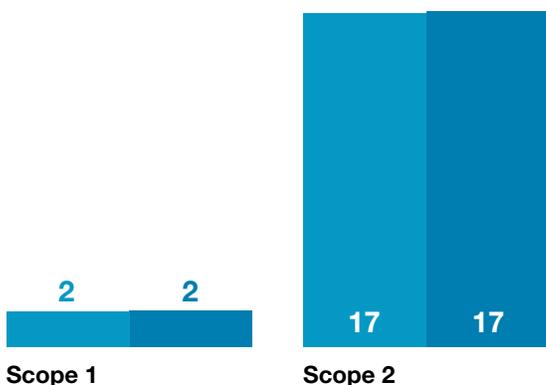
**—AT&T Inc.**

**“Reputation is built slowly, over the long term, and we see our climate change actions contributing to our long-term reputation [and] improvement.”**

**—Sprint Nextel Corporation**

### Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

▼ 2012 ▼ 2013



<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

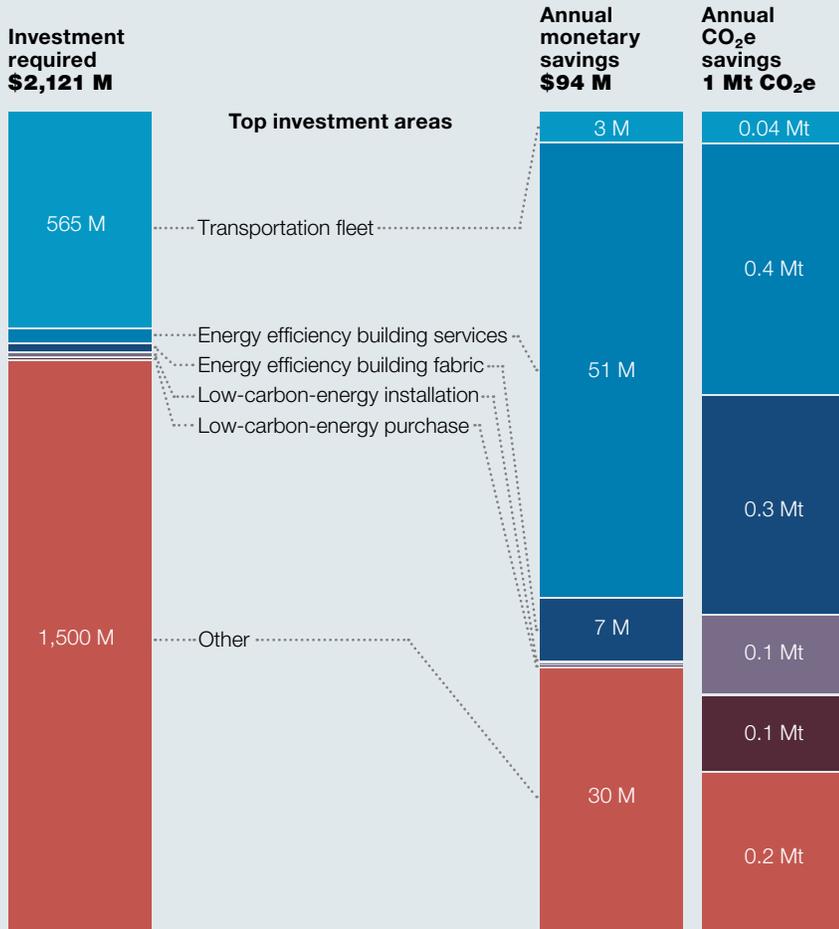
# Telecommunications Services

## Investments

### Investing to cut carbon emissions

#### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** "Other" includes network re-engineering and upgrade activity that has energy efficiency gains. Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 7%

of Telecommunications Services sector respondents' capex is invested in emissions reduction efforts. Over two-thirds of the dollars invested were toward network upgrade projects that have carbon reduction benefits.

#### Investments with high monetary and GHG savings

**AT&T Inc.:** Achieved through building and envelope and management systems; over 400 projects were implemented, including power factor improvements, set back thermostats, and shell upgrades.

**Investment reported:** \$9.7 million  
**Annual monetary savings:** \$5.1 million  
**Annual GHG reductions:** 308,545 tCO<sub>2</sub>e

**CenturyLink:** Implemented an air flow management initiative to improve energy efficiency of building fabric.

**Investment reported:** \$3.9 million  
**Annual monetary savings:** \$1.8 million  
**Annual GHG reductions:** 9,500 tCO<sub>2</sub>e

#### Sprint Nextel Corporation:

Drove energy efficiency improvements by virtualizing applications and restructuring their data center platform.

**Investment reported:** \$18,000  
**Annual monetary savings:** \$1.3 million  
**Annual GHG reductions:** 8,954 tCO<sub>2</sub>e

#### The payback

**29** total initiatives implemented this year, with the greatest number of projects falling within the 1- to 3-year payback horizon

|               | # Projects | Investment required |
|---------------|------------|---------------------|
| <1 year       | 6          | \$7 M               |
| 1–3 years     | 12         | \$45 M              |
| 4–10 years    | 1          | \$565 M             |
| 11–15 years   | 3          | \$1,501 M           |
| 16–20 years   | 2          | \$2 M               |
| >25 years     | 2          | \$0.3 M             |
| Not disclosed | 3          | \$0                 |

# Telecommunications Services

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

**Top 3 risks and opportunities across all categories:**\* ▾ Regulatory ▾ Physical ▾ Other

**Risks**

- Fuel/energy taxes and regulations
- Tropical cyclones (hurricanes and typhoons)
- Reputation

**CenturyLink:** “Since we rely on third parties to provide our data centers with power sufficient to meet our clients’ power needs, our data centers could have a limited or inadequate amount of electrical resources. These energy costs can fluctuate significantly or increase for a variety of reasons, including changes in legislation and regulation.”

**Opportunities**

- Changing consumer behavior
- Other regulatory drivers
- Induced changes in natural resources

**AT&T Inc.:** “Taking advantage of the increasing demand for products and services that enable others to reduce their emissions could open up additional areas of revenue for us.”

**Verizon Communications Inc.:** “As the climate changes and our customers change their behaviors to adapt, we believe it will lead to an increased focus on energy and resource efficiency which will generate increased demand for ICT based systems to track energy and resource use leading to increased business opportunities for Verizon.”

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

**Engaging with value chain**

**80%** of Telecommunications Services respondents engage with the value chain on climate change management



**Companies that engage with suppliers representing >50% of spend:**

|                             |            |
|-----------------------------|------------|
| Sprint Nextel Corporation   | <b>92%</b> |
| AT&T Inc.                   | <b>80%</b> |
| Verizon Communications Inc. | <b>70%</b> |

**Managing Scope 3:** Identifying what’s relevant and tracking emissions

| Top 5 most relevant categories              | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|---|--|---------------------------------|-----------------------------------|------------------|
|   |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Purchased goods and services             | 2,255,306                              | 4                               | 1                                 | —                |
| 2. Capital goods                            | 425,451                                | 4                               | 1                                 | —                |
| 3. Business travel                          | 147,217                                | 4                               | 4                                 | —                |
| 4. Employee commuting                       | 83,133                                 | 4                               | 1                                 | —                |
| 5. Upstream transportation and distribution | 45,756                                 | 4                               | 1                                 | —                |

**Companies calculating the highest percentage of relevant categories<sup>6</sup>**

|                             |               |
|-----------------------------|---------------|
| Sprint Nextel Corporation   | <b>8 : 12</b> |
| CenturyLink                 | <b>2 : 12</b> |
| Verizon Communications Inc. | <b>1 : 10</b> |
| AT&T Inc.                   | <b>1 : 11</b> |

3. Includes companies that did not respond to question.

4. Based on Question 14.1, “relevant, not calculated” and “relevant, calculated.”  
 5. Based on Question 14.1, “relevant, calculated.”  
 6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as “relevant, calculated,” “relevant, not calculated,” “not evaluated,” and no response.



“Sprint’s need to respond effectively to natural disasters such as Hurricane Sandy, the summer draught, and the heavy winter that hit the U.S. in 2012, has ensured physical risks are part of our continuity plan. Communication services are essential in disaster situations and Sprint has extensive plans for reacting to various types and degrees of disasters. Sprint’s Network Vision project is part of our long-term strategy to have a more flexible, strong, and yet more cost-effective network. The project is enabling Sprint to take down its iDEN network, which was more energy intensive than its CDMA network, and provides far better and more pervasive back-up power which will enable Sprint to be less impacted during natural disasters or increased climate stress.”

**Sprint Nextel Corporation**

Network re-engineering associated with the Network Vision project resulted in GHG reductions of 234,000 Mt CO<sub>2</sub>e in 2012.

# Utilities

Response rate

**66%** (21 of 32)

## Key industries within sector

▼ Respondents ▽ Nonrespondents



### New respondents

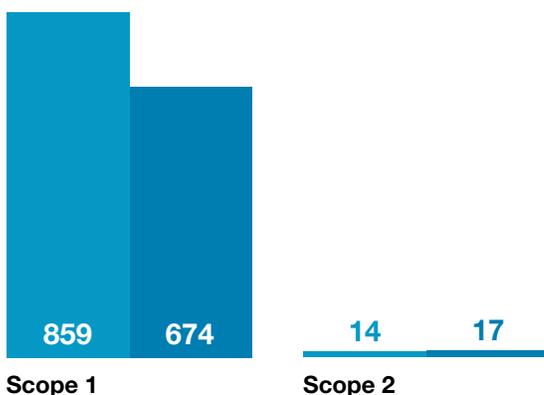
NiSource Inc.

### Largest nonrespondents<sup>1</sup>

The Southern Company  
 Dominion Resources, Inc.  
 NextEra Energy, Inc.  
 PPL Corporation  
 Public Service Enterprise Group Inc.

## Total reported emissions,<sup>2</sup> in Mt CO<sub>2</sub>e

■ 2012 ■ 2013



## Meet the leaders

### Companies listed on both CPLI and CDLI

|                     |       |
|---------------------|-------|
| Entergy Corporation | 100 A |
| Exelon Corporation  | 98 A  |

### Companies listed on CPLI

|                      |      |
|----------------------|------|
| Pepco Holdings, Inc. | 94 A |
|----------------------|------|

### Companies listed on CDLI

|               |      |
|---------------|------|
| Sempra Energy | 97 B |
|---------------|------|

## Strategic advantage



**claim strategic advantage from integrating climate change into their strategy**

**“Entergy’s proactive leadership on climate change** has resulted in an electric generation portfolio that is top quartile low CO<sub>2</sub> emitting (compared with the 100 largest utilities in the US) thereby providing a competitive advantage in any current or future carbon constrained economy.[...] In addition, this leadership position provides the company with credibility amongst the highest circles of advocacy in the country and world. Entergy leverages this credibility to advocate for sensible immediate action on climate change and adaptation.”

**– Entergy Corporation**

**“Sempra’s low-carbon business model offers several** advantages for the company. As compared to other energy companies with portfolios that include higher-emissions generating sources, such as coal, and which are just beginning to employ energy efficiency measures, we are well positioned to deal with regulatory and other low-carbon initiatives. Because we are focused on natural gas and renewable sources of energy our emissions rate (CO<sub>2</sub> per MW-hour) is well below the U.S. national average. We are also uniquely positioned to meet needs for renewable energy development given our experience and geographic footprint in areas with high renewable energy potential.”

**– Sempra Energy**

<sup>1</sup> Based on market capitalization data available from Bloomberg as of May 30, 2013.

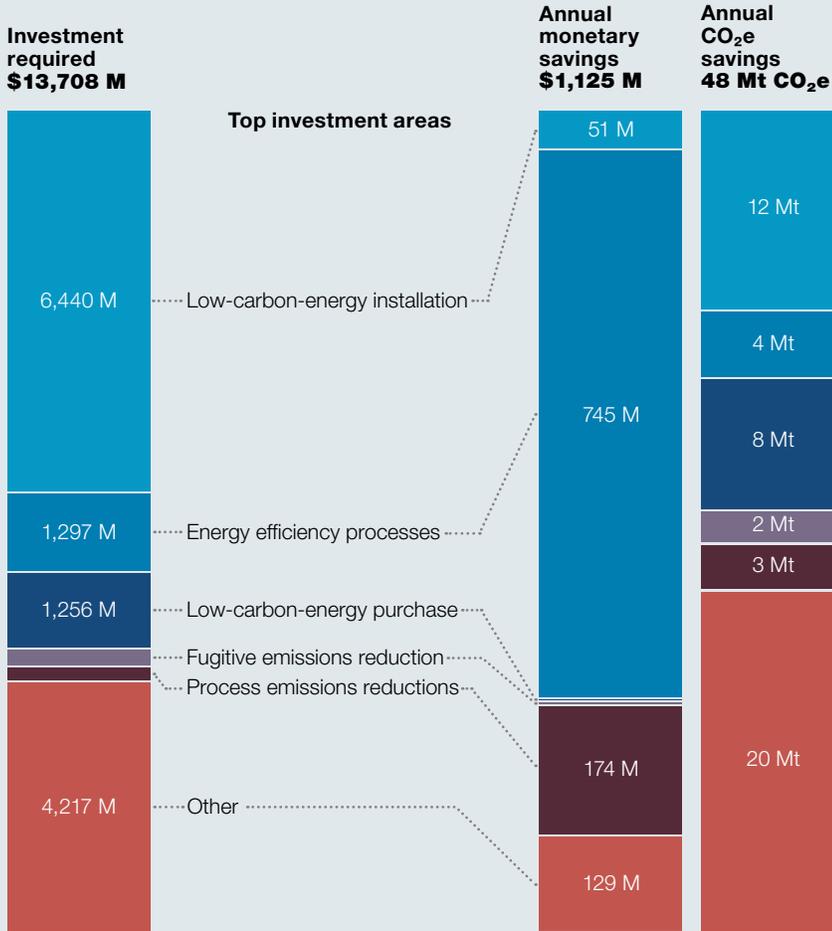
<sup>2</sup> These figures represent annual emissions disclosed in 2013 responses, irrespective of changes in number of responding companies.

