



# Using the Global Framework for Climate Risk Disclosure

*Guide to disclosing  
climate risk to investors*

*Examples of disclosure  
from leading corporations*

October 2006

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# Preface

**In May 2005**, leading investors and other organizations worldwide launched a new effort to improve corporate disclosure of the risks and opportunities posed by global climate change—the Climate Risk Disclosure Initiative. This effort has resulted in the Global Framework for Climate Risk Disclosure, which clearly presents investor expectations about the attributes of successful corporate climate risk disclosure.

Investors require this information in order to analyze a company's business risks and opportunities resulting from climate change, as well as the company's efforts to address those risks and opportunities. The Framework encourages standardized climate risk disclosure to make it easy for companies to provide and for investors to analyze and compare companies.

A group of 14 investors and other organizations led this Climate Risk Disclosure Initiative (CRDI). The CRDI Steering Committee developed a draft Global Framework for Climate Risk Disclosure and circulated it for review by investors, companies, financial analysts, and other experts. More than

50 reviewers commented on the draft. The Steering Committee amended its initial draft substantially as a result of that expert input.

The CRDI Steering Committee included representatives from:

- ◆ California Public Employees' Retirement System
- ◆ California State Controller's Office
- ◆ California State Teachers' Retirement System
- ◆ Carbon Disclosure Project
- ◆ Ceres and the Investor Network on Climate Risk
- ◆ Connecticut State Treasurer's Office
- ◆ Global Reporting Initiative
- ◆ Institutional Investors Group on Climate Change
- ◆ Investor Group on Climate Change Australia / New Zealand
- ◆ United Nations Environment Programme Finance Initiative
- ◆ United Nations Foundation
- ◆ United Nations Fund for International Partnerships
- ◆ Universities Superannuation Scheme

The Framework is intended to support the leading mechanisms for global corporate climate risk disclosure including:

- ◆ Mandatory financial filings with securities regulators
- ◆ The Carbon Disclosure Project (CDP)
- ◆ The Global Reporting Initiative (GRI)

In addition, other critical communications with investors—including analyst briefings, and investor engagement with companies through shareholder resolutions, dialogue, and written communications—can be improved by referencing the Global Framework for Climate Risk Disclosure.

During the last ten years, an increasing number of investors have advocated for and achieved improved corporate disclosure of climate risk. They have also encouraged investment company consideration of climate risk in investment decision-making, and witnessed new government policies to set global warming emission standards that create certainty and level the playing field among all companies.

While substantial progress has been made, too few companies are seriously addressing the risks and opportunities posed by climate change, and most investment managers lack expertise in climate change or the capacity to assess its risks to portfolios. While some companies have begun to treat climate change as a fundamental strategic issue, many more are not disclosing their climate risk or plans to address it, creating uncertainty for investors and difficulty assessing the true longer-term value of their portfolios.

The Global Framework for Climate Risk Disclosure offers a clear statement on disclosure that is valuable to investors and provides guidance for companies, government securities regulators, accounting professionals, asset managers and others in the financial community.

# Using The Framework For Climate Risk Disclosure

## PURPOSE

The Global Framework for Climate Risk Disclosure is a statement of investors' expectations about the information that they need to analyze climate risk and opportunities. The Framework aims to encourage standardized climate risk disclosure so that it is easy for companies to provide and easy for investors to analyze. The Framework is not a new reporting mechanism. Instead, the investors supporting the Framework intend for companies to report through existing reporting mechanisms, including mandatory financial disclosures to securities agencies, the leading voluntary mechanisms (the Carbon Disclosure Project and the Global Reporting Initiative), and other communications with investors.

## USES

The investors supporting this Framework urge:

- Companies to use existing disclosure mechanisms to provide information that meets investors' expectations and serves their analytical needs.
- Securities regulators and governments to ensure that corporate climate risk disclosure in financial statements adhere to the Framework.
- Other investors and financial analysts to insist that corporations disclose the information called for in the Framework and then incorporate this information in their analysis.



