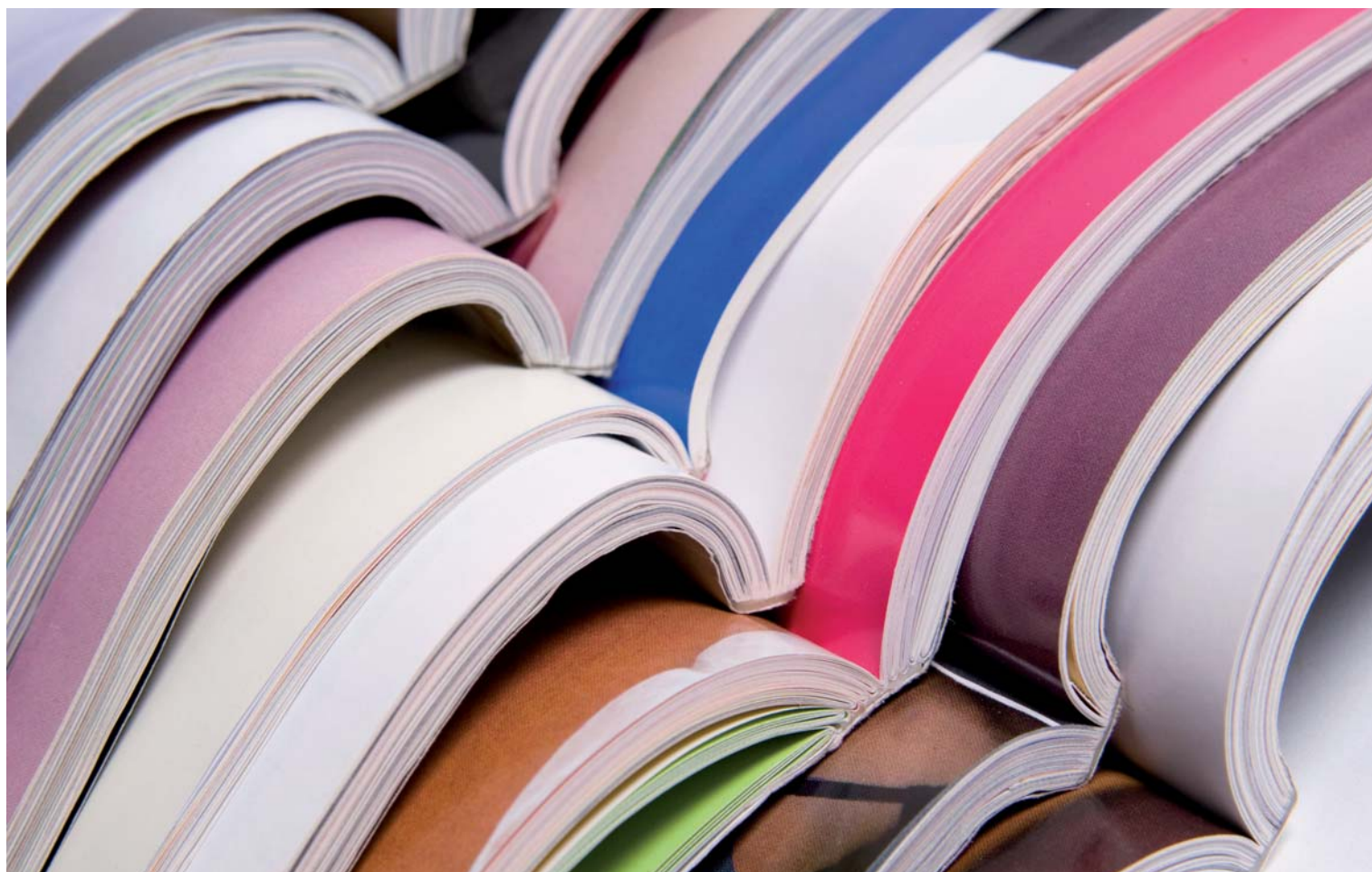


# The Climate Disclosure Standards Board (CDSB) Reporting Framework

Exposure Draft

Comments to be received by 25 September 2009



Promoting and advancing climate change-related disclosure



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# 01 Introduction





## About CDSB

CDSB is a consortium of business and environmental organizations formed for the purpose of jointly advocating a generally-accepted international framework for companies to disclose information about climate change-related risks and opportunities, carbon footprints, carbon reduction strategies, and their implications for shareholder value.