# Utilities Investments

## Investing to cut carbon emissions

### Driving emissions reductions

2013 investments made and savings unlocked



**Note:** "Other" includes transmission line upgrades, R&D, customer energy efficiency programs, carbon offsets and carbon sequestration projects. Data are drawn from question 3.3b. Figures reflect total reported investment and savings. Some companies do not provide quantitative data for all disclosed projects. Thus, any implied relationship between investment, monetary savings, and CO<sub>2</sub>e reductions, as a sector, may be limited. For deeper analyses, refer to company-specific information.

# 23%

of Utilities sector respondents' capex is invested in emissions reduction efforts. Over half of the invested dollars were toward projects to purchase or install low-carbon energy.

### Investments with high monetary and GHG savings

**Ameren Corporation:** Demand-side management for electricity and natural gas, which help reduce exposure related to GHGs while improving relationships with customers. The electricity energy efficiency program includes education programs, installation of efficient heating and air-conditioning systems, home energy audits, low-income weatherization, programmable thermostat programs, and others. The natural gas energy efficiency program provides incentives to customers when they purchase specific energy efficiency gas equipment.

**Investment reported:** \$70 million  
**Annual monetary savings:** \$35 million  
**Annual GHG reductions:** 409,268 tCO<sub>2</sub>e

**Exelon Corporation:** Delivery companies—ComEd, PECO, and BGE—launched and implemented a portfolio of leading-edge energy efficiency and demand response programs that helped customers reduce their energy consumption by 4.7 million MWh.

**Investment reported:** \$967 million  
**Annual monetary savings:** \$690 million  
**Annual GHG reductions:** 2,559,000 tCO<sub>2</sub>e

**Pepco Holdings, Inc.:** Numerous residential energy efficiency programs for consumers, including Pepco's Quick Home Energy Check-up Program: offers a quick and easy assessment of a home's energy usage as well as the installation of products such as CFLs and Smart Strips at no additional cost to the customer. In 2012, the program ramped up significantly, with 31,097 customers participating.

**Investment reported:** \$83.3 million  
**Annual monetary savings:** \$51.2 million  
**Annual GHG reductions:** 183,301 tCO<sub>2</sub>e

### The payback

**110** total initiatives implemented this year, with the greatest number of projects falling within the 4- to 10-year payback horizon

|               | # Projects | Investment required |
|---------------|------------|---------------------|
| <1 year       | 8          | \$1,300 M           |
| 1–3 years     | 16         | \$479 M             |
| 4–10 years    | 18         | \$4,964 M           |
| 11–15 years   | 5          | \$0.5 M             |
| 16–20 years   | 5          | \$248 M             |
| 21–25 years   | 1          | \$250 M             |
| >25 years     | 6          | \$1,445 M           |
| Not disclosed | 51         | \$5,022 M           |

# Utilities

## Risks, opportunities, and the value chain

### Preparing for the impacts of climate change

#### Top 3 risks and opportunities across all categories:\* Regulatory Physical Other

##### Risks

- Air pollution limits
- Carbon taxes
- Change in precipitation extremes and droughts

**Entergy Corporation:** “Changes to precipitation extremes and droughts are a potential risk to Entergy because of our need for cooling water to produce electricity and discharge permit limits tied to river flows or levels. Changes to precipitation patterns can impact where cooling water is available and can impact our ability to operate due to flooding events.”

##### Opportunities

- Changing consumer behavior
- Other regulatory drivers
- Cap-and-trade schemes

**Duke Energy Corporation:** “Duke Energy has an internal group dedicated to oversee our efforts to prepare for widespread customer adoption of electric vehicles. These efforts include working with manufacturers of electric vehicles, batteries, and charging stations to expand the adoption of plug-in electric vehicles.”

**NRG Energy, Inc.:** “A potential opportunity is legislation or policies that enhance investment and development of the new clean technologies, products, services, and customer demand for NRG’s products and services.”

\* Most commonly identified as medium to high impact.

### Addressing global climate change through multidimensional engagement

#### Engaging with value chain

**80%** of Utilities respondents engage with the value chain on climate change management



#### Companies that engage with suppliers representing >50% of spend:

|                                   |      |
|-----------------------------------|------|
| Exelon Corporation                | 100% |
| Ameren Corporation                | 75%  |
| Pinnacle West Capital Corporation | 75%  |
| PG&E Corporation                  | 65%  |

#### Managing Scope 3: Identifying what’s relevant and tracking emissions

| Top 5 most relevant categories                                       | 2013 emissions (in tCO <sub>2</sub> e) | Number of companies that:       |                                   |                  |
|--|--|---------------------------------|-----------------------------------|------------------|
|  |  | indicated relevant <sup>4</sup> | calculated emissions <sup>5</sup> | did not evaluate |
| 1. Fuel-and-energy-related activities (not included in Scope 1 or 2) | 153,830,908                            | 11                              | 7                                 | 2                |
| 2. Purchased goods and services                                      | 10,615,675                             | 8                               | 1                                 | 3                |
| 3. Upstream transportation and distribution                          | 1,560,999                              | 8                               | 2                                 | 2                |
| 4. Business travel   | 72,883                                 | 10                              | 10                                | —                |
| 5. Waste generated in operations                                     | 3,726                                  | 8                               | 3                                 | 2                |

#### Companies calculating the highest percentage of relevant categories<sup>6</sup>

|                     |       |
|---------------------|-------|
| Exelon Corporation  | 5 : 5 |
| Entergy Corporation | 4 : 5 |
| Sempra Energy       | 2 : 3 |
| PG&E Corporation    | 4 : 7 |
| Xcel Energy Inc.    | 3 : 7 |

4. Based on Question 14.1, “relevant, not calculated” and “relevant, calculated.”  
 5. Based on Question 14.1, “relevant, calculated.”  
 6. Ratio based on number of relevant categories a company calculates compared with the number of categories disclosed as “relevant, calculated,” “relevant, not calculated,” “not evaluated,” and no response.

3. Includes companies that did not respond to question.



“Exelon’s executive team recognizes global climate change as a compelling issue and that the electric industry has a unique opportunity to create business value while working to transition the US to a clean energy future.[...] In 2012, Exelon completed six wind projects adding 404 MW of wind capacity. In addition, Exelon’s Antelope Valley Solar Ranch One, which is under development in California, brought online Block 3 of the project (31 MWs) in December 2012. The 230-megawatt solar photovoltaic project is expected to become fully operational in late 2013. Once completed, its power will avoid the production of approximately 140,000 metric tons of CO<sub>2</sub> per year. In total, Exelon Generation’s owned renewables portfolio currently includes 1,299 MW of wind power, 1,935 MW of hydro, 66 MW of landfill gas, and 164 MW of solar photovoltaic power, making Exelon Generation one of the largest wholesale producers of renewable energy and marketers of RECs.”

**Exelon Corporation**

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# Appendixes

## **Scoring**

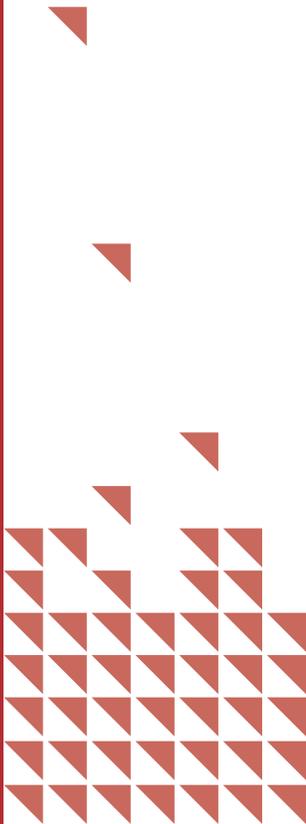
The 2013 score is composed of the disclosure score number and performance score letter. Only companies that scored higher than 50 for disclosure were scored for performance.

## **Scope 3 progress**

The numbers in the Scope 3 progress column are based on question 14.1 and reflect company progress on calculating potentially relevant categories. Numerator includes categories designated as “relevant, calculated”; denominator includes “relevant, not calculated,” “relevant, calculated,” “not evaluated,” and no response.

## **Verification/assurance**

Verification/assurance approved; companies reported that they have verification complete or under way, with last year’s certificate available, and they were awarded full points available for their statement.



# Appendix I Table of scores, emissions, and company detail by sector

| Company                                   | 2013 score | 2012 score | Scope 1 emissions | Scope 2 emissions | Scope 3 progress            | Target(s) reported | Verification/assurance |
|---|------------|------------|-------------------|-------------------|-----------------------------|--------------------|------------------------|
| <b>Consumer Discretionary</b>             |            |            |                   |                   |                             |                    |                        |
| Abercrombie & Fitch Co.                   | 93 B       | 93 B       | 6,754             | 120,384           | 0 : 5                       | abs                | ①②③                    |
| ▼ <b>Best Buy Co., Inc.</b>               | 98 A       | 96 A       | 209,179           | 542,121           | 3 : 5                       | abs                | ①②③                    |
| Big Lots, Inc.                            | 28         | 15         | —                 | 408,699           | 0 : 15                      |                    |                        |
| Carnival Corporation                      | 83 C       | 84 B       | 10,819,814        | 57,585            | 4 : 5                       | int                | ①②                     |
| CBS Corp.                                 | 24         | 33         | —                 | —                 | 0 : 15                      |                    |                        |
| Darden Restaurants, Inc.                  | 74 C       | 80 C       | 347,796           | 719,949           | 1 : 15                      | int                |                        |
| Delphi Automotive Plc.                    | 78 C       | X          | 65,789            | 592,662           | 2 : 15                      | int                |                        |
| DIRECTV                                   | 91 B       | 91 B       | 106,060           | 88,145            | 5 : 14                      | abs                | ①②③                    |
| eBay Inc.                                 | 75 D       | 72 D       | 14,374            | 225,952           | 1 : 11                      | abs, int           |                        |
| Expedia, Inc.                             | 63 E       | 62 E       |                   |                   | Response not public         |                    |                        |
| Family Dollar Stores, Inc.                | 75 D       | 62 E       |                   |                   | Response not public         |                    |                        |
| Ford Motor Company                        | 72 C       | 72 C       | 1,698,799         | 3,440,338         | 0 : 1                       | int                | ①                      |
| Gannett Co., Inc.                         | 24         | NR         |                   |                   | Response not public         |                    |                        |
| Gap Inc.                                  | 77 B       | 78 B       | 18,897            | 429,865           | 2 : 11                      | abs                |                        |
| Goodyear Tire & Rubber Company            | 78 B       | 81 C       | 1,229,586         | 1,680,202         | 1 : 12                      | int                |                        |
| H&R Block Inc.                            | 27         | 18         | —                 | —                 | 0 : 15                      |                    |                        |
| Harman International Industries Inc.      | 72 D       | NR         | 2,602             | 38,552            | 0 : 13                      | int                |                        |
| Hasbro, Inc.                              | 81 B       | 80 B       | 5,985             | 17,422            | 2 : 14                      | abs                | ①②③                    |
| ▼ <b>The Home Depot, Inc.</b>             | 99 A-      | 95 B       | 250,224           | 2,529,646         | 1 : 7                       | abs, int           | ①②③                    |
| Interpublic Group of Companies, Inc.      | 21         | 17         |                   |                   | Response not public         |                    |                        |
| J.C. Penney Company, Inc.                 | 76 B       | NR         | 81,624            | 962,061           | 1 : 15                      | int                | ①②                     |
| Johnson Controls                          | 94 A-      | 92 B       | 866,181           | 1,465,658         | 8 : 12                      | abs, int           | ①②③                    |
| Kohl's Corporation                        | 81 B       | 76 C       | 22,784            | 866,703           | 1 : 11                      | abs, int           | ①②                     |
| Leggett & Platt, Inc.                     | 22         | 27         |                   |                   | Response not public         |                    |                        |
| Limited Brands, Inc.                      | 80 B       | 79 C       | 29,939            | 286,083           | 2 : 15                      | abs                | ①②③                    |
| Lowe's Companies, Inc.                    | 85 D       | 83 C       | 303,721           | 2,552,740         | 1 : 14                      |                    |                        |
| Macy's, Inc.                              | 23         | 19         | —                 | —                 | 0 : 15                      |                    |                        |
| Marriott International, Inc.              | 81 B       | 82 B       | 666,436           | 2,875,456         | 2 : 6                       | int                |                        |
| Mattel, Inc.                              | 56 D       | 46         | 12,669            | 184,008           | 2 : 15                      | int                |                        |
| McDonald's Corporation                    | 71 D       | 63 D       |                   |                   | Response not public         |                    |                        |
| McGraw-Hill Companies, Inc.               | 95 B       | 90 B       | 29,201            | 84,123            | 2 : 6                       | abs                | ①②③                    |
| Newell Rubbermaid Inc.                    | 57 D       | 43         | 21,533            | 279,227           | 1 : 15                      | int                |                        |
| ▼ <b>News Corporation</b>                 | 97 A-      | 95 B       | 62,360            | 376,022           | 6 : 6                       | abs, int           | ①②③                    |
| NIKE Inc.                                 | 70 D       | 69 D       |                   |                   | Response not public         |                    |                        |
| Nordstrom, Inc.                           | 88 C       | 91 C       |                   |                   | Response not public         |                    |                        |
| Omnicom Group Inc.                        | 59 D       | 55 D       | 67,481            | 88,163            | 1 : 11                      | abs                |                        |
| Scripps Networks Interactive Inc.         | 16         | 15         | —                 | —                 | 0 : 15                      |                    |                        |
| Sherwin-Williams Company                  | 72 C       | 71 D       | 241,734           | 280,996           | 0 : 14                      | int                |                        |
| Staples, Inc.                             | 74 C       | 64 B       | 108,810           | 70,735            | 1 : 12                      | abs                |                        |
| Starbucks Corporation                     | 86 C       | 81 B       | 239,972           | 792,644           | 1 : 12                      | int                | ①②                     |
| Starwood Hotels & Resorts Worldwide, Inc. | 85 B       | 87 B       | 487,105           | 2,245,682         | 2 : 9                       | int                | ①②③                    |
| Target Corporation                        | 91 B       | 87 B       | 527,047           | 2,489,866         | 1 : 11                      | int                | ①②                     |
| Tiffany & Co.                             | 91 C       | 82 C       | 2,537             | 41,974            | 0 : 11                      |                    | ①②                     |
| Time Warner Inc.                          | AQL        | 48         |                   |                   | Answered questionnaire late |                    |                        |
| ▼ <b>TJX Companies, Inc.</b>              | 98 B       | 97 B       | 63,084            | 686,955           | 0 : 4                       | int                | ①②③                    |
| VF Corporation                            | 87 B       | 86 B       | 85,950            | 168,660           | 2 : 8                       | int                | ①②                     |
| Viacom Inc.                               | 60 D       | 21         |                   |                   | Response not public         |                    |                        |
| Walt Disney Company                       | 78 C       | 53 D       | 867,353           | 899,027           | 1 : 9                       | abs                |                        |
| Whirlpool Corporation                     | 53 D       | 57 C       | 344,805           | 518,107           | 2 : 15                      | abs                |                        |
| Wyndham Worldwide Corporation             | 84 B       | 91 B       | 94,553            | 278,741           | 1 : 15                      | abs, int           | ①②③                    |
| Yum! Brands, Inc.                         | 92 B       | 85 B       | 156,510           | 2,377,372         | 1 : 14                      | abs                | ①②                     |

## Information provided, but did not answer questionnaire

Bed Bath & Beyond Inc.  
Coach, Inc.  
Comcast Corporation

## Declined to participate

AutoNation, Inc.  
BorgWarner  
Discovery Communications, Inc.  
Fossil, Inc.