# Risks and Opportunities

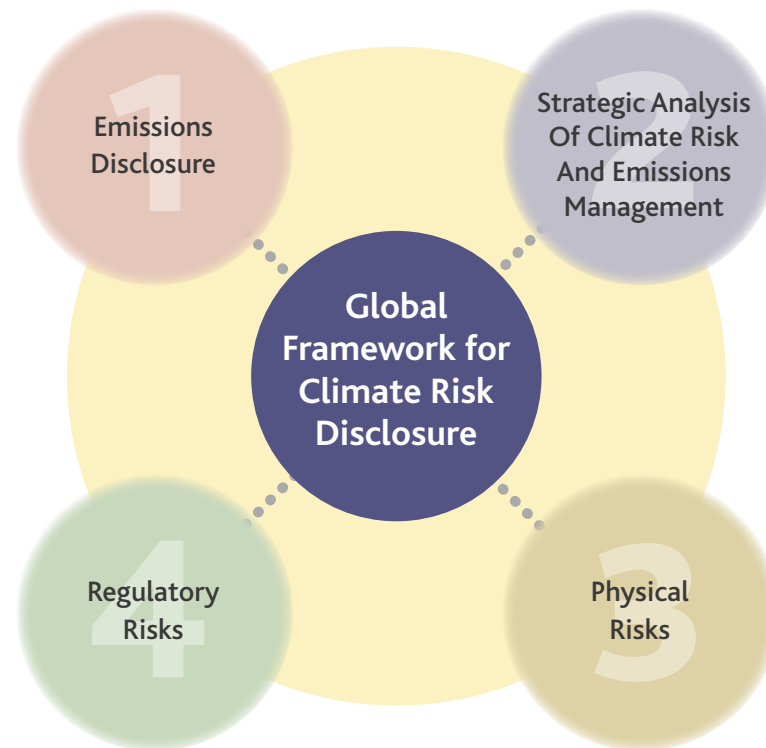
Given the sweeping global nature of climate change, climate risk and opportunity is embedded in the operations of all companies. Some companies with significant emissions of greenhouse gases or energy use face current or future regulatory risks, while climate change may pose a range of physical or financial risks to other firms.

These risks may include operational risk, physical risk, market risk, liabilities risk, policy risk, regulatory risk, and reputational risk. In some cases, even if a company is not directly subject to regulations, significant emissions in its value chain may still result in increased costs (upstream) or reduced sales (downstream). Some companies will develop profitable new technologies or markets to address climate change. Many companies are now responding with increased disclosure.

	Electric Power	Manufacturing	Auto & Transportation	Oil & Gas	Forestry	Agriculture	Fisheries	Health-care	Real Estate	Tourism	Water
Regulatory Risk	◆	◆	◆	◆	◆	◆					
Physical Risk (dependent on location)	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Competitive, Reputational Risk	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Regulatory Opportunity	◆	◆	◆	◆	◆	◆					◆
Technological Opportunity	◆	◆	◆	◆	◆	◆					◆
Competitive, Reputational Opportunity	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

## Elements Of Disclosure

While each sector and company may differ in its approach to disclosure, the most successful corporate climate change disclosure will be transparent and make clear the key assumptions and methods used to develop it. Disclosure should include the four elements shown here.



# How to Disclose

Companies should disclose climate risk via existing reporting mechanisms, since they are already in widespread use by investors and companies. These mechanisms support investors' needs for detailed qualitative and quantitative disclosure that supports rigorous analysis of risks and opportunities. For each of the four elements of the climate risk disclosure Framework described on the previous page, this Guide provides specific information about how to disclose using the most common reporting mechanisms for climate risk: the Global Reporting Initiative, the Carbon Disclosure Project, and securities filings.

While the examples of disclosure in this Guide come from GRI reports, CDP responses or other sources, it is important to note that companies often report the same information in more than one place. For example, companies regularly report climate change information to both GRI and CDP. These organizations are working closely together to ensure their work is harmonized and mutually supportive so that companies can report to both initiatives.

The following pages include:

- ◆ The text of the Global Framework
- ◆ Details on “How to Report” using existing disclosure mechanisms, and
- ◆ Examples of disclosure from leading corporations using these disclosure mechanisms.

# How to Disclose: Using Existing Mechanisms



## GLOBAL REPORTING INITIATIVE

The Global Reporting Initiative (GRI) is a sustainability reporting framework that creates Guidelines for comprehensive reporting on organizations' environmental, economic and social impact. Using the G3 Guidelines (released in October 2006), organizations can disclose significant information regarding their climate risk and opportunities. The G3 is part of the GRI Reporting Framework, which also includes other guidance on technical issues and sector-specific reporting.

G3 includes four sections covering general reporting, and one section for each of: economic indicators, environmental indicators, and social indicators.