This Exposure Draft offers CDSB's proposed Reporting Framework for public consultation. The Framework is designed on a principles-based model which aims to find the right balance between rules and principles, thus allowing flexibility for judgment to be exercised by management on those aspects of climate change they consider most likely to affect the economic performance and prospects of their company. The principles-based model also allows for management's view to be balanced against the demand by users of information for greater consistency of disclosure.

Whereas many initiatives that collect information about climate change focus on the essential matter of **what** should be reported, CDSB also focuses on **how** reporting can provide investors with information that is more useful to their decision making, ("decision-useful" information), by aligning its proposed Reporting Framework to existing relevant principles and objectives of financial reporting.

In the process of continuous improvement that characterizes principles-based frameworks, CDSB aims to work toward the position reflected in its proposed Reporting Framework where decision-useful climate change-related disclosure is made in mainstream financial reports.<sup>1</sup>

### CDSB's objectives are to:

- Respond to the demand for information about how climate change affects or is likely to affect the economic performance and prospects of companies;
- Elicit disclosures in mainstream financial reports that can be integrated into investor analyses for the enhanced efficiency of capital allocation;
- Provide business with greater certainty on how to respond to demands for information about climate change;
- Align the needs of information preparers and investors by connecting financial and non-financial business reporting through a focus on how climate change affects value creation;
- Harmonize corporate climate change-related disclosure to form the common approach that is necessary for comparability and for the implementation of policies under discussion through the UN Framework Convention on Climate Change (UNFCCC) negotiations; and
- Provide conceptual and practical input into deliberations by regulatory agencies contemplating the introduction or development of requirements on corporate climate change-related disclosure.

<sup>1</sup> "Mainstream financial reports" means the annual reporting packages in which certain companies are required to deliver their audited financial results under the corporate, compliance or securities laws of the territory or territories in which they operate. See Framework paragraphs 1.3 – 1.5 for more information.

The outcome CDSB seeks is that, through adoption of its Framework, more reliable information will reach business, investors and regulators so as to support the decisions and actions they must progress in response to the risks and opportunities posed by climate change.

CDSB operates through a **Board** comprising the following members:

*Carbon Disclosure Project (& CDSB Secretariat); CERES; The Climate Group; The Climate Registry; International Emissions Trading Association; World Economic Forum (Chair and Convener); World Resources Institute.*

The Board is supported by an **Advisory Committee** of leading industrial, financial services and accounting firms as well as a number of distinguished governmental and non-governmental representatives. The Advisory Committee provides general stakeholder advice to CDSB. Advisory Committee members are:

*Alcan; American International Group; APX; Confederation of British Industry; Cravath, Swaine & Moore LLP; Duke Energy; Marsh McLennan; Royal Dutch Shell; JP Morgan Chase; Praxair Inc; Swiss Re; Tokyo Electric Power Company; SUN Group; Skadden, Arps, Slate, Meagher & Flom LLP; Institutional Investors Group on Climate Change; UK Department of Environment, Food and Rural Affairs; California State Assembly; The Carbon Trust; The Greenhouse Gas Management Institute; United Nations Environment Program Finance Initiative; United Nations Foundation.*

A **Technical Working Group (TWG)** formed of representatives of the major accounting firms and their professional bodies, makes recommendations to the Board on the development of the CDSB framework. The Technical Working Group works with the Secretariat on CDSB's work program and in particular, corporate practice, framework development and dialogue with regulators. Technical Working Group members and contributors belong to organizations that include:

*Association of Chartered Certified Accountants; Canadian Institute of Chartered Accountants; Deloitte LLP; Ernst & Young; International Federation of Accountants; Institute of Chartered Accountants in England and Wales; Japanese Institute of Certified Public Accountants; KPMG LLP; PricewaterhouseCoopers.*

Decisions on CDSB's work are made by **the Board** based on recommendations by the **Technical Working Group** and following consultation with the **Advisory Committee**.

For further information, refer to

[www.cdsb-global.org](http://www.cdsb-global.org)

## Acknowledgements

The Board gratefully acknowledges the input and commitment from the Technical Working Group members and Secretariat in developing this Exposure Draft.

Roger Adams	Association of Chartered Certified Accountants
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David Rich	World Resources Institute
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Ichiro Wakita	Deloitte LLP
Naseem Walker	KPMG LLP
Alan Willis	Canadian Institute of Chartered Accountants

CDSB also thanks [William Brocklehurst](#), [Sarah Woodthorpe](#) and [Rory Sullivan](#) of the CBI's Carbon Working Group for their input.