## No response

Amazon.com Inc.  
Apollo Group, Inc.  
AutoZone, Inc.  
Cablevision Systems Corporation  
CarMax Inc.  
Chipotle Mexican Grill  
D.R. Horton, Inc.  
Dollar General Corporation  
Dollar Tree Inc.  
GameStop Corp.  
Garmin Ltd.  
Genuine Parts Company  
Harley-Davidson, Inc.  
International Game Technology  
Kinder Morgan Inc.  
Lennar Corporation  
Netflix, Inc.  
O'Reilly Automotive  
Petsmart, Inc.  
Polo Ralph Lauren Corporation  
Priceline.Com Inc.  
Pulte Homes Inc.  
Ross Stores Inc.  
Time Warner Cable Inc.  
Tripadvisor Inc.  
Urban Outfitters, Inc.  
Washington Post Company  
Wynn Resorts, Ltd.

## Legend

▼ CDLI leader  
▼ CPL leader

AQL answered questionnaire late  
NR no response  
— information not available  
X company was not on S&P 500

## Targets

abs absolute  
int intensity

## Verification/assurance

① Scope 1  
② Scope 2  
③ Scope 2

## Appendix I Table of scores, emissions, and company detail by sector

| Company                               | 2013 score | 2012 score | Scope 1 emissions | Scope 2 emissions | Scope 3 progress | Target(s) reported  | Verification/assurance |
|---------------------------------------|------------|------------|-------------------|-------------------|------------------|---------------------|------------------------|
| <b>Consumer Staples</b>               |            |            |                   |                   |                  |                     |                        |
| Altria Group, Inc.                    | 75 C       | 71 C       | 283,926           | 236,169           | 0 : 14           | abs                 |                        |
| Avon Products, Inc.                   | 86 B       | 52 E       | 66,638            | 87,260            | 1 : 9            | abs                 |                        |
| ▼ <b>Brown-Forman Corporation</b>     | 93 A       | 93 B       | 91,401            | 64,742            | 1 : 11           | int                 | 1 2 3                  |
| Campbell Soup Company                 | 79 B       | 78 C       | 381,322           | 367,084           | 1 : 15           | abs, int            |                        |
| Clorox Company                        | 82 B       | 87 B       | 69,481            | 255,973           | 2 : 15           | int                 | 1 2                    |
| The Coca-Cola Company                 | 90 A-      | 96 B       | 2,551,626         | 1,138,377         | 5 : 14           | abs, int            | 1 2 3                  |
| Coca-Cola Enterprises, Inc.           | 90 A-      | 92 B       | 124,399           | 89,882            | 10 : 10          | abs, int            | 1 2 3                  |
| ▼ <b>Colgate-Palmolive Company</b>    | 99 B       | 91 B       | 232,574           | 435,061           | 1 : 5            | int                 | 1 2 3                  |
| ConAgra Foods, Inc.                   | 91 B       | 93 B       | 909,671           | 1,002,250         | 3 : 10           | int                 | 1 2 3                  |
| Constellation Brands, Inc.            | 85 B       | 72 C       | 67,717            | 37,914            | 3 : 3            | int                 | 1 2                    |
| Costco Wholesale Corporation          | 45         | 39         | 362,802           | 1,197,983         | 0 : 15           |                     |                        |
| CVS Caremark Corporation              | 92 B       | 82 D       | 201,000           | 1,495,000         | 0 : 14           | int                 | 1 2                    |
| Dean Foods Company                    | 89 B       | 88 B       | 759,423           | 673,338           | 2 : 7            | abs, int            |                        |
| Dr Pepper Snapple Group Inc.          | 88 B       | 60 D       | 252,616           | 159,917           | 2 : 12           | int                 | 1 2 3                  |
| ▼ <b>Estée Lauder Companies Inc.</b>  | 96 A       | 85 C       | 31,490            | 58,204            | 3 : 6            | int                 | 1 2 3                  |
| General Mills Inc.                    | 78 B       | 68 C       | 259,400           | 737,000           | 2 : 14           | int                 | 1                      |
| H.J. Heinz Company                    | 27         | 89 B       |                   |                   |                  | Response not public |                        |
| The Hershey Company                   | 82 B       | 80 C       | 115,382           | 257,032           | 2 : 15           | int                 | 1 2                    |
| Hormel Foods                          | 68 D       | 56 D       | 777,845           | 668,484           | 0 : 11           | abs, int            |                        |
| The J.M. Smucker Company              | 88 B       | 88 B       | 138,024           | 219,041           | 3 : 13           | int                 | 1 2                    |
| Kellogg Company                       | 84 B       | 81 C       | 536,069           | 671,729           | 3 : 11           | int                 | 1                      |
| Kimberly-Clark Corporation            | 72 C       | 74 D       | 2,461,675         | 2,967,804         | 2 : 15           | abs                 | 1 2 3                  |
| Kraft Foods                           | 81 B       | 84 B       | 477,813           | 695,225           | 9 : 9            | int                 | 1 2 3                  |
| Kroger                                | 53 D       | 52 D       | 1,889,971         | 4,215,860         | 0 : 15           |                     |                        |
| McCormick & Company, Inc.             | 83 C       | 68 C       | 15,753            | 59,138            | 0 : 15           | int                 |                        |
| Mead Johnson Nutrition Company        | 85 B       | 53 D       | 58,344            | 119,975           | 0 : 14           | int                 | 1 2                    |
| ▼ <b>Molson Coors Brewing Company</b> | 97 A-      | 89 B       | 380,118           | 466,599           | 9 : 12           | abs, int            | 1 2 3                  |
| Mondelēz International Inc.           | 91 B       | X          | 1,075,761         | 954,755           | 9 : 9            | int                 | 1 2 3                  |
| PepsiCo, Inc.                         | 94 B       | 94 B       | 3,854,784         | 1,928,490         | 4 : 8            | abs                 | 1 2 3                  |
| ▼ <b>Philip Morris International</b>  | 97 B       | 91 A       | 441,953           | 433,892           | 6 : 11           | int                 | 1 2                    |
| Procter & Gamble Company              | 47         | 51 D       | 2,799,000         | 3,028,000         | 7 : 15           | int                 |                        |
| Reynolds American Inc.                | 70 B       | 63 D       | 107,093           | 167,402           | 0 : 15           | abs                 | 1 2                    |
| Safeway Inc.                          | 72 C       | 59 B       | 1,655,023         | 2,148,512         | 0 : 15           |                     | 1 2                    |
| Sysco Corporation                     | 66 C       | NR         | 788,200           | 336,857           | 0 : 15           |                     |                        |
| Walgreen Company                      | 86 C       | 79 C       |                   |                   |                  | Response not public |                        |
| Wal-Mart Stores, Inc.                 | 94 A-      | 86 B       | 5,605,099         | 15,581,135        | 4 : 9            | abs, int            | 1 2 3                  |
| Whole Foods Market, Inc.              | 62 C       | 60 E       | 314,141           | 403,239           | 2 : 15           |                     |                        |
| <b>Energy</b>                         |            |            |                   |                   |                  |                     |                        |
| Anadarko Petroleum Corporation        | 75 C       | 70 D       | 5,056,818         | 535,843           | 1 : 15           |                     | 1                      |
| Apache Corporation                    | 70 C       | 64 D       | 10,766,000        | 1,314,000         | 0 : 15           | abs                 |                        |
| Baker Hughes Inc.                     | 90 B       | 66 D       | 516,000           | 425,000           | 2 : 7            | int                 | 1 2 3                  |
| ▼ <b>Chevron Corporation</b>          | 97 A-      | 88 B       | 58,559,220        | 3,849,319         | 1 : 1            | abs                 | 1 2 3                  |
| ConocoPhillips                        | 83 B       | 81 C       | 24,171,000        | 1,638,000         | 3 : 3            | abs, int            |                        |
| CONSOL Energy Inc.                    | 78 C       | 46         | 11,854,060        | 2,171,960         | 1 : 14           |                     | 1 2                    |
| Devon Energy Corporation              | 86 B       | 76 C       | 7,596,657         | 1,087,905         | 1 : 13           | int                 | 1                      |
| Exxon Mobil Corporation               | 80 B       | 75 C       | 132,000,000       | 14,000,000        | 1 : 15           | int                 | 1 2 3                  |
| Halliburton Company                   | 65 D       | 72 D       | 4,211,808         | 839,363           | 1 : 15           | int                 |                        |
| ▼ <b>Hess Corporation</b>             | 97 B       | 97 B       | 7,409,486         | 584,695           | 3 : 3            | abs, int            | 1 2 3                  |
| Newfield Exploration Company          | 84 C       | DP         | 641,984           | 27,363            | 1 : 11           |                     |                        |
| Noble Energy, Inc.                    | 76 C       | 75 C       | 2,078,600         | 61,630            | 0 : 12           |                     |                        |
| Occidental Petroleum Corporation      | 61 E       | 60 D       | 14,270,000        | 5,600,000         | 0 : 14           |                     |                        |
| Rowan Companies Inc.                  | 28         | 29         | —                 | —                 | 0 : 15           |                     |                        |
| Schlumberger Ltd.                     | 83 C       | 92 C       | 2,200,000         | 550,000           | 2 : 9            | int                 |                        |
| ▼ <b>Spectra Energy Corp</b>          | 98 A       | 95 B       | 8,381,680         | 608,390           | 8 : 9            | abs, int            | 1 2                    |

### Information provided, but did not answer questionnaire

Beam Inc.  
Tyson Foods, Inc.

### No response

Archer Daniels Midland  
Lorillard Inc.  
Monster Beverage Corporation

### Information provided, but did not answer questionnaire

EOG Resources, Inc.  
Marathon Petroleum Corporation  
Peabody Energy Corporation  
Valero Energy Corporation

### Declined to participate

Cameron International Corporation  
Denbury Resources Inc.  
Noble Corporation  
Pioneer Natural Resources  
QEP Resources  
Tesoro Corporation

### No response

Cabot Oil & Gas Corporation  
Chesapeake Energy Corporation  
Diamond Offshore Drilling  
Enco International Inc.  
FMC Technologies  
Helmerich & Payne  
Kinder Morgan Inc.  
Marathon Oil Corporation  
Murphy Oil Corporation  
Nabors Industries Ltd.  
National Oilwell Varco, Inc.  
Phillips 66  
Range Resources Corp.  
Southwestern Energy  
Williams Companies, Inc.  
Wpx Energy