- Sections 1.1–1.2: Strategy & Analysis
- Sections 2.1–2.10: Organizational Profile
- Sections 3.1–3.13: Report Parameters
- Sections 4.1–4.17: Governance, Commitments, & Engagement
- Section EC1–EC9: Economic Performance Indicators
- Section EN1–EN30: Environmental Performance Indicators
- Sections LA/HR/SO/PR: Social Performance Indicators

## CARBON DISCLOSURE PROJECT

### CARBON DISCLOSURE PROJECT

The Carbon Disclosure Project (CDP) is an efficient process whereby over 200 institutional investors collectively sign a single global request for disclosure of information on greenhouse gas emissions. The CDP4 request, launched in February 2006, is a 10 question survey sent to over 2,000 companies globally. CDP's web site is the largest registry of corporate greenhouse gas emissions in the world. The ten questions in CDP4 cover:\*

1. General company climate change position.
2. Regulation's effect on the company.
3. Physical risks of climate change.
4. Innovation in response to climate change.
5. Responsibility of the board in managing and disclosing climate change policies.
6. Emissions of greenhouse gases (GHGs).
7. Products and services that emit GHGs.
8. Emissions reduction strategies, costs, and implications.
9. Emissions trading plans for existing and future carbon markets.
10. Energy costs for consumption of power and impact of rising energy costs due to climate change.



## SECURITIES FILINGS

Financial regulatory bodies such as the Securities and Exchange Commission (SEC) require companies to disclose information of financial importance to the company and its shareholders, and many companies now include climate risk information in their standard financial reporting like the 10-K.

Depending on the sector, industry, and company, climate risk and mitigation plans could be discussed in the following areas of SEC 10-K reports:

1. Appendix
2. Item 1 (Rule S-K Item 101)
3. Item 1A (Key Risks)
4. Item 7 (Rule S-K Item 303) (MD&A)

## ANALYST BRIEFINGS, CLIMATE REPORTS & OTHER DISCLOSURE

Companies disclose important information to investors through other non-GRI reports, through their website, or through briefings for analysts. At the request of investors, many companies have also prepared special reports specifically on climate risk.

\*The CDP5 questionnaire is currently under development and will be sent to corporations on February 1, 2007.



# 1. Emissions Disclosure

## WHAT TO REPORT

### Global Framework, Part 1: Emissions:

As an important first step in addressing climate risk, companies should disclose their total greenhouse gas emissions. Investors can use this emissions data to help approximate the risk companies may face from future climate change regulations.

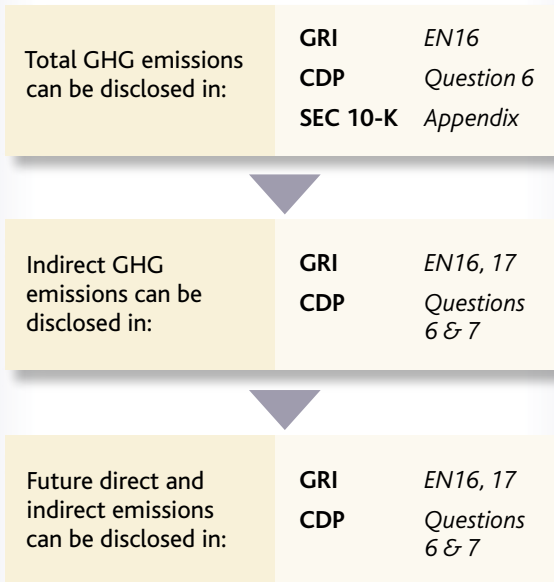
Specifically, investors strongly encourage companies to disclose:

- ◆ Actual historical direct and indirect emissions since 1990;
- ◆ Current direct and indirect emissions; and
- ◆ Estimated future direct and indirect emissions of greenhouse gases from their operations, purchased electricity, and products/services.

Investors strongly encourage companies to report absolute emissions using the most widely agreed upon international accounting standard – Corporate Accounting and Reporting Standard (revised edition) of the Greenhouse Gas Protocol, developed by the World Business Council for Sustainable Development and the World Resources Institute.\* If companies use a different accounting standard, they should specify the standard and the rationale for using it.

## HOW TO REPORT

### Emissions Reporting



\* These emissions disclosures correspond with the three "scopes" identified in the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard (revised edition) developed by the World Business Council for Sustainable Development and the World Resources Institute. Scope 1 includes a company's direct greenhouse gas emissions; Scope 2 includes emissions associated with the generation of electricity, heating/cooling, or steam purchased for a company's own consumption; and Scope 3 includes indirect emissions not covered by Scope 2. More information is available at <http://www.ghgprotocol.org>.