## Status

The proposed CDSB Framework is a voluntary disclosure Framework. While presented in the form of a draft for the disclosure of information in mainstream financial reports and aligned to relevant principles and objectives of financial reporting specified in materials published by the International Accounting Standards Board, the proposed Framework is not an IASB standard or exposure draft and neither the IASB nor its member bodies have been consulted on the positions taken in the proposed Framework. It represents twelve months of work and research by CDSB's Technical Working Group. The views expressed by the members of CDSB's TWG in preparing the proposed Framework were their own. In most cases, the professional organizations to which members belong have not fully deliberated or developed official views on the positions taken in the proposed Framework.

## 02 Foreword from the Secretariat





*“The worst-case IPCC scenario trajectories (or even worse) are being realized. For many key parameters, the climate system is already moving beyond the patterns of natural variability within which our society and economy have developed and thrived. These parameters include global mean surface temperature, sea-level rise, ocean and ice sheet dynamics, ocean acidification, and extreme climatic events. There is a significant risk that many of the trends will accelerate, leading to an increasing risk of abrupt or irreversible climatic shifts.”<sup>2</sup>*

The prospect of abrupt and irreversible climate change and the current economic crisis are both major financial events<sup>3</sup> of unprecedented scale that herald *“a fundamental rethinking of the information that corporations should be disclosing to keep investors properly informed about corporate financial prospects.”*<sup>4</sup> As understanding of the risks associated with climate change evolves, so does demand for more of the critical climate detail and analysis to move into mandatory reports.<sup>5</sup> There is widespread demand for a global reporting model *“that ensures fair and transparent markets which inspire confidence in financial reporting.”*<sup>6</sup>

CDSB is responding to these demands by proposing a single global Framework that reflects both the global nature of climate change and the gradual convergence of accounting standards, which form the foundation of financial reporting.

Beyond the doom and gloom of emerging climate science, there are also voices of hope. Speaking at the United Nations climate change negotiations in Poland in 2008, the eminent business scholar Professor C.K. Prahalad observed:

*“Global businesses are the link between millions of global consumers and thousands of suppliers all over the world. They have a huge influence over global ecosystems; not least because they have the scale, scope and infrastructure to enforce sustainable standards. We tend to forget that the most successful global institution today is global business. We cannot afford to continue to be afraid of profit motivated business driving the solutions to climate change.”*

Since 2002 the Carbon Disclosure Project (CDP) has had the privilege to receive reports from thousands of large companies regarding their greenhouse gas emissions and responses to climate change. The success of CDSB will bring some welcome order to the communication challenges that inevitably occur as the discipline of reporting on climate change evolves. The hard work of the major accounting firms, professional accounting associations and many other CDSB stakeholders has aggregated years of effort in record time.

It is my pleasure to extend sincere thanks to all those who have labored to develop this excellent Exposure Draft.

Accountants are sometimes described as bean counters, but there are times when they measure something more. As Winston Churchill observed, counting the results of what became known as the Battle of Britain: *“The odds were great; our margins small; the stakes infinite.”*



**Paul Dickinson**

CEO Carbon Disclosure Project

2 International Scientific Congress on Climate Change February 2009, Copenhagen.

3 Llewellyn, J & Chaix, C, The Business of Climate Change II, September 2007, Lehman Brothers.

4 Nusbaum, Edward, E. CEO, Grant Thornton LLP (2009) “Key Performance Indicators: A step in the direction of business reporting transparency”. Published on [www.worlddici.com](http://www.worlddici.com)

5 Smith, J. A., Morreale, M. & Mariani, M.E., Climate change disclosure: Moving towards a brave new world, Capital Markets Law Journal, August 2008, p. 17.

6 International Corporate Governance Network – Second Statement on the Global Financial Crisis 23 March 2009

## 03 Executive Summary



In January 2009, CDSB published a preliminary draft of its Reporting Framework for limited consultation. The results, which confirm support for CDSB's mission and work, together with research conducted by CDSB's Technical Working Group and comments from Board and Advisory Committee members form the basis on which CDSB's proposed Reporting Framework has been prepared.