## Appendix I Table of scores, emissions, and company detail by sector

| Company                                       | 2013 score | 2012 score | Scope 1 emissions | Scope 2 emissions | Scope 3 progress | Target(s) reported  | Verification/assurance |
|---|------------|------------|-------------------|-------------------|------------------|---------------------|------------------------|
| <b>Financials</b>                             |            |            |                   |                   |                  |                     |                        |
| ▼ ACE Limited                                 | 93 A       | 94 A       | 12,912            | 39,791            | 4 : 10           | int                 | ① ② ③                  |
| AFLAC Inc.                                    | 85 B       | 82 B       | 3,884             | 18,536            | 3 : 8            | abs, int            | ① ②                    |
| ▼ Allstate Corporation                        | 96 B       | 92 A       | 40,796            | 150,401           | 3 : 14           | abs                 | ① ②                    |
| American Express                              | 87 C       | 89 B       | 23,371            | 142,667           | 1 : 15           | abs                 |                        |
| American International Group, Inc.            | 62 D       | 14         |                   |                   |                  | Response not public |                        |
| Ameriprise Financial, Inc.                    | 0          | DP         | —                 | —                 | 0 : 15           |                     |                        |
| Aon plc.                                      | 65 C       | 64 D       | 2,691             | 11,242            | 1 : 15           | abs, int            | ① ② ③                  |
| Assurant, Inc.                                | 43         | 36         |                   |                   |                  | Response not public |                        |
| ▼ Bank of America                             | 98 A       | 93 A       | 116,666           | 1,421,829         | 10 : 11          | abs                 | ① ② ③                  |
| BlackRock                                     | 79 C       | 55 E       |                   |                   |                  | Response not public |                        |
| ▼ BNY Mellon                                  | 100 A      | 90 B       | 9,513             | 208,926           | 8 : 8            | abs                 | ① ② ③                  |
| Capital One Financial                         | 71 C       | 67 D       | 14,501            | 194,433           | 1 : 15           | abs                 |                        |
| ▼ CBRE Group, Inc.                            | 98 C       | 64 E       | 35,214            | 31,082            | 7 : 10           | abs                 | ① ② ③                  |
| Charles Schwab Corporation                    | 55 E       | 50 E       |                   |                   |                  | Response not public |                        |
| The Chubb Corporation                         | 52 D       | 58 D       | 1,129             | 10,133            | 0 : 10           |                     |                        |
| Cincinnati Financial Corporation              | 71 C       | 54 E       | 16,989            | 19,420            | 0 : 15           |                     |                        |
| Citigroup Inc.                                | 95 B       | 80 B       | 35,570            | 993,687           | 3 : 8            | abs                 | ① ②                    |
| ▼ Comerica Inc.                               | 94 A       | 91 B       | 6,950             | 74,784            | 4 : 9            | abs                 | ① ② ③                  |
| Fifth Third Bancorp                           | 86 D       | 84 D       | 12,926            | 156,014           | 1 : 15           |                     | ① ②                    |
| First Horizon National Corporation            | 15         | 12         | —                 | —                 | 0 : 15           |                     |                        |
| Franklin Resources, Inc.                      | 86 C       | 79 C       | 8,175             | 29,552            | 1 : 8            |                     |                        |
| Genworth Financial, Inc.                      | 71 D       | 59 E       | 165               | 13,938            | 5 : 6            |                     |                        |
| ▼ Goldman Sachs Group Inc.                    | 98 A       | 95 B       | 14,559            | 276,815           | 7 : 8            | abs                 | ① ② ③                  |
| ▼ The Hartford Financial Services Group, Inc. | 94 A       | 92 B       | 25,770            | 57,489            | 2 : 7            | abs                 | ① ② ③                  |
| ▼ HCP, Inc.                                   | 97 A-      | 77 D       | 28,940            | 216,887           | 1 : 8            | abs, int            | ① ②                    |
| Health Care REIT, Inc.                        | 88 D       | NR         | 5,665             | 118,372           | 0 : 8            |                     | ① ② ③                  |
| ▼ Host Hotels & Resorts, Inc.                 | 93 A       | 86 C       | 121,572           | 463,245           | 1 : 8            | int                 | ① ②                    |
| Huntington Bancshares Inc.                    | 69 C       | 53 D       | 8,488             | 76,573            | 0 : 15           | int                 | ① ②                    |
| Invesco Ltd.                                  | 65 D       | 82 D       | 446               | 14,088            | 2 : 15           | int                 |                        |
| JPMorgan Chase & Co.                          | 91 B       | 89 B       | 83,343            | 1,219,748         | 1 : 9            | abs                 | ① ②                    |
| ▼ KeyCorp                                     | 96 A       | 89 B       | 12,584            | 71,662            | 2 : 10           | abs                 | ① ② ③                  |
| Kimco Realty                                  | 83 C       | 48         | 3,420             | 67,476            | 2 : 5            | abs                 |                        |
| ▼ Legg Mason, Inc.                            | 97 B       | 85 C       | 521               | 6,014             | 1 : 4            | abs                 | ① ②                    |
| M&T Bank Corporation                          | 69 D       | 71 C       |                   |                   |                  | Response not public |                        |
| ▼ Marsh & McLennan Companies, Inc.            | 98 B       | 91 B       | 3,429             | 97,423            | 1 : 8            | abs                 | ① ②                    |
| MetLife, Inc.                                 | 92 A-      | 84 C       |                   |                   |                  | Response not public |                        |
| Moody's Corporation                           | 21         | 25         | —                 | —                 | 0 : 15           |                     |                        |
| ▼ Morgan Stanley                              | 96 A       | 92 B       | 13,757            | 330,747           | 2 : 11           | int                 | ① ②                    |
| NASDAQ OMX Group, Inc.                        | 56 D       | AQL        | —                 | 61,217            | 1 : 11           |                     |                        |
| Northern Trust                                | 94 B       | 69 D       | 2,535             | 48,267            | 2 : 7            | int                 | ① ② ③                  |
| ▼ NYSE Euronext                               | 99 A       | 96 A       | 2,594             | 77,407            | 7 : 7            | abs, int            | ① ② ③                  |
| PNC Financial Services Group, Inc.            | 89 B       | 84 C       | 47,606            | 398,414           | 3 : 10           | abs                 | ① ② ③                  |
| ▼ Principal Financial Group, Inc.             | 95 A       | 84 C       | 5,800             | 60,176            | 2 : 7            | abs                 | ① ②                    |
| Prologis                                      | 83 B       | 75 D       | 1,907             | 5,827             | 1 : 10           | abs                 | ① ②                    |
| Prudential Financial, Inc.                    | 63 C       | 47         | 5,090             | 70,613            | 1 : 15           | abs, int            |                        |
| ▼ Simon Property Group                        | 98 B       | 92 B       | 21,854            | 496,006           | 2 : 5            | abs                 | ① ② ③                  |
| State Street Corporation                      | 87 C       | 71 C       | 10,009            | 98,756            | 1 : 2            | int                 | ① ② ③                  |
| T. Rowe Price                                 | 81 C       | 76 D       | 624               | 32,350            | 1 : 9            |                     |                        |
| The Travelers Companies, Inc.                 | 63 C       | 68 C       | 35,633            | 48,175            | 0 : 15           |                     |                        |
| U.S. Bancorp                                  | 78 C       | 77 C       | 38,055            | 370,672           | 4 : 11           |                     |                        |
| ▼ Unum Group                                  | 97 A       | 87 C       | 7,186             | 28,817            | 1 : 8            | abs                 | ① ② ③                  |
| Ventas Inc.                                   | 85 C       | AQL        | 43,381            | 314,379           | 0 : 10           | abs                 |                        |
| ▼ Wells Fargo & Company                       | 96 A       | 95 A       | 93,904            | 1,333,372         | 7 : 11           | abs                 | ① ② ③                  |
| Weyerhaeuser Company                          | 79 B       | 71 C       | 1,434,076         | 1,235,204         | 1 : 4            | abs                 | ① ②                    |
| XL Group plc.                                 | 44         | 45         |                   |                   |                  | Response not public |                        |

### Information provided, but did not answer questionnaire

Discover Financial Services  
Lincoln National Corporation

### Declined to participate

Apartment Investment and Management Co.  
AvalonBay Communities  
Equity Residential  
Loews Corporation  
Progressive Corporation  
SunTrust Banks, Inc.  
Zions Bancorporation

### No response

BB&T Corporation  
Berkshire Hathaway  
Boston Properties  
CME Group Inc.  
E TRADE Financial Corporation  
Federated Investors Inc.  
Hudson City Bancorp, Inc.  
IntercontinentalExchange Inc.  
Leucadia National Corp.  
People's United Financial, Inc.  
Public Storage  
Regions Financial Corporation  
SLM Corporation  
Torchmark Corporation  
Vornado Realty Trust

### Legend

- ▼ CDLI leader
- ▼ CPLI leader

AQL answered questionnaire late  
NR no response  
DP declined to participate  
— information not available  
X company was not on S&P 500

### Targets

abs absolute  
int intensity

### Verification/assurance

① Scope 1  
② Scope 2  
③ Scope 2

## Appendix I Table of scores, emissions, and company detail by sector

| Company                          | 2013 score | 2012 score | Scope 1 emissions   | Scope 2 emissions | Scope 3 progress | Target(s) reported | Verification/assurance |  |
|----------------------------------|------------|------------|---------------------|-------------------|------------------|--------------------|------------------------|--|
| <b>Health Care</b>               |            |            |                     |                   |                  |                    |                        |  |
| Abbott Laboratories              | 84 B       | 80 B       | 470,781             | 537,821           | 5 : 5            | abs                | ① ②                    |  |
| Actavis, Inc.                    | 88 C       | 83 D       | Response not public |                   |                  |                    |                        |  |
| Aetna Inc.                       | 61 D       | 38         | 6,104               | 51,446            | 2 : 11           | abs                |                        |  |
| Allergan, Inc.                   | 91 B       | 90 A       | 49,128              | 52,049            | 2 : 10           | abs, int           | ① ②                    |  |
| Amgen, Inc.                      | 76 B       | 75 B       | 119,968             | 286,679           | 3 : 13           | abs                | ① ②                    |  |
| Baxter International Inc.        | 82 B       | 77 C       | 345,000             | 445,000           | 10 : 12          | abs, int           | ① ② ③                  |  |
| Becton, Dickinson and Co.        | 69 B       | 59 D       | 71,926              | 248,258           | 3 : 13           | int                |                        |  |
| Biogen Idec Inc.                 | 92 B       | 84 B       | 46,588              | 39,307            | 7 : 8            | abs                | ① ② ③                  |  |
| Boston Scientific Corporation    | 44         | 37         | 29,600              | 108,600           | 0 : 15           | abs                |                        |  |
| ▼ <b>Bristol-Myers Squibb</b>    | 96 B       | 89 B       | 269,734             | 262,565           | 2 : 10           | abs                | ① ② ③                  |  |
| Cardinal Health Inc.             | 71 D       | 75 D       | 151,357             | 209,745           | 1 : 15           |                    |                        |  |
| Celgene Corporation              | 80 C       | 54 C       | 14,458              | 18,420            | 2 : 10           |                    | ① ② ③                  |  |
| Cigna                            | 59 C       | 52 E       | 4,325               | 83,784            | 1 : 15           |                    |                        |  |
| Covidien Ltd.                    | 70 C       | 51 E       | 230,511             | 402,132           | 0 : 15           | int                |                        |  |
| Eli Lilly & Co.                  | 86 B       | 65 C       | 415,040             | 1,160,941         | 4 : 11           | int                | ① ② ③                  |  |
| Forest Laboratories, Inc.        | 56 E       | 49         | Response not public |                   |                  |                    |                        |  |
| Hospira, Inc.                    | 50 E       | 47         | 77,600              | 354,800           | 2 : 15           | int                |                        |  |
| Humana Inc.                      | 83 B       | 80 C       | 12,660              | 111,905           | 2 : 5            | abs                |                        |  |
| ▼ <b>Johnson &amp; Johnson</b>   | 98 A-      | 93 B       | 329,556             | 853,700           | 2 : 10           | abs                | ① ② ③                  |  |
| Life Technologies Corp.          | 81 B       | 80 C       | 35,979              | 52,211            | 2 : 13           | int                |                        |  |
| Medtronic, Inc.                  | 61 D       | 49         | 31,460              | 170,685           | 2 : 15           | int                |                        |  |
| Merck & Co., Inc.                | 87 B       | 83 B       | 1,053,000           | 927,000           | 3 : 15           | abs                | ① ②                    |  |
| Patterson Companies, Inc.        | 53 E       | 42         | Response not public |                   |                  |                    |                        |  |
| PerkinElmer, Inc.                | 62 D       | 53 D       | 19,954              | 24,080            | 1 : 15           | abs                |                        |  |
| Pfizer Inc.                      | 91 B       | 87 A       | 1,217,736           | 1,155,762         | 8 : 9            | abs                | ① ②                    |  |
| Quest Diagnostics Inc.           | 59 D       | 56 D       | 85,242              | 183,384           | 0 : 11           |                    |                        |  |
| Stryker Corporation              | 53 E       | DP         | Response not public |                   |                  |                    |                        |  |
| Tenet Healthcare Corporation     | 19         | NR         | —                   | —                 | 0 : 15           |                    |                        |  |
| Thermo Fisher Scientific Inc.    | 75 D       | 69 D       | 64,863              | 297,992           | 0 : 15           |                    |                        |  |
| ▼ <b>UnitedHealth Group Inc.</b> | 98 B       | 66 D       | 8,694               | 104,200           | 2 : 4            | int                | ① ② ③                  |  |
| Varian Medical Systems Inc.      | 84 C       | 81 D       | 42,650              | 20,831            | 2 : 13           | int                |                        |  |
| Waters Corporation               | 75 C       | 63 D       | 16,533              | 20,717            | 6 : 12           | int                |                        |  |
| WellPoint, Inc.                  | 57 C       | 69 C       | 7,460               | 114,199           | 3 : 15           | abs                |                        |  |
| Zimmer Holdings, Inc.            | 62 E       | 57 E       | 11,687              | 51,960            | 0 : 15           |                    |                        |  |

### Declined to participate

CR Bard Inc.  
Edwards Lifesciences Corp.  
Express Scripts Holding Company  
McKesson Corporation

### No response

Alexion Pharmaceuticals  
AmerisourceBergen Corp.  
Carefusion Corp.  
Cerner Corp.  
Coventry Health Care, Inc.  
DaVita Inc.  
DENTSPLY International Inc.  
Gilead Sciences, Inc.  
Intuitive Surgical Inc.  
Laboratory Corporation of America Holdings  
Mylan Inc.  
Perrigo Co.  
St. Jude Medical, Inc.