## GLOBAL REPORTING INITIATIVE

**Shell Canada.** Shell Canada is one of only twenty companies in North America that reports “In Accordance” with the GRI Sustainability Reporting Guidelines, the highest level of reporting. In addition to its robust and thorough GRI report, in 2005 Shell Canada released a report titled *Managing GHG Emissions*. Both reports detail the company’s GHG emissions beginning with the year 1990 and ending with expected results for 2008. The 2005 GRI report discloses both CO<sub>2</sub> emissions and those from other GHGs, and reports data both from direct and indirect sources. Shell Canada estimates emissions released in the next few years will be at levels that will allow them to meet the various goals they have set for GHG emissions reduction. By 2008, the company expects a 6% reduction in GHG emissions emitted from its core business practices (exploration & production and oil products) compared to 1990 levels.

*“To achieve continuous improvement requires accurate monitoring and measurement.”  
~Shell Canada’s 2005 GRI report*

## CARBON DISCLOSURE PROJECT

### CARBON DISCLOSURE PROJECT

**BP.** In its 2005 CDP response, BP clearly discloses historical emissions back to 1998, when the company began tracking emissions as part of a climate change plan. In addition to guiding the company to meet its reductions goals ahead of schedule in 2001, BP’s emissions tracking has provided investors and consumers with full disclosure of the climate impact of the company’s operations. The company discloses both its direct and indirect emissions, including end-use emissions from hydrocarbon products, not only in its CDP response but also in its sustainability report, and in an interactive format on its website. BP’s emissions disclosure is presented in accordance with the WBCSD/WRI GHG Protocol Corporate GHG Accounting and Reporting Standard.

*“BP’s operational emissions are publicly reported on an equity share direct basis. The equity basis includes BP’s share of emissions from all facilities wholly or partly owned by BP subsidiaries or by a joint venture entity in which BP has an interest.”  
~ BP’s CDP3 response*

### EMISSIONS REPORT

**Alcan.** The aluminum and packaging company Alcan provides excellent disclosure of its direct, indirect and historical emissions. In its stand-alone emissions report, *Targeting Climate Change*, the company discloses total CO<sub>2</sub> equivalent emissions starting in 1990. Alcan’s interactive web-based sustainability report contains recent emissions data, and an in-depth illustration of the breakdown of emissions sources into ‘direct and process,’ ‘indirect’ and ‘transportation.’ The report also discloses emissions levels per ton of product produced, per thousand \$US in sales, and by region and business group. Alcan reports emissions using the WBCSD/WRI GHG Protocol standard.

*“Our TARGET program tracks both direct and indirect emissions. Direct emissions include those released from the consumption of fuels and other carbon materials on site as well as from any other process that produces GHGs. Indirect emissions include those related to the generation of electricity by third parties used in Alcan facilities as well as the transportation of goods to the next point of use and to the customer.”  
~ Alcan 2005 emissions report*

## 2. Strategic Analysis of Climate Risk and Emissions Management

### WHAT TO REPORT

#### Global Framework, Part 2: Strategic Analysis of Climate Risk and Emissions Management:

Investors are looking for analysis that identifies companies' future challenges and opportunities associated with climate change. Investors therefore seek management's strategic analysis of climate risk, including a clear and straightforward statement about implications for competitiveness. Where relevant, the following issues should also be addressed: access to resources, the timeframe that applies to the risk, and the firm's plan for meeting any strategic challenges posed by climate risk.

Specifically, investors urge companies to disclose a strategic analysis that includes:

- ◆ **Climate Change Statement** – A statement of the company's current position on climate change, its responsibility to address climate change, and its engagement with governments and advocacy organizations to affect climate change policy.
- ◆ **Emissions Management** – Explanation of all significant actions the company is taking to minimize its climate risk and to identify opportunities. Specifically, this should include the actions the company is taking to reduce, offset, or limit greenhouse gas emissions. Actions could include establishment of emissions reduction targets, participation in emissions trading schemes, investment in clean energy technologies, and development and design of new products. Descriptions of greenhouse gas reduction activities and mitigation projects should include estimated emission reductions and timelines.
- ◆ **Corporate Governance of Climate Change** – A description of the company's corporate governance actions, including whether the Board has been engaged on climate change and the executives in charge of addressing climate risk. In addition, companies should disclose whether executive compensation is tied to meeting corporate climate objectives, and if so, a description of how they are linked.