## Appendix I Table of scores, emissions, and company detail by sector

| Company                                   | 2013 score | 2012 score | Scope 1 emissions | Scope 2 emissions | Scope 3 progress | Target(s) reported          | Verification/assurance |
|---|------------|------------|-------------------|-------------------|------------------|-----------------------------|------------------------|
| <b>Industrials</b>                        |            |            |                   |                   |                  |                             |                        |
| 3M Company                                | 70 D       | 68 C       | 4,540,000         | 2,230,000         | 9 : 13           |                             |                        |
| Avery Dennison Corporation                | 85 C       | 59 C       | 160,558           | 367,087           | 1 : 10           | int                         |                        |
| ▼ <b>Boeing Company</b>                   | 96 A-      | 89 B       | 576,000           | 998,000           | 1 : 14           | abs, int                    | ① ② ③                  |
| C.H. Robinson Worldwide, Inc.             | 30         | 30         |                   |                   |                  | Response not public         |                        |
| ▼ <b>CSX Corporation</b>                  | 95 A       | 95 B       | 5,268,905         | 300,170           | 2 : 7            | int                         | ① ② ③                  |
| Cummins Inc.                              | 91 B       | 87 B       | 232,052           | 409,890           | 11 : 13          | int                         | ① ② ③                  |
| Danaher Corporation                       | 12         | 16         |                   |                   |                  | Response not public         |                        |
| Deere & Company                           | 79 C       | 76 C       | 440,147           | 1,053,446         | 5 : 13           | int                         | ① ② ③                  |
| Dover Corporation                         | 79 C       | 79 D       | 116,471           | 246,958           | 0 : 15           | int                         |                        |
| ▼ <b>Eaton Corporation</b>                | 100 A-     | 94 A       | 105,382           | 637,346           | 8 : 8            | abs, int                    | ① ② ③                  |
| Emerson Electric Co.                      | AQL        | 9          |                   |                   |                  | Answered questionnaire late |                        |
| Expeditors International of Washington    | 72 C       | 67 D       | 6,866             | 42,484            | 0 : 12           | int                         |                        |
| FedEx Corporation                         | 80 B       | 70 D       | 14,602,697        | 959,109           | 2 : 13           | int                         | ①                      |
| First Solar Inc.                          | 77 C       | 80 C       | 11,094            | 351,621           | 0 : 15           | int                         |                        |
| Fluor Corporation                         | 48         | 7          | 16,291            | 56,390            | 1 : 15           |                             |                        |
| General Electric Company                  | 72 C       | 73 C       | 1,970,000         | 2,905,000         | 7 : 13           | abs                         |                        |
| Honeywell International Inc.              | 74 B       | 22         | 5,532,844         | 1,756,275         | 0 : 15           | int                         | ① ②                    |
| Illinois Tool Works, Inc.                 | 79 C       | 76 E       |                   |                   |                  | Response not public         |                        |
| Ingersoll-Rand Co. Ltd.                   | 80 B       | 76 B       | 362,126           | 348,135           | 1 : 11           | int                         | ① ②                    |
| Iron Mountain Inc.                        | 82 B       | DP         | 117,644           | 152,136           | 1 : 9            | abs                         |                        |
| Jacobs Engineering Group Inc.             | 66 D       | 58 D       | 5,469             | 8,176             | 2 : 2            | abs                         |                        |
| ▼ <b>Lockheed Martin Corporation</b>      | 91 A       | 93 A       | 249,491           | 985,006           | 2 : 10           | abs                         | ① ② ③                  |
| Masco Corporation                         | 68 C       | 63 C       | 86,679            | 297,364           | 1 : 15           | int                         | ① ② ③                  |
| Norfolk Southern Corp.                    | 90 B       | 88 B       | 4,925,238         | 252,854           | 2 : 9            | int                         | ① ② ③                  |
| ▼ <b>Northrop Grumman Corp.</b>           | 99 A       | 90 A       | 151,378           | 487,508           | 4 : 7            | int                         | ① ② ③                  |
| Pall Corporation                          | 61 C       | 68 D       | 34,815            | 110,833           | 0 : 15           | int                         |                        |
| Parker-Hannifin Corporation               | 88 B       | 74 C       | 78,749            | 589,183           | 1 : 11           | int                         |                        |
| Pitney Bowes Inc.                         | 70 D       | 72 D       | 46,773            | 65,922            | 1 : 15           |                             | ① ②                    |
| ▼ <b>Raytheon Company</b>                 | 98 A       | 90 B       | 101,715           | 435,872           | 3 : 11           | abs                         | ① ② ③                  |
| Robert Half International Inc.            | 4          | 9          |                   |                   |                  | Response not public         |                        |
| Rockwell Automation                       | 71 C       | 61 C       | 23,000            | 105,000           | 1 : 12           | abs, int                    |                        |
| Rockwell Collins, Inc.                    | 66 C       | 68 D       | 18,097            | 131,717           | 0 : 15           | abs                         |                        |
| Ryder System, Inc.                        | 92 B       | 81 C       | 600,218           | 106,483           | 2 : 11           | abs                         | ① ② ③                  |
| Snap-On Inc.                              | 53 E       | 48         |                   |                   |                  | Response not public         |                        |
| Southwest Airlines Co.                    | 93 B       | 54 D       | 18,232,474        | 46,783            | 2 : 6            | int                         | ① ② ③                  |
| ▼ <b>Stanley Black &amp; Decker, Inc.</b> | 94 A       | 84 B       | 90,892            | 260,447           | 4 : 15           | int                         | ① ② ③                  |
| Textron Inc.                              | 57 B       | 49         | 117,715           | 467,955           | 0 : 15           | int                         |                        |
| Tyco International                        | 48         | AQL        |                   |                   |                  | Response not public         |                        |
| ▼ <b>Union Pacific Corporation</b>        | 98 B       | 87 B       | 11,595,509        | 407,176           | 1 : 8            | int                         | ① ② ③                  |
| United Technologies Corporation           | 87 B       | 70 C       | 801,694           | 880,896           | 1 : 15           | abs                         | ① ②                    |
| ▼ <b>UPS</b>                              | 99 A-      | 99 B       | 11,715,635        | 823,212           | 4 : 6            | int                         | ① ② ③                  |
| W.W. Grainger, Inc.                       | 93 B       | 73 C       | 34,011            | 102,746           | 1 : 10           |                             | ① ② ③                  |
| Waste Management, Inc.                    | 89 B       | 84 B       | 19,350,040        | 262,992           | 3 : 15           | abs, int                    | ①                      |
| Xylem Inc.                                | 72 D       | 46         | 40,188            | 31,529            | 0 : 15           | abs                         |                        |

### Information provided, but did not answer questionnaire

Caterpillar Inc.  
Flowserve Corporation  
PACCAR Inc.

### Declined to participate

ADT Corporation  
Cintas Corporation  
Fastenal Company  
L-3 Communications Holdings, Inc.  
Roper Industries Inc.

### No response

Dun & Bradstreet Corporation  
Equifax Inc.  
General Dynamics Corporation  
Joy Global Inc.  
Pentair, Inc.  
Precision Castparts Corp.  
Quanta Services Inc.  
Republic Services, Inc.  
Stericycle Inc.

### Legend

▼ CDLI leader  
▼ CPLI leader

AQL answered questionnaire late  
NR no response  
DP declined to participate  
— information not available

### Targets

abs absolute  
int intensity

### Verification/assurance

① Scope 1  
② Scope 2  
③ Scope 2

## Appendix I Table of scores, emissions, and company detail by sector

| Company                               | 2013 score | 2012 score | Scope 1 emissions | Scope 2 emissions | Scope 3 progress | Target(s) reported          | Verification/assurance |
|---------------------------------------|------------|------------|-------------------|-------------------|------------------|-----------------------------|------------------------|
| <b>Information Technology</b>         |            |            |                   |                   |                  |                             |                        |
| Accenture                             | 92 B       | 93 B       | 9,383             | 224,615           | 1 : 1            | int                         | ② ③                    |
| ▼ <b>Adobe Systems, Inc.</b>          | 97 A       | 93 B       | 2,744             | 22,995            | 5 : 11           | abs                         | ① ② ③                  |
| Advanced Micro Devices, Inc.          | 67 C       | 68 C       | 41,175            | 158,805           | 3 : 14           | abs, int                    |                        |
| Agilent Technologies Inc.             | 94 B       | 78 C       | 14,049            | 108,100           | 3 : 15           | abs                         | ① ② ③                  |
| Akamai Technologies Inc.              | 84 B       | 79 C       | 375               | 97,281            | 6 : 9            | int                         | ① ② ③                  |
| Altera Corp.                          | 57 D       | 47         | 1,934             | 12,094            | 0 : 15           |                             |                        |
| Analog Devices, Inc.                  | 88 B       | 76 C       |                   |                   |                  | Response not public         |                        |
| Applied Materials Inc.                | AQL        | 86 B       |                   |                   |                  | Answered questionnaire late |                        |
| ▼ <b>Autodesk, Inc.</b>               | 99 A       | 93 A       | 2,169             | 3,400             | 9 : 9            | abs, int                    | ① ② ③                  |
| Automatic Data Processing, Inc.       | 83 C       | 71 D       | 15,500            | 157,100           | 2 : 15           | abs                         |                        |
| Broadcom Corporation                  | 92 B       | 82 D       | 3,598             | 51,426            | 2 : 11           | int                         | ① ②                    |
| CA Technologies                       | 90 B       | 84 B       | 14,864            | 56,710            | 1 : 8            | abs                         | ① ② ③                  |
| ▼ <b>Cisco Systems, Inc.</b>          | 100 A      | 96 B       | 65,832            | 628,164           | 8 : 8            | abs                         | ① ② ③                  |
| Cognizant Technology Solutions Corp.  | 64 C       | 68 D       | 46,934            | 137,460           | 2 : 15           | int                         |                        |
| Computer Sciences Corporation (CSC)   | 82 B       | 82 C       |                   |                   |                  | Response not public         |                        |
| Corning Inc.                          | 54 D       | 42         | 383,729           | 1,129,330         | 0 : 15           |                             | ① ②                    |
| Dell Inc.                             | 77 B       | 81 B       | 38,738            | 407,556           | 1 : 6            | abs, int                    | ① ② ③                  |
| ▼ <b>EMC Corporation</b>              | 97 A       | 91 B       | 45,886            | 368,528           | 6 : 6            | abs, int                    | ① ② ③                  |
| F5 Networks, Inc.                     | 48         | IN         |                   |                   |                  | Response not public         |                        |
| Fiserv, Inc.                          | 14         | 11         | —                 | —                 | 0 : 15           |                             |                        |
| Google Inc.                           | 93 B       | 95 B       | 37,187            | 1,149,988         | 4 : 5            | int                         | ① ② ③                  |
| ▼ <b>Hewlett-Packard</b>              | 99 A       | 92 B       | 246,000           | 1,643,000         | 9 : 9            | abs                         | ① ② ③                  |
| Intel Corporation                     | 85 B       | 88 A       | 794,759           | 2,331,048         | 6 : 15           | abs, int                    | ① ②                    |
| International Business Machines (IBM) | 86 B       | 86 B       | 541,584           | 2,208,459         | 1 : 8            | abs                         | ① ②                    |
| Intuit Inc.                           | 85 B       | 73 D       | 7,559             | 36,281            | 4 : 12           | abs                         |                        |
| Jabil Circuit, Inc.                   | 82 C       | 86 C       | 22,146            | 680,868           | 2 : 4            | int                         |                        |
| ▼ <b>JDS Uniphase Corp.</b>           | 88 A       | 74 C       | 5,117             | 38,715            | 1 : 2            | abs                         | ① ②                    |
| Juniper Networks, Inc.                | 81 B       | 80 B       | 6,312             | 108,067           | 2 : 15           | int                         |                        |
| KLA-Tencor Corporation                | AQL        | AQL        |                   |                   |                  | Answered questionnaire late |                        |
| Linear Technology Corp.               | AQL        | NR         |                   |                   |                  | Answered questionnaire late |                        |
| LSI Corporation                       | 89 B       | 86 B       | 3,505             | 46,739            | 3 : 11           | int                         | ① ②                    |
| MasterCard Inc.                       | 43         | 39         | 3,026             | 37,825            | 0 : 15           |                             |                        |
| Microchip Technology                  | 76 B       | 75 B       | 97,004            | 174,960           | 0 : 12           | abs                         |                        |
| Micron Technology, Inc.               | 34         | 28         | 913,221           | 1,255,260         | 0 : 15           |                             |                        |
| ▼ <b>Microsoft Corporation</b>        | 96 A       | 99 B       | 48,516            | 1,207,419         | 7 : 11           | int                         | ① ② ③                  |
| Molex Inc.                            | 81 D       | 59 E       | 13,219            | 279,870           | 1 : 8            |                             |                        |
| Motorola Solutions                    | 74 B       | 79 C       | 26,483            | 150,121           | 1 : 14           | abs                         | ① ② ③                  |
| NetApp Inc.                           | 87 C       | 70 D       | 8,695             | 135,517           | 4 : 7            |                             |                        |
| NVIDIA Corporation                    | 87 B       | 82 C       | 2,084             | 44,500            | 2 : 13           | int                         | ① ②                    |
| Oracle Corporation                    | 79 C       | 61 D       | 16,481            | 440,773           | 3 : 12           | int                         |                        |
| QUALCOMM Inc.                         | 56 D       | 59 D       | 64,782            | 49,216            | 0 : 15           |                             |                        |
| SAIC Inc.                             | AQL        | 73 B       |                   |                   |                  | Answered questionnaire late |                        |
| salesforce.com                        | 90 C       | 94 C       | 2,350             | 29,429            | 2 : 10           |                             | ① ② ③                  |
| SanDisk Corporation                   | 82 B       | 90 B       | 3,486             | 95,576            | 4 : 12           | int                         | ① ② ③                  |
| Seagate Technology LLC                | AQL        | X          |                   |                   |                  | Answered questionnaire late |                        |
| ▼ <b>Symantec Corporation</b>         | 98 B       | 87 C       | 8,310             | 163,479           | 6 : 11           |                             | ① ② ③                  |
| TE Connectivity                       | 64 C       | 53 D       | 209,972           | 500,585           | 0 : 15           | abs, int                    |                        |
| Teradata Corp.                        | 45         | 38         | 502               | 21,548            | 0 : 15           | int                         |                        |
| Teradyne Inc.                         | 61 D       | 67 C       | 2,039             | 23,850            | 1 : 15           | abs                         |                        |
| Texas Instruments Inc.                | 64 D       | 61 D       | 827,274           | 1,588,466         | 0 : 10           | int                         |                        |
| Total System Services (TSYS)          | 19         | 20         |                   |                   |                  | Response not public         |                        |
| Visa                                  | 61 D       | 51 E       | 8,151             | 68,313            | 3 : 15           |                             |                        |
| Western Digital Corp                  | 56 D       | 52 E       | 11,796            | 440,918           | 2 : 15           |                             |                        |
| Xerox Corporation                     | 77 B       | 76 B       | 147,004           | 139,695           | 2 : 15           | abs                         |                        |
| Xilinx Inc.                           | 46         | 53 E       |                   |                   |                  | Response not public         |                        |
| Yahoo! Inc.                           | 91 B       | 59 D       | 4,002             | 333,291           | 2 : 7            | int                         | ① ②                    |

**Information provided, but did not answer questionnaire**

Western Union Co.

**Declined to participate**

Fidelity National Information Services

FLIR Systems

Lam Research Corp.

**No response**

Amphenol Corporation

Apple Inc.

BMC Software

Citrix Systems

Electronic Arts Inc.

Harris Corporation

Paychex, Inc.

Red Hat Inc

Verisign Inc.

### Legend

▼ CDLI leader

▼ CPLI leader

AQL answered questionnaire late

NR no response

IN information provided, but did not answer questionnaire

— information not available

X company was not on S&P 500

### Targets

abs absolute

int intensity

### Verification/assurance

① Scope 1

② Scope 2

③ Scope 3

## Appendix I Table of scores, emissions, and company detail by sector

| Company                                      | 2013 score | 2012 score | Scope 1 emissions           | Scope 2 emissions | Scope 3 progress | Target(s) reported | Verification/assurance |  |
|--|------------|------------|-----------------------------|-------------------|------------------|--------------------|------------------------|--|
| <b>Materials</b>                             |            |            |                             |                   |                  |                    |                        |  |
| ▼ <b>Air Products &amp; Chemicals, Inc.</b>  | 99 B       | 95 B       | 14,767,209                  | 10,563,030        | 5 : 6            | int                | 1 2 3                  |  |
| Alcoa Inc.                                   | 87 B       | 91 B       | 29,842,159                  | 16,659,736        | 5 : 5            | abs, int           | 1 2                    |  |
| Ball Corporation                             | 78 B       | 71 C       | 375,306                     | 934,948           | 3 : 15           | int                | 1 2                    |  |
| Bemis Company                                | 59 C       | 60 C       | 222,174                     | 605,397           | 0 : 15           | abs, int           |                        |  |
| Cliffs Natural Resources Inc.                | 72 C       | 37         | 5,461,737                   | 3,280,636         | 0 : 15           |                    |                        |  |
| Dow Chemical Company                         | 90 B       | 91 B       | 27,429,000                  | 8,403,000         | 12 : 12          | abs, int           | 1 2 3                  |  |
| ▼ <b>E.I. du Pont de Nemours and Company</b> | 96 A       | 94 B       | 10,817,680                  | 4,416,220         | 1 : 5            | abs                | 1 2 3                  |  |
| Eastman Chemical Company                     | 47         | 36         | 6,440,000                   | 301,000           | 1 : 15           | int                |                        |  |
| ▼ <b>Ecolab Inc.</b>                         | 98 A       | 93 B       | 336,258                     | 199,296           | 3 : 13           | int                | 1 2 3                  |  |
| Freeport-McMoRan Copper & Gold Inc.          | 86 C       | 88 C       | 5,679,367                   | 3,985,464         | 4 : 13           |                    | 1 2 3                  |  |
| International Flavors & Fragrances Inc.      | 89 B       | 86 B       | 102,249                     | 114,545           | 1 : 11           | int                | 1 2 3                  |  |
| International Paper Company                  | 74 C       | 77 C       | 8,500,000                   | 5,100,000         | 2 : 15           | abs                |                        |  |
| ▼ <b>MeadWestvaco Corp.</b>                  | 98 B       | 93 B       | 2,830,432                   | 564,034           | 3 : 3            | abs, int           | 1 2 3                  |  |
| Monsanto Company                             | 70 D       | 40         | 1,610,000                   | 539,000           | 4 : 11           |                    |                        |  |
| ▼ <b>The Mosaic Company</b>                  | 97 A       | 90 B       | 2,904,196                   | 1,605,383         | 4 : 8            | abs, int           | 1 2 3                  |  |
| Newmont Mining Corporation                   | 92 B       | 92 C       | 4,016,150                   | 1,182,740         | 2 : 15           | abs                | 1 2 3                  |  |
| Owens-Illinois                               | 31         | 30         | 4,805,000                   | —                 | 0 : 15           | abs                |                        |  |
| Plum Creek Timber Co. Inc.                   | 93 B       | 89 B       | 39,879                      | 102,911           | 3 : 12           | int                | 1 2                    |  |
| PPG Industries, Inc.                         | 60 D       | 64 C       | 4,053,000                   | 1,810,000         | 0 : 15           | int                |                        |  |
| ▼ <b>Praxair, Inc.</b>                       | 98 B       | 95 A-      | 5,355,000                   | 11,329,000        | 3 : 3            | abs, int           | 1 2 3                  |  |
| Sealed Air Corp.                             | 59 D       | 69 B       | 209,121                     | 490,907           | 0 : 14           | abs, int           |                        |  |
| ▼ <b>Sigma-Aldrich Corporation</b>           | 97 B       | 95 C       | 55,453                      | 163,354           | 2 : 9            | int                | 1 2 3                  |  |
| United States Steel Corporation              | 78 B       | 75 C       | 42,729,786                  | 5,036,625         | 4 : 15           | abs                | 1                      |  |
| <b>Telecommunications Services</b>           |            |            |                             |                   |                  |                    |                        |  |
| ▼ <b>AT&amp;T Inc.</b>                       | 96 B       | 95 B       | 948,441                     | 7,894,626         | 1 : 11           | abs                | 1 2 3                  |  |
| CenturyLink                                  | 66 D       | 61 E       | 279,523                     | 2,079,912         | 2 : 12           | int                |                        |  |
| ▼ <b>Sprint Nextel Corporation</b>           | 97 A       | 97 B       | 77,684                      | 1,684,095         | 8 : 12           | abs, int           | 1 2 3                  |  |
| Verizon Communications Inc.                  | 84 B       | 66 B       | 512,899                     | 5,334,874         | 1 : 10           | int                |                        |  |
| Windstream Corporation                       | 8          | 7          | —                           | —                 | 0 : 15           |                    |                        |  |
| <b>Utilities</b>                             |            |            |                             |                   |                  |                    |                        |  |
| The AES Corporation                          | 66 C       | 37         | 78,912,213                  | 414,924           | 0 : 15           | abs                | 1                      |  |
| Ameren Corporation                           | 80 B       | 75 C       | 55,182,550                  | 807,168           | 2 : 15           | abs                | 1                      |  |
| American Electric Power Company, Inc.        | 68 D       | 76 C       | 121,927,400                 | —                 | 0 : 15           | abs                |                        |  |
| CenterPoint Energy, Inc.                     | 51 E       | 23         | 2,676,373                   | —                 | 1 : 15           |                    |                        |  |
| CMS Energy Corporation                       | 93 C       | 77 C       | 15,824,184                  | 44,597            | 2 : 11           | abs, int           | 1                      |  |
| Consolidated Edison, Inc.                    | 89 B       | 92 B       | 3,271,267                   | 1,123,555         | 2 : 15           | abs                | 1 2                    |  |
| DTE Energy Company                           | 82 C       | 68 D       | 35,220,000                  | 2,330,000         | 3 : 11           | int                | 1                      |  |
| Duke Energy Corporation                      | 67 C       | 59 C       | 123,430,000                 | —                 | 0 : 1            | abs, int           | 1                      |  |
| ▼ <b>Entergy Corporation</b>                 | 100 A      | 94 B       | 34,827,380                  | 812,825           | 4 : 5            | abs                | 1 2 3                  |  |
| ▼ <b>Exelon Corporation</b>                  | 98 A       | 94 A       | 26,038,890                  | 5,691,542         | 5 : 5            | abs                | 1 2 3                  |  |
| Integrus Energy Group, Inc.                  | 32         | 39         | 8,533,917                   | —                 | 0 : 15           |                    |                        |  |
| NISource Inc.                                | 50 D       | DP         | 17,715,394                  | 265,333           | 0 : 15           | int                |                        |  |
| Northeast Utilities                          | 79 B       | 85 C       | 1,733,852                   | 600,223           | 1 : 15           | abs                | 1                      |  |
| NRG Energy Inc.                              | 86 B       | 89 B       | 50,089,000                  | 292,000           | 3 : 8            | abs, int           | 1 2 3                  |  |
| Oneok Inc.                                   | AQL        | NR         | Answered questionnaire late |                   |                  |                    |                        |  |
| ▼ <b>Pepco Holdings, Inc.</b>                | 94 A       | 97 A       | 258,077                     | 1,069,545         | 2 : 8            | abs                | 1 2 3                  |  |
| PG&E Corporation                             | 93 B       | 93 B       | 3,447,026                   | 1,206,920         | 4 : 7            | abs                | 1 2                    |  |
| Pinnacle West Capital Corporation            | 48         | 41         | 14,637,965                  | 19,931            | 0 : 15           | abs                |                        |  |
| ▼ <b>Sempra Energy</b>                       | 97 B       | 97 B       | 7,679,688                   | 367,885           | 2 : 3            | abs, int           | 1 2                    |  |
| Wisconsin Energy Corporation                 | 64 D       | 53 E       | 18,098,000                  | 969,000           | 0 : 15           |                    |                        |  |
| Xcel Energy Inc.                             | 91 B       | 93 B       | 54,472,480                  | 1,189,959         | 3 : 7            | abs                | 1 2                    |  |

**Declined to participate**  
Allegheny Technologies Inc.  
FMC Corp.

**No response**  
Airgas  
CF Industries Holdings, Inc.  
LyondellBasell Industries CI A  
Nucor Corporation  
Vulcan Materials Company

**Declined to participate**  
American Tower Corp.  
Frontier Communications Corp.

**No response**  
Crown Castle International Corp.  
Metro PCS Communications, Inc.

**Information provided, but did not answer questionnaire**  
The Southern Company

**Declined to participate**  
AGL Resources  
Dominion Resources, Inc.  
Edison International  
EQT Corporation  
PPL Corporation

**No response**  
FirstEnergy Corporation  
NextEra Energy, Inc.  
Public Service Enterprise Group Inc.  
SCANA Corporation  
TECO Energy, Inc.

## Appendix II

### Other responding companies

**CDP would like to recognize all US-based, non-S&P 500\* companies that used CDP's climate change questionnaire to manage their carbon and energy impacts this year. CDP also acknowledges those organizations whose vital information was provided to investors through another company's submission. The majority of these disclosures are publicly available at [www.cdp.net](http://www.cdp.net).**

|   |                                      |                                 |
|---|--------------------------------------|---------------------------------|
| AbbVie Inc.   | Future Electronics                   | Owens Corning                   |
| Actiontec Electronics   | General Cable Corp.                  | Pericom Semiconductor Corp.     |
| Alliant Energy Corporation  | General Motors Company               | PMC-Sierra, Inc.                |
| American Water Works  | GenOn                                | PRESTIGE MAINTENANCE USA        |
| AMKOR TECHNOLOGY INC.   | GRANT THORNTON                       | PrimeAsia Leather Company       |
| AMR Corporation   | Green Mountain Coffee Roasters, Inc. | QLogic Corp.                    |
| AptarGroup  | Hanesbrands Inc.                     | ResMed                          |
| Ashland Inc.  | Herman Miller                        | Rockline Industries             |
| Atlantic Power Corporation  | Hillshire Brands Company             | RockTenn                        |
| Avago Technologies  | Humanscale Corporation               | Royal Caribbean Cruises Ltd.    |
| Avnet Inc.  | Hyatt Hotels                         | S.C. Johnson & Son, Inc.        |
| Baccus Global LLC   | Idacorp Inc.                         | Sanyo Denki America Inc.        |
| Bausch & Lomb Inc.  | Informatica Corporation              | Seating Inc.                    |
| Bel Fuse Inc.   | Integrated Device Technology, Inc.   | Smithfield Foods, Inc.          |
| Bernhardt Design, a Division of Bernhardt Furniture Company         | Interface, Inc.                      | Sonoco Products Company         |
| Bernhardt Residential, a Division of Bernhardt Furniture Company    | International Rectifier              | Spansion Inc.                   |
| Bernhardt Transportation, a Division of Bernhardt Furniture Company | Inwood Office Environments           | Steelcase                       |
| Brocade Communications Systems, Inc.                                | Itron, Inc.                          | SunGard                         |
| Caesars Entertainment   | Izzy+                                | SunPower Corporation            |
| Cal Development   | J.B. Hunt Transport Services, Inc.   | Syniverse                       |
| Cargill   | Kirby Corporation                    | Terex Corporation               |
| Carpenter Technology Corp.  | KNOLL INC.                           | The Hertz Corporation           |
| CASELLA   | Las Vegas Sands Corporation          | The Oppenheimer Group           |
| Chicken of the Sea Intl.  | Layne Christensen Company            | Thomson Reuters Corporation     |
| Compatico   | Level 3 Communications, Inc.         | Throgmorton Trust plc.          |
| Compuware Corp.   | Levi Strauss & Co.                   | Trans-Expedite Inc.             |
| Constellation Energy Group, Inc.                                    | Lexmark International, Inc.          | Trendway Corporation            |
| CoreLogic, Inc.   | ManpowerGroup                        | Trinity Industries, Inc.        |
| Covanta Energy Corporation  | Markel Corporation                   | TriQuint Semiconductor          |
| Cypress Semiconductor Corporation                                   | Marvell Technology Group, Ltd.       | TRW Automotive Holdings Corp.   |
| Delta Air Lines   | MASS Precision                       | Unigen                          |
| Diebold   | Maxim Integrated Products, Inc.      | Unisys Corporation              |
| Dunkin' Brands Group  | Menasha Packaging Company LLC        | United Continental Holdings     |
| DW Morgan, LLC  | MGM Resorts International            | United Industries               |
| Eastman Kodak Company   | Minntronix                           | UNITED RENTALS                  |
| Edinburgh Dragon Trust  | ModusLink Corporation                | Valspar Corporation             |
| ENERGY FEDERATION   | Motorola Mobility                    | Via Seating                     |
| EnerNOC, Inc.   | Nordson Corporation                  | Virgin Media Inc.               |
| Ernst & Young LLP (USA)   | Office Depot, Inc.                   | Visteon                         |
| Fairchild Semiconductor   | OGE Energy Corporation               | VWR International LLC           |
| Formosa Plastics (US)   | ON Semiconductor                     | Wesco International             |
| Freescale Semiconductor Ltd.  | Oracle Flexible Packaging            | World Resources Institute (WRI) |
|   | Orbis Corp.                          |                                 |
|   | Ormat Technologies Inc.              |                                 |

\*The S&P 500 list of companies covered in the main body of this report was taken on December 31, 2012.  
Note: Non-S&P 500 companies are not eligible for ranking on the CDLI or CPLI.