### HOW TO REPORT

#### Strategic Analysis and Emissions Management

Disclose company climate change statement in:	<b>GRI</b>	1.1, 4.8, <i>Environmental Disclosure on Management Approach ("Environmental DMA")</i>
	<b>CDP</b>	<i>Question 1</i>

Disclose emissions management in:	<b>GRI</b>	1.1, 1.2, 4.11-13 <i>EC2 Environmental DMA; EN3-7, EN18, EN26-28</i>
	<b>CDP</b>	<i>Questions 1, 4, 8, 9</i>

Disclose corporate governance in:	<b>GRI</b>	4.1, 4.5, 4.9, <i>Environmental DMA</i>
	<b>CDP</b>	<i>Question 5</i>

Most information from this section can be disclosed in:	<b>SEC 10-K</b> <i>Item 1 (Rule S-K Item 101) Item 7 (Rule S-K Item 303: MD&amp;A)</i>
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# Examples of Strategic Analysis of Climate Risk And Emissions Management



## GLOBAL REPORTING INITIATIVE

**Dupont.** DuPont's GRI report highlights the company's position on climate change, its management structure, and its strategy to reduce GHG emissions. Dupont describes an emissions reduction strategy to reduce GHG emissions from its direct operations, as well as by creating products that will help society to decrease emissions by increasing efficiency or using renewable energy. DuPont's goal of reducing direct emissions 65% below 1990 levels by 2010 was surpassed in 2003, when the company's emissions were 72% below 1990 levels. The company's GRI report discloses that executives and board members play major roles in DuPont's climate and emissions management, exemplified by the fact that the CEO and Chairman of the Board is also the chief officer responsible for the environment.

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

~ Dupont 2005 GRI report

## CARBON DISCLOSURE PROJECT

### CARBON DISCLOSURE PROJECT

**Toyota.** In its 2005 CDP response, Toyota articulates the company's climate change policies, emissions management strategy, and corporate governance structure for managing climate change. Toyota's climate change management strategy focuses both on GHG reduction from the production of its vehicles, as well as from the sale and use of its vehicles, particularly through advances in technology and efficiency. The CDP response discloses details of management structure, demonstrating that high-level executives and board members are managing climate risks and opportunities. The company has achieved and surpassed many goals: CO<sub>2</sub> emissions per vehicle during production has fallen by 12% from 2000 levels, and overall emissions have decreased by 19% from 1990 levels (surpassing the 5% goal).

*"I like to think of it as enlightened self-interest. If automakers don't reduce smog-forming emissions, greenhouse gases, and the need for petroleum, I believe we won't be in business."*

~ Toyota President Fujio Cho (Aug. 2004)



## SECURITIES FILINGS

**Dow Chemical Co.** In its FY 2004 10-K filing, Dow reported that it reduced its greenhouse gas intensity (pounds of GHG per pound of product) by over 40% since 1995, but it did not give specific examples of how it is reducing its greenhouse gas emissions. Dow also noted that it increased its energy efficiency by 21% since 1994. The company is also creating products to help other industries become more energy efficient and reduce GHG emissions. For example, Dow is creating lightweight plastics for the auto industry and insulation for energy efficient homes. Dow also disclosed its climate risk corporate governance strategy (formation of a Climate Change and Energy Policy Strategy Board) to establish the Company's direction regarding GHG management, including GHG emissions credit trading.

*"Political debates continue about how to implement fair and effective GHG mitigation efforts. Dow takes global climate change very seriously and is not waiting for the resolution of the debate."*

~ Dow FY 2004 10-K filing

### 3. Assessment of Physical Risks

#### WHAT TO REPORT

##### Global Framework, Part 3: Assessment of Physical Risks of Climate Change:

Climate change is beginning to cause an array of physical effects, many of which can have significant implications for companies and their investors. To help investors analyze these risks, investors encourage companies to analyze and disclose material, physical effects that climate change may have on the company's business and its operations, including their supply chain.

Specifically, investors urge companies to begin by disclosing how climate and weather generally affect their business and its operations, including their supply chain. These effects may include the impact of changed weather patterns, such as increased number and intensity of storms; sea-level rise; water availability and other hydrological effects; changes in temperature; and impacts of health effects, such as heat-related illness or disease, on their workforce. After identifying these risk exposures, companies should describe how they could adapt to the physical risks of climate change and estimate the potential costs of adaptation.