# Appendix III

## Investor members

CDP works with investors globally to advance the investment opportunities and reduce the risks posed by climate change by asking over 5,000 of the world's largest companies to report their climate strategies, GHG emissions and energy use through CDP's standardized

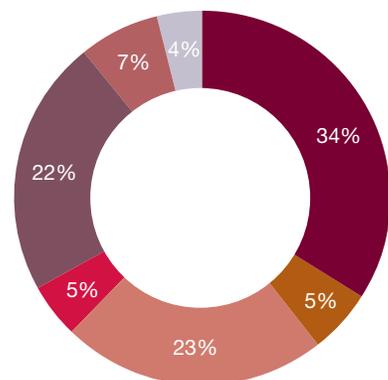
format. To learn more about CDP's member offering and becoming a member, please contact us or visit [www.cdp.net/en-US/WhatWeDo/](http://www.cdp.net/en-US/WhatWeDo/).

### 2013 signatory investor breakdown by region



### 2013 investor signatory breakdown by type

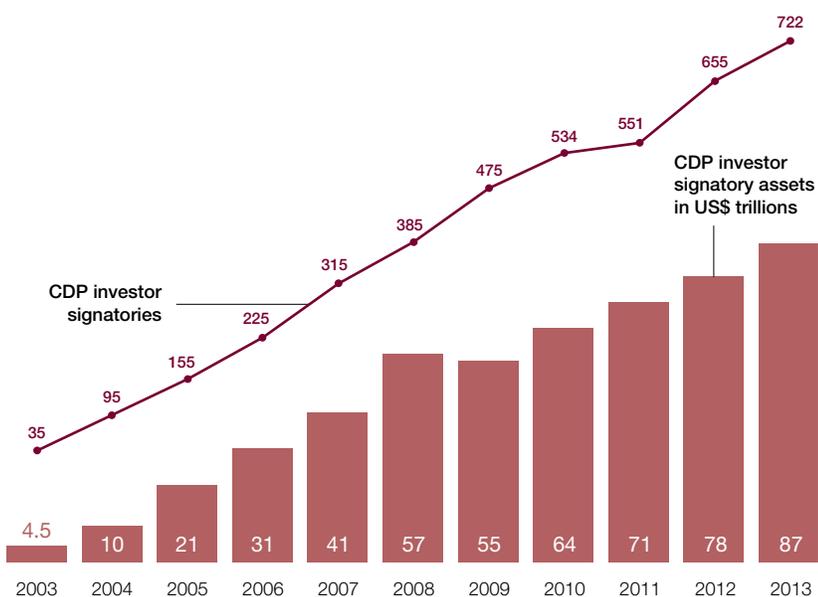
- 247 Mainstream asset managers
- 39 SRI asset managers
- 167 Pension funds
- 34 Foundations
- 160 Banks
- 51 Insurance
- 27 Other



### CDP investor members 2013

|   |                                  |  |   |
|---|----------------------------------|--|---|
| ABRAPP—Associação Brasileira das Entidades Fechadas de Previdência Complementar | Capricorn Investment Group       | Mongeral Aegon Seguros e Previdência S.A.                | Royal Bank of Scotland Group              |
| ATP Group   | Catholic Super                   | Morgan Stanley   | Sampension KP Livsforsikring A/S          |
| Aviva Investors   | CCLA Investment Management Ltd.  | National Australia Bank                                  | Schroders                                 |
| Bank of America   | Daiwa Asset Management Co. Ltd.  | Neuberger Berman   | Scottish Widows Investment Partnership    |
| Bendigo and Adelaide Bank   | Generation Investment Management | Newton Investment Management Limited                     | Skandinaviska Enskilda Banken AB (SEB AB) |
| BlackRock   | Goldman Sachs Group Inc.         | Nordea Bank  | Sompo Japan Insurance Inc.                |
| Boston Common Asset Management, LLC   | Henderson Global Investors       | Norges Bank Investment Management (NBIM)                 | Standard Chartered                        |
| California Public Employees' Retirement System (CalPERS)                        | HSBC Holdings plc                | Northwest and Ethical Investments L.P. (NEI Investments) | Sun Life Financial Inc.                   |
| California State Teachers' Retirement System (CalSTRS)                          | KLP                              | PFA Pension  | Sustainable Insight Capital Management    |
| Calvert Group, Ltd.   | Legg Mason, Inc.                 | Robeco   | TD Asset Management                       |
|   | London Pensions Fund Authority   | RobecoSAM AG   | The Wellcome Trust                        |
|   | Mobimo Holding AG                | Rockefeller Asset Management                             |   |

### CDP investor signatories and assets against time



## Appendix IV

### Investor signatories

# 722

financial institutions with assets of US\$87 trillion were signatories to the CDP 2013 climate change information request dated February 1, 2013.

|  |   |  |  |
|--|---|--|--|
| Aberdeen Asset Management  | Australia and New Zealand Banking Group                           | BBVA   | Chinatrust Financial Holding Co Limited              |
| Aberdeen Immobilien KAG mbH  | Australian Ethical Investment                                     | Bedfordshire Pension Fund  | Christian Brothers Investment Services Inc.          |
| ABRAPP—Associação Brasileira das Entidades Fechadas de Previdência Complementar  | AustralianSuper   | Beetle Capital   | Christian Super                                      |
| Achmea NV  | Avaron Asset Management AS  | Befimmo SA   | Christopher Reynolds Foundation                      |
| Active Earth Investment Management   | Aviva   | Bendigo and Adelaide Bank  | Church Commissioners for England                     |
| Acuity Investment Management   | Aviva Investors   | Bentall Kennedy  | Church of England Pensions Board                     |
| Addenda Capital Inc.   | AXA Group   | Berenberg Bank   | CI Mutual Funds' Signature Global Advisors           |
| Advanced Investment Partners   | Baillie Gifford & Co.   | Berti Investments  | City Developments Limited                            |
| Advantage Asset Managers (Pty) Ltd.  | BaltCap   | BioFinance Administração de Recursos de Terceiros Ltda                       | ClearBridge Investments                              |
| Aegon N.V.   | Banco Bradesco S/A  | BlackRock  | Climate Change Capital Group Ltd.                    |
| AEGON-INDUSTRIAL Fund Management Co., Ltd.                                       | Banco Comercial Português SA                                      | Blom Bank SAL  | CM-CIC Asset Management                              |
| AFP Integra  | Banco de Credito del Peru BCP                                     | Blumenthal Foundation  | Colonial First State Global Asset Management         |
| AIG Asset Management   | Banco de Galicia y Buenos Aires S.A.                              | BNP Paribas Investment Partners  | Comerica Incorporated                                |
| AK PORTFÖY YÖNETİMİ A.Ş.   | Banco do Brasil Previdência                                       | BNY Mellon   | Comgest  |
| AKBANK T.A.Ş.  | Banco do Brasil S/A   | BNY Mellon Service Kapitalanlage-Gesellschaft mbH                            | Commerzbank AG                                       |
| Alberta Investment Management Corporation (AIMCo)                                | Banco Espírito Santo SA   | Boston Common Asset Management, LLC  | CommInsure   |
| Alberta Teachers Retirement Fund   | Banco Nacional de Desenvolvimento Economico e Social (BNDES)      | Brasilprev Seguros e Previdência S/A.  | Commonwealth Bank of Australia                       |
| Alcyone Finance  | Banco Popular Espanol   | Breckinridge Capital Advisors  | Commonwealth Superannuation Corporation              |
| AllenbridgeEpic Investment Advisers  | Banco Sabadell  | British Airways Pensions   | Compton Foundation, Inc.                             |
| Alliance Trust   | Banco Santander   | British Coal Staff Superannuation Scheme                                     | Concordia Versicherungs-Gesellschaft a.G.            |
| Allianz Elementar Versicherungs-AG   | Banesprev—Fundo Banespa de Seguridade Social                      | British Columbia Investment Management Corporation (bcIMC)                   | Connecticut Retirement Plans and Trust Funds         |
| Allianz Global Investors AG  | Banesto   | Brown Advisory   | Conser Invest  |
| Allianz Group  | BANIF SA  | BT Financial Group   | Co-operative Asset Management                        |
| Altira Group   | Bank Handlowy w Warszawie SA                                      | BT Investment Management   | Co-operative Financial Services (CFS)                |
| Amalgamated Bank   | Bank Leumi Le Israel  | Busan Bank   | Credit Suisse  |
| Amlin  | Bank of America Merrill Lynch                                     | CAAT Pension Plan  | Daegu Bank   |
| AMP Capital Investors  | Bank of Montreal  | Cadiz Holdings Limited   | Daesung Capital Management                           |
| AmpegaGerling Investment GmbH  | Bank of Nova Scotia (Scotiabank)                                  | CAI Corporate Assets International AG  | Daiwa Asset Management Co. Ltd.                      |
| Amundi AM  | Bank Sarasin & Cie AG   | Caisse de dépôt et placement du Québec                                       | Daiwa Securities Group Inc.                          |
| ANBIMA—Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais | Bank Vontobel   | Caisse des Dépôts  | Dalton Nicol Reid                                    |
| Antera Gestão de Recursos S.A.   | Bankhaus Schelhammer & Schattera Kapitalanlagegesellschaft m.b.H. | Caixa de Previdência dos Funcionários do Banco do Nordeste do Brasil (CAPEF) | Danske Bank A/S                                      |
| APG Group  | Bankia  | Caixa Econômica Federal  | de Pury Pictet Turrettini & Cie S.A.                 |
| AQEX LLC   | Bankinter   | Caixa Geral de Depósitos   | DekaBank Deutsche Girozentrale                       |
| Aquila Capital   | BankInvest  | CaixaBank  | Delta Lloyd Asset Management                         |
| Arisaig Partners   | bankmecu  | California Public Employees' Retirement System (CalPERS)                     | Desjardins Financial Security                        |
| Arxx Investment Management   | Banque Degroof  | California State Teachers' Retirement System (CalSTRS)                       | Deutsche Asset Management Investmentgesellschaft mbH |
| ARMA PORTFÖY YÖNETİMİ A.Ş.   | Banque Libano-Francaise   | California State Treasurer   | Deutsche Bank AG                                     |
| Armstrong Asset Management   | Barclays  | Calvert Investment Management, Inc.  | Deutsche Postbank AG                                 |
| ASM Administradora de Recursos S.A.  | Basellandschaftliche Kantonalbank                                 | Canada Pension Plan Investment Board (CPPIB)                                 | Development Bank of Japan Inc.                       |
| ASN Bank   | BASF Sociedade de Previdência Complementar                        | Canadian Imperial Bank of Commerce (CIBC)                                    | Development Bank of the Philippines (DBP)            |
| Assicurazioni Generali Spa   | Basler Kantonalbank   | Canadian Labour Congress Staff Pension Fund                                  | Dexia Asset Management                               |
| ATI Asset Management   | Bâtirente   | CAPESESP   | Dexus Property Group                                 |
| Atlantic Asset Management  | Baumann and Partners S.A.   | Capital Innovations, LLC   | DLM INVISTA ASSET MANAGEMENT S/A                     |
| ATP Group  | Bayern LB   | Capricorn Investment Group   | DNB ASA  |
| Auriel Capital Management  | BayernInvest Kapitalanlagegesellschaft mbH                        | CARE Super   | Domini Social Investments LLC                        |
|  | BBC Pension Trust Ltd.  | Carmignac Gestion  | Dongbu Insurance                                     |
|  |   | Caser Pensiones E.G.F.P  | Doughty Hanson & Co.                                 |
|  |   | Cathay Financial Holding   | DWS Investments                                      |
|  |   | Catherine Donnelly Foundation  | DZ Bank  |
|  |   | Catholic Super   | Earth Capital Partners LLP                           |
|  |   | CBF Church of England Funds  | East Sussex Pension Fund                             |
|  |   | CBRE Group, Inc.   | Ecclesiastical Investment Management                 |
|  |   | Cbus Superannuation Fund   | Ecofi Investissements—Groupe Credit Cooperatif       |
|  |   | CCLA Investment Management Ltd.  | Edward W. Hazen Foundation                           |
|  |   | Celeste Funds Management   | EEA Group Ltd.                                       |
|  |   | Central Finance Board of the Methodist Church                                | Eko  |
|  |   | Ceres  | Elian Capital Partners                               |
|  |   | CERES-Fundação de Seguridade Social  | Element Investment Managers                          |
|  |   | Change Investment Management   | ELETRA—Fundação Celg de Seguros e Previdência        |
|  |   |  | Environment Agency Active Pension fund               |
|  |   |  | Epworth Investment Management                        |
|  |   |  | Equilibrium Capital Group                            |
|  |   |  | equinet Bank AG                                      |