#### HOW TO REPORT

##### Assessment of Physical Risks

Disclose physical risks in:

<b>GRI</b>	<i>1.1, 1.2, EC2, Environmental DMA</i>
<b>CDP</b>	<i>Question 3</i>
<b>SEC 10-K</b>	<i>Item 1A (Key Risks), Item 7 (Rule S-K Item 303)</i>

# Examples of Assessment of Physical Risks

## CARBON DISCLOSURE PROJECT

### CARBON DISCLOSURE PROJECT

**Cadbury Schweppes.** In its 2005 CDP response, Cadbury Schweppes examines how severe changes in the climate will lead to major disruption to the food product industry as a whole, as supplies of raw material are negatively affected. Additionally, the company noted that disruption of broader economic conditions in relative markets will have a negative financial impact. The company reports that while warmer weather may lead to an increased sale of beverages, if water supplies grow scarcer, the adverse impact on beverage production would be significant. To mitigate the risk of loss in the beverage industry, Cadbury Schweppes has implemented programs to reduce consumption and use of water.

*"In the event of severe climate change, it is possible that water will become an increasingly scarce resource in many parts of the world. As water is an essential ingredient for beverages and is also required to cleaning/hygiene purposes for all food manufacturing processes, this could well turn out to be the biggest potential impact for us."*  
~ Cadbury CDP3 Response



### SECURITIES FILINGS

**Millea Holdings.** Millea Holding is the first and only insurance company to examine the link between climate change and the increased frequency and severity of natural disasters in their SEC 20-F filing (for foreign corporations), and to consider the effect such changes will have on the firm. The company also reports that it mitigates the effect of these disasters through adjusting premium rates and retaining reinsurance. The firm discloses that if it cannot predict the severity of natural disasters and therefore cannot adequately reinsure such occurrences, this could significantly affect its financial position.

*"Over the past several years, changing weather patterns and climatic conditions, such as global warming, have added to the unpredictability and frequency of natural disasters in certain parts of the world and created additional uncertainty as to future trends and exposures."*  
~ Millea SEC Form 20-F (for FY ended 3/31/04)

### CLIMATE CHANGE REPORT

**Swiss Re.** As a reinsurance company, Swiss Re is charged with the task of identifying and analyzing risk for its clients. The company produced a 2005 report entitled *Risk Perception: Opportunities and Risks of Climate Change*, which discloses the challenge that the group faces with regard to the physical risks to its clients. Swiss Re states that physical risk from climate change must not only include severe weather events, such as hurricanes, but must also take into account the major effects that even slight changes in climate will bring. Swiss Re takes the position that "the insurance industry cannot solve the climate problem, but can help to handle it."

*"The insurance industry can assist in reducing climate risks by supporting a practicable approach to climate protection in line with the principle of sustainability. In its capacity as an investor, it is able to promote the transition from fossil to renewable energy forms, and to play an innovative role in developing novel, more flexible forms of adjusting to the climate."*  
~ Swiss Re Climate Change Report

## 4. Analysis of Regulatory Risks

### WHAT TO REPORT

#### Global Framework, Part 4: Analysis of Regulatory Risks:

As governments begin to address climate change by adopting new regulations that limit greenhouse gas emissions, companies with direct or indirect emissions may face regulatory risks that could have significant implications. Investors seek to understand these risks and to assess the potential financial impacts of climate change regulations on the company.

Specifically, investors strongly urge companies to disclose:

- ◆ Any known trends, events, demands, commitments, and uncertainties stemming from climate change that are reasonably likely to have a material effect on financial condition or operating performance. This analysis should include consideration of secondary effects of regulation such as increased energy and transportation costs. The analysis should incorporate the possibility that consumer demand may shift sharply due to changes in domestic and international energy markets.
- ◆ A list of all greenhouse gas regulations that have been imposed in the countries in which the company operates and an assessment of the potential financial impact of those rules.
- ◆ The company's expectations concerning the future cost of carbon resulting from emissions reductions of five, ten, and twenty percent below 2000 levels by 2015. Alternatively, companies could analyze and quantify the effect on the firm and shareowner value of a limited number of plausible greenhouse gas regulatory scenarios. These scenarios should include plausible greenhouse gas regulations that are under discussion by governments in countries where they operate. Companies should use the approach that provides the most meaningful disclosure, while also applying, where possible, a common analytic framework in order to facilitate comparative analyses across companies. Companies should clearly state the methods and assumptions used in their analyses for either alternative.