## Appendix IV

### Investor signatories

|  |  |   |  |
|--|--|---|--|
| Erik Penser Fondkommission   | Fundação Itaipu BR—de Previdência e Assistência Social               | IDFC Ltd.   | Light Green Advisors, LLC  |
| Erste Asset Management   | FUNDAÇÃO ITAUBANCO   | Illinois State Board of Investment                        | Living Planet Fund Management Company S.A.                               |
| Erste Group Bank AG  | Fundação Itaúsa Industrial   | Ilmarinen Mutual Pension Insurance Company                | Lloyds Banking Group   |
| Essex Investment Management Company, LLC   | Fundação Promon de Previdência Social                                | Impax Group plc   | Local Authority Pension Fund Forum                                       |
| ESSSuper   | Fundação Rede Ferroviária de Seguridade Social—Refer                 | Independent Planning Group                                | Local Government Super   |
| Ethos Foundation   | FUNDAÇÃO SANEPAR DE PREVIDÊNCIA E ASSISTÊNCIA SOCIAL—FUSAN           | Indusind Bank   | LOGOS PORTFÖY YÖNETİMİ A.Ş.  |
| Ética SGR  | Fundação Sistel de Seguridade Social (Sistel)                        | Industrial Alliance Insurance and Financial Services Inc. | London Pensions Fund Authority   |
| Eureka Funds Management  | Fundação Vale do Rio Doce de Seguridade Social—VALIA                 | Industrial Bank   | Lothian Pension Fund   |
| Eurizon Capital SGR S.p.A.   | FUNDIÁGUA—FUNDAÇÃO DE PREVIDENCIA COMPLEMENTAR DA CAESB              | Industrial Bank of Korea                                  | LUCRF Super  |
| Evangelical Lutheran Church in Canada Pension Plan for Clergy and Lay Workers                      | Futurgrowth Asset Management   | Industrial Development Corporation                        | Macquarie Group  |
| Evangelical Lutheran Foundation of Eastern Canada  | GEAP Fundação de Seguridade Social                                   | Industry Funds Management                                 | MagNet Magyar Közösségi Bank Zrt.  |
| Evli Bank Plc  | General Equity Group AG  | Inflection Point Partners                                 | MainFirst Bank AG  |
| F&C Asset Management   | Generali Deutschland Holding AG                                      | ING Group   | Malakoff Médéric   |
| FACEB—Fundação de Previdência dos Empregados da CEB  | Generation Investment Management                                     | Insight Investment Management (Global) Ltd.               | MAMA Sustainable Incubation AG   |
| FAELCE—Fundacao Coelce de Seguridade Social  | Genus Capital Management   | Instituto Infraero de Seguridade Social—INFRAPREV         | Man Group plc  |
| FAPERS—Fundação Assistencial e Previdenciária da Extensão Rural do Rio Grande do Sul               | German Equity Trust AG   | Instituto Sebrae De Seguridade Social—SEBRAEPREV          | Mandarine Gestion  |
| FASERN—Fundação COSERN de Previdência Complementar   | Gjensidige Forsikring ASA  | Insurance Australia Group                                 | MAPFRE   |
| Fédéris Gestion d'Actifs   | Global Forestry Capital S.a.r.l.                                     | IntReal KAG   | Maple-Brown Abbott   |
| FIDURA Capital Consult GmbH  | GLS Gemeinschaftsbank eG   | Investec Asset Management                                 | Marc J. Lane Investment Management, Inc.                                 |
| FIM Asset Management Ltd.  | Goldman Sachs Group Inc.   | Investing for Good  | Maryland State Treasurer   |
| FIM Services   | GOOD GROWTH INSTITUT für globale Vermögensentwicklung mbH            | Irish Life Investment Managers                            | Matrix Asset Management  |
| Financiere de l'Echiquier  | Governance for Owners  | Itaú Asset Management                                     | Matrix Group   |
| FIPECq—Fundação de Previdência Complementar dos Empregados e Servidores da FINEP, do IPEA, do CNPq | Government Employees Pension Fund ("GEPF"), Republic of South Africa | Itaú Unibanco Holding S.A.                                | McLean Budden  |
| FIRA.—Banco de Mexico  | GPT Group  | Janus Capital Group Inc.                                  | MEAG MUNICH ERGO Asset Management GmbH                                   |
| First Affirmative Financial Network, LLC   | Greater Manchester Pension Fund                                      | Jarislowsky Fraser Limited                                | Mediobanca   |
| First Commercial Bank  | Green Cay Asset Management   | Jessie Smith Noyes Foundation                             | Meeschaert Gestion Privée  |
| First State Investments  | Green Century Capital Management                                     | JOHNSON & JOHNSON SOCIEDADE PREVIDENCIARIA                | Meiji Yasuda Life Insurance Company                                      |
| First State Superannuation Scheme  | GROUPAMA EMEKLİLİK A.Ş.  | JPMorgan Chase & Co.                                      | Mendesprev Sociedade Previdenciária                                      |
| First Swedish National Pension Fund (AP1)  | GROUPAMA SIGORTA A.Ş.  | Jubitz Family Foundation                                  | Merck Family Fund  |
| Firststrand Limited  | Groupe Crédit Coopératif   | Jupiter Asset Management                                  | Mercy Investment Services, Inc.  |
| Five Oceans Asset Management   | Groupe Investissement Responsable Inc.                               | Kaiser Ritter Partner Privatbank AG (Schweiz)             | Mergence Investment Managers   |
| Florida State Board of Administration (SBA)  | GROUPE OFI AM  | KB Kookmin Bank   | MetallRente GmbH   |
| Folketrygdfondet   | Grupo Financiero Banorte SAB de CV                                   | KBC Asset Management NV                                   | Metrus—Instituto de Seguridade Social                                    |
| Folksam  | Grupo Santander Brasil   | KBC Group   | Metzler Investment GmbH  |
| Fondaction CSN   | Gruppo Bancario Credito Valtellinese                                 | KCPS and Company  | MFS Investment Management  |
| Fondation de Luxembourg  | Gruppo Monte Paschi  | KDB Asset Management Co., Ltd.                            | Midas International Asset Management                                     |
| Forma Futura Invest AG   | Guardians of New Zealand Superannuation                              | KDB Daewoo Securities Co. Ltd.                            | Miller/Howard Investments  |
| Fourth Swedish National Pension Fund, (AP4)  | Hang Seng Bank   | KEPLER-FONDS Kapitalanlagegesellschaft m. b. H.           | Mirae Asset Global Investments Co. Ltd.                                  |
| FRANKFURT-TRUST Investment Gesellschaft mbH  | Hanwha Asset Management Company                                      | KEVA  | Mirae Asset Securities   |
| Friends Fiduciary Corporation  | Harbour Asset Management   | KeyCorp   | Mirvac Group   |
| Fubon Financial Holdings   | Harrington Investments, Inc.   | KfW Bankengruppe  | Missionary Oblates of Mary Immaculate                                    |
| Fukoku Capital Management Inc.   | Hauck & Aufhäuser Asset Management GmbH                              | Killik & Co LLP   | Mistra, Foundation for Strategic Environmental Research                  |
| FUNCEF—Fundação dos Economistas Federais   | Hazel Capital LLP  | Kiwi Income Property Trust                                | Mitsubishi UFJ Financial Group, Inc.                                     |
| Fundação AMPLA de Seguridade Social - Brasileiros  | HDFC Bank Ltd.   | Kleinwort Benson Investors                                | Mitsui Sumitomo Insurance Co.,Ltd.                                       |
| Fundação Atlântico de Seguridade Social  | Healthcare of Ontario Pension Plan (HOOPP)                           | KlimalNVEST   | Mizuho Financial Group, Inc.   |
| Fundação Attilio Francisco Xavier Fontana  | Helaba Invest Kapitalanlagegesellschaft mbH                          | KLP Insurance   | Mn Services  |
| Fundação Banrisul de Seguridade Social   | Henderson Global Investors   | Korea Investment Management                               | Momentum Manager of Managers (Pty) Ltd.                                  |
| Fundação BRDE de Previdência Complementar—ISBRE  | Hermes Fund Managers   | Korea Technology Finance Corporation                      | Monega Kapitalanlagegesellschaft mbH                                     |
| Fundação Chesf de Assistência e Seguridade Social—Fachesf  | HESTA Super  | KPA Pension   | Mongeral Aegon Seguros e Previdência S.A.                                |
| Fundação Corsan—dos Funcionários da Companhia Riograndense de Saneamento                           | HIP Investor   | La Banque Postale Asset Management                        | Morgan Stanley   |
| Fundação de Assistência e Previdência Social do BNDES—FAPES  | Holden & Partners  | La Financiere Responsable                                 | Mountain Cleantech AG  |
| FUNDAÇÃO ELETROBRÁS DE SEGURIDADE SOCIAL—ELETROS   | HSBC Global Asset Management (Deutschland) GmbH                      | Lampe Asset Management GmbH                               | MTAA Superannuation Fund   |
| Fundação Forluminas de Seguridade Social—FORLUZ  | HSBC Holdings plc  | Landsorganisationen i Sverige                             | Mutual Insurance Company Pension-Fennia                                  |
|  | HSBC INKA Internationale Kapitalanlagegesellschaft mbH               | LaSalle Investment Management                             | Nanuk Asset Management   |
|  | Humanis  | LBBW—Landesbank Baden-Württemberg                         | Natcan Investment Management   |
|  | Hyundai Marine & Fire Insurance Co., Ltd.                            | LBBW Asset Management Investmentgesellschaft mbH          | National Australia Bank  |
|  | Hyundai Securities Co., Ltd.   | LD Lønmodtagernes Dyrtdisfond                             | National Bank of Canada  |
|  | IBK Securities   | Legal & General Investment Management                     | National Bank Of Greece  |
|  | IDBI Bank Ltd.   | Legg Mason, Inc.  | National Grid Electricity Group of the Electricity Supply Pension Scheme |
|  |  | LGT Capital Management Ltd.                               | National Grid UK Pension Scheme  |
|  |  | LIG Insurance Co., Ltd.                                   | National Pensions Reserve Fund of Ireland                                |
|  |  |   | National Union of Public and General Employees (NUPGE)                   |

## Appendix IV

### Investor signatories

|  |   |   |   |
|--|---|---|---|
| Nativus Sustainable Investments  | Phillips, Hager & North Investment Management Ltd.                  | Sauren Finanzdienstleistungen GmbH & Co. KG               | TD Asset Management   |
| Natixis SA   | PhiTrust Active Investors   | Schroders   | Teachers Insurance and Annuity Association—College Retirement Equities Fund |
| Natural Investments LLC  | Pictet Asset Management SA  | Scottish Widows Investment Partnership                    | Telluride Association   |
| Nedbank Limited  | Pinstripe Management GmbH   | SEB Asset Management AG                                   | Tempis Capital Management Co., Ltd.   |
| Needmor Fund   | Pioneer Investments   | Second Swedish National Pension Fund (AP2)                | Terra Forvaltning AS  |
| Nelson Capital Management, LLC   | Piraeus Bank  | Seligson & Co Fund Management Plc                         | TerraVerde Capital Management LLC   |
| Nest Sammelstiftung  | PKA   | Sentinel Funds  | TfL Pension Fund  |
| Neuberger Berman   | Pluris Sustainable Investments SA                                   | SERPROS—Fundo Multipatrocinado                            | The ASB Community Trust   |
| New Alternatives Fund Inc.   | PNC Financial Services Group, Inc.                                  | Service Employees International Union Benefit Funds       | The Brainerd Foundation   |
| New Amsterdam Partners LLC   | Pohjola Asset Management Ltd.                                       | Servite Friars  | The Bullitt Foundation  |
| New Forests  | Poldeen Puckham Charitable Foundation                               | Seventh Swedish National Pension Fund (AP7)               | The Central Church Fund of Finland  |
| New Mexico State Treasurer   | Portfolio 21 Investments  | Shiga Bank, Ltd.  | The Children's Investment Fund Foundation                                   |
| New York City Employees Retirement System                                      | Porto Seguro S.A.   | Shinhan Bank  | The Clean Yield Group   |
| New York City Teachers Retirement System                                       | POSTALIS - Instituto de Seguridade Social dos Correios e Telégrafos | Shinhan BNP Paribas Investment Trust Management Co., Ltd. | The Collins Foundation  |
| New York State Common Retirement Fund (NYSCRF)                                 | Power Finance Corporation   | Shinkin Asset Management Co., Ltd.                        | The Co-operators Group Limited  |
| Newton Investment Management Limited   | PREVHAB PREVIDÊNCIA COMPLEMENTAR                                    | Siemens Kapitalanlagegesellschaft mbH                     | The Daly Foundation   |
| NGS Super  | PREVI Caixa de Previdência dos Funcionários do Banco do Brasil      | Signet Capital Management Ltd.                            | The Environmental Investment Partnership LLP                                |
| NH-CA Asset Management   | PREVIG Sociedade de Previdência Complementar                        | Skandia   | The Hartford Financial Services Group, Inc.                                 |
| Nikko Asset Management Co., Ltd.   | Prologis  | Skandinaviska Enskilda Banken AB (SEB AB)                 | The Joseph Rowntree Charitable Trust  |
| Nipponkoa Insurance Company, Ltd.  | Provinzial Rheinland Holding  | Smith Pierce, LLC   | The Korea Teachers Pension  |
| Nissay Asset Management Corporation  | Prudential Investment Management                                    | SNS Asset Management                                      | The Nathan Cummings Foundation  |
| NORD/LB Kapitalanlagegesellschaft AG   | Prudential PLC  | Social(k)   | The New School  |
| Nordea Bank  | Psagot Investment House Ltd.  | Sociedade de Previdencia Complementar da Dataprev—Prevdta | The Oppenheimer Group   |
| Norfolk Pension Fund   | PSP Investments   | Socrates Fund Management                                  | The Pension Plan For Employees of the Public Service Alliance of Canada     |
| Norges Bank Investment Management (NBIM)                                       | Q Capital Partners Co. Ltd.   | Solaris Investment Management                             | The Pinch Group   |
| North Carolina Retirement System   | QBE Insurance Group   | Sompo Japan Insurance Inc.                                | The Presbyterian Church in Canada   |
| Northern Ireland Local Government Officers' Superannuation Committee (NILGOSC) | Rabobank  | Sonen Capital LLC   | The Russell Family Foundation   |
| Northern Star Group  | Raiffeisen Fund Management Hungary Ltd.                             | Sopher Investment Management                              | The Sandy River Charitable Foundation                                       |
| Northern Trust   | Raiffeisen Kapitalanlage-Gesellschaft m.b.H.                        | Soprise! LLP  | The Sisters of St. Ann  |
| Northward Capital  | Raiffeisen Schweiz  | SouthPeak Investment Management                           | The Standard Bank Group   |
| Northwest and Ethical Investments L.P. (NEI Investments)                       | Rathbone Greenbank Investments                                      | SPF Beheer bv   | The Sustainability Group  |
| Nykredit   | RCM (Allianz Global Investors)                                      | Spring Water Asset Management, LLC                        | The United Church of Canada—General Council                                 |
| OceanRock Investments Inc.   | Real Grandeza Fundação de Previdência e Assistência Social          | Sprucegrove Investment Management Ltd.                    | The University of Edinburgh Endowment Fund                                  |
| Oddo & Cie   | REI Super   | Standard Chartered  | The Wellcome Trust  |
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