### HOW TO REPORT

#### Analysis of Regulatory Risks

Disclose quantified regulatory scenario analyses in:	<b>GRI</b>	<i>1.1, 1.2, EC2</i>
	<b>CDP</b>	<i>Questions 2, 10</i>
	<b>SEC 10-K</b>	<i>Item 7 (Rule S-K Item 303)</i>



# Examples of Analysis of Regulatory Risks

## CARBON DISCLOSURE PROJECT

### CARBON DISCLOSURE PROJECT

**Suncor.** In its 2005 CDP report, Suncor details how Canada's participation in the Kyoto protocol will result in a financial impact for the company. The report quantifies the cost of compliance based on the Canadian government's estimates of (CDN) \$15 per ton of CO<sub>2</sub> emissions to meet reduction requirements. Suncor's cost of compliance is also based on the government's emission intensity targets for the oil and gas sectors.

*"Shortly after Canada signed the Kyoto Protocol, Suncor prepared a quantitative analysis of the financial risk of compliance and publicly state that we believe the financial obligation of compliance to lie between CDN\$0.20 to \$0.27 per barrel of oil"*  
~ Suncor 2005 CDP Response



### SECURITIES FILINGS

**DaimlerChrysler.** In its FY 2004 SEC 20-F filing, DaimlerChrysler includes a detailed narrative of plausible changes in both U.S. state and federal law, including more stringent CAFE standards and requirements to reduce greenhouse gas emissions. Additionally, the company details the Kyoto Protocol's impact on its European operations. After recognizing the challenges that enacted legislation and potential future legislation present, DaimlerChrysler outlines strategies for reducing fuel consumption and exhaust emissions through three stages of technology: first, further improvement of the conventional combustion engine technology; second, development of hybrids as a bridging technology, and third, commercial development of fuel cell propulsion.

*"Should the EU Commission's target to reduce carbon dioxide emissions from new passenger cars to an average of 120 grams per kilometer become a mandatory standard, this would require us to incur significant costs to improve engine and overall efficiency and reduce vehicle weight significantly"*  
~ Daimler Chrysler SEC Form 20-F (for FY 2004)

### CLIMATE CHANGE REPORT

**AEP.** In a stand alone climate risk report, American Electric Power studied, analyzed and disclosed three future GHG regulatory scenarios: the McCain-Lieberman Climate Stewardship Act, Carper's Clean Air Planning Act and EPA's Clean Air Interstate Rule and mercury rule. AEP sought to "examine the costs to AEP of alternative scenarios and assess the impact of these uncertainties on the company's current and future capital investment decisions." AEP quantified the costs of the possible regulations and evaluated the potential impact based on such factors as the increasing costs of CO<sub>2</sub> over the next 5, 10 and 15 years. AEP's depth of analysis of regulatory scenarios indicates that the company considers climate change a key factor in its capital investment planning.

*"The company's goals are to comply with mandated emission requirements; to maintain its competitive position as a low-cost, reliable supplier of electricity; and to attract the necessary capital for these purposes. The economic impact of controlling GHG and other emissions thus depends on the company's ability to meet these goals in a fluid business setting. We believe that the actions the company has taken in anticipation of the control requirements described above have put it in a position to manage effectively their associated economic impact."*  
~ An Assessment of AEP's Actions to Mitigate the Economic Impacts of Emissions Policies, 2004



# Acknowledgments

The Global Framework for Climate Risk Disclosure was developed by an international Steering Committee of investors, investor groups, and other organizations. The Steering Committee members asked Ceres to develop this Guide to offer investors and companies straightforward guidance about using the Framework. The Steering Committee included representatives of:

- ◆ California Public Employees' Retirement System
- ◆ California State Controller's Office
- ◆ California State Teachers' Retirement System
- ◆ Carbon Disclosure Project
- ◆ Ceres and the Investor Network on Climate Risk (INCR)
- ◆ Connecticut State Treasurer's Office
- ◆ Global Reporting Initiative
- ◆ Institutional Investors Group on Climate Change
- ◆ Investor Group on Climate Change Australia / New Zealand
- ◆ United Nations Environment Programme Finance Initiative
- ◆ United Nations Foundation
- ◆ United Nations Fund for International Partnerships
- ◆ Universities Superannuation Scheme

The Steering Committee's collaboration over the past year has resulted in a Framework which serves investors' needs for analyzing climate risk in order to reduce risks to their portfolios and offers clear guidance to corporations. The authors hope this Guide serves as a useful companion tool to the Framework.

This Guide was developed by Miranda Anderson of David Gardiner and Associates (DGA). Rebecca Schlesinger of DGA and Marguerite Dorosario of Ceres researched examples of corporate disclosure used in the Guide. Members of the Steering Committee which created the Global Framework provided invaluable feedback on several drafts; they include Paul Simpson of the Carbon Disclosure Project, Sean Gilbert and Sandra Vijn of the Global Reporting Initiative, Kelly Forrest of CalPERS, Lisa Petrovic of UNEP-FI, and Stephanie Pfeiffer of the Institutional Investors Group on Climate Change. Ceres staff including Jim Coburn, Chris Fox and Mindy Lubber edited this work.

The Climate Risk Disclosure Initiative Steering Committee welcomes feedback on the Framework. For additional information on the Framework or to offer feedback, please contact:

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# Links to Examples of Corporate Disclosure

## 1. Emissions Disclosure

### GRI

**Shell Canada GRI Report:** [www.shell.com/static//ca-en/downloads/society\\_environment/sd05.pdf](http://www.shell.com/static//ca-en/downloads/society_environment/sd05.pdf)

**Managing GHG Emissions:** [www.shell.com/static//ca-en/downloads/society\\_environment/environment/managing\\_emissions\\_2004.pdf](http://www.shell.com/static//ca-en/downloads/society_environment/environment/managing_emissions_2004.pdf)

### CDP

**BP CDP3 response:** [www.cdproject.net/download.asp?file=CDP3\\_BP\\_AQ\\_3073.doc](http://www.cdproject.net/download.asp?file=CDP3_BP_AQ_3073.doc)

### Emissions Reporting

**Alcan Company website:** [www.publications.alcan.com/sustainability/2005/en/pages/data\\_ehs\\_airclimate.html](http://www.publications.alcan.com/sustainability/2005/en/pages/data_ehs_airclimate.html)

**Targeting Climate Change:** [www.alcan.com/web/publishing.nsf/content/Environment+Health+and+Safety+Home/\\$File/TARGET.pdf](http://www.alcan.com/web/publishing.nsf/content/Environment+Health+and+Safety+Home/$File/TARGET.pdf)

## 2. Strategic Analysis and Emissions Management

### GRI

**Dupont GRI Report:** [www2.dupont.com/Social\\_Commitment/en\\_US/assets/downloads/gri.pdf](http://www2.dupont.com/Social_Commitment/en_US/assets/downloads/gri.pdf)

### CDP

**Toyota CDP3 Response:** [www.cdproject.net/download.asp?file=CDP3\\_Toyota\\_AQ\\_3441.doc](http://www.cdproject.net/download.asp?file=CDP3_Toyota_AQ_3441.doc)

### SEC

**Dow Chemical SEC 10-K:** [www.dow.com/corporatereport/2004/pdfs/161-00624.pdf](http://www.dow.com/corporatereport/2004/pdfs/161-00624.pdf)

## 3. Physical Risks

### CDP

**Cadbury Schweppes CDP3 Response:** [www.cdproject.net/download.asp?file=CDP3\\_Cadbury\\_Schweppes\\_AQ\\_3081.doc](http://www.cdproject.net/download.asp?file=CDP3_Cadbury_Schweppes_AQ_3081.doc)

### SEC

**Millea Holdings SEC 20-F:** [www.sec.gov/Archives/edgar/data/1169486/000119312505192676/d20f.htm](http://www.sec.gov/Archives/edgar/data/1169486/000119312505192676/d20f.htm)

### Climate Change Report

**Swiss Re, Opportunities and Risks of Climate Change:**

[www.swissre.com/Internet/pwswpspr.nsf/alldocbyidkeylu/ULUR-5BWBKT?OpenDocument](http://www.swissre.com/Internet/pwswpspr.nsf/alldocbyidkeylu/ULUR-5BWBKT?OpenDocument)

## 4. Regulatory Risks

### CDP

**Suncor CDP3 Response:** [www.cdproject.net/download.asp?file=CDP3\\_Suncor\\_AQ\\_3412.doc](http://www.cdproject.net/download.asp?file=CDP3_Suncor_AQ_3412.doc)

### SEC

**DaimlerChrysler SEC 20-F:** [www.daimlerchrysler.com/Projects/c2c/channel/documents/830127\\_dcx\\_form20f\\_fy\\_2005.pdf](http://www.daimlerchrysler.com/Projects/c2c/channel/documents/830127_dcx_form20f_fy_2005.pdf)

### Climate Change Report

**AEP, AEP's Actions to Mitigate the Economic Impacts of Emissions Policies:**

[www.daimlerchrysler.com/Projects/c2c/channel/documents/830127\\_dcx\\_form20f\\_fy\\_2005.pdf](http://www.daimlerchrysler.com/Projects/c2c/channel/documents/830127_dcx_form20f_fy_2005.pdf)