CDSB has timed the publication of its Reporting Framework as an Exposure Draft to support the Copenhagen Climate Council's mission *"to articulate a strong, coherent and ambitious mandate...on behalf of the global business community."* The Exposure Draft is therefore being released at the World Business Summit on Climate Change in Copenhagen in May 2009 as a contribution to the innovative and visionary business response sought by the event's organizers. May 2009 will also mark the first anniversary of the agreement by G8 Environment Ministers in Kobe, Japan that carbon disclosure *"in the context of financial and capital markets, is useful to inform shareholders of significant risks and opportunities raised by climate change."*

CDSB's proposed Reporting Framework is based on the innovative work its Board members have led to establish **what** companies should report about climate change, and is complemented by a focus on **how** reporting can be made more decision-useful for investors. By adopting relevant principles and objectives of financial reporting, the Reporting Framework provides a workable filter for companies to identify, and for investors to see, the major trends and significant events related to climate change that affect a company's current or future financial condition. In doing so, the Reporting Framework links management of climate change issues with financial performance and is ready for incorporation into the mainstream reporting model with which business is already familiar.

CDSB recognizes that the release of its proposed Reporting Framework for comment comes at a time when many companies are suffering the effects of the global financial downturn and recession and that, in common with most corporate disclosure, reporting under the proposed Framework may give rise to additional costs. A formal analysis of the likely costs has not been conducted, but evidence provided by companies to CDSB Board members suggests that the costs of climate change-related disclosure vary significantly between companies. While CDSB acknowledges that costs may arise, it believes that they will be reasonable. First, because the proposed Reporting Framework is based on the work of its Board members which is already familiar to companies for example through response to the Carbon Disclosure Project and use of the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) "the GHG Protocol". Secondly, alignment to relevant principles and objectives of financial reporting rules might allow adaptation of the company's existing reporting mechanisms to include any procedures that are necessary for disclosure under the proposed Reporting Framework. CDSB has proceeded with the development of the proposed Reporting Framework on the basis that the benefits that will accrue to business, investors, and regulators through achievement of CDSB's objectives significantly outweigh the costs, by providing capital markets, business and policy makers with disclosures designed to help them act to prevent dangerous climate change and the associated costs. Furthermore, the release of CDSB's proposed Reporting Framework represents part of the process of continuous improvement that characterizes principles-based accounting standards and CDSB expects staged implementation of the Framework by companies as they develop appropriate systems, controls, and procedures.

The proposed Reporting Framework describes the reporting requirements for companies that adopt it, together with a brief guide to preparing disclosures and an illustrative example prepared by PricewaterhouseCoopers. The Framework includes Reporting Templates specifying disclosure content that reflects users' needs.

The Annex to this Exposure Draft explains the basis for conclusions reached by CDSB in drafting the Reporting Framework.

CDSB believes that *"disclosure that is meaningful and useful to the market can emerge relatively quickly if the global business community establishes a reliable international climate change disclosure format by refining and curtailing over time the best and most useful of existing practices and giving the resulting product wide distribution."*<sup>7</sup> Whilst CDSB cannot offer a comprehensive solution at this stage, the Exposure Draft and future phases of CDSB's work will be effective steps towards that goal.

7 Smith, J. A., Morreale, M. & Mariani, M.E., Climate change disclosure: Moving towards a brave new world, Capital Markets Law Journal, August 2008.



## 04 Invitation to comment





CDSB invites comments on all aspects of its Exposure Draft, the Annex and in particular on the specific questions on the following page. Climate change is too formidable a problem to be addressed by regulators alone. CDSB therefore welcomes comments on its proposed Framework from any interested party, but in particular from four main stakeholder groups:

- **Business** is invited to comment on whether and how the CDSB Framework assists them in the preparation of disclosures and in developing and implementing their business strategies to take account of climate change;
- **Investors** are invited to comment on whether the CDSB Framework contains the right factors to elicit decision-useful information and the consistency of approach that is necessary for comparability;
- **The accounting profession** is invited to comment on how the CDSB Framework assists in its role in financial reporting standards setting, and as corporate reporting advisors and assurers; and
- **Regulatory agencies** in jurisdictions that already legislate on environmental disclosures or are contemplating such legislation are invited to comment on whether the CDSB Framework provides a useful model that may form the basis for statutory disclosures.

Respondents need not comment on all of the questions and are encouraged to comment on additional issues in the Exposure Draft.

Comments should be delivered to the CDSB Secretariat by **25 September 2009**. Comments may be delivered by e-mail to [info@cdsb-global.org](mailto:info@cdsb-global.org) or by mail to:

**CDSB Secretariat**

The Carbon Disclosure Project  
40 Bowling Green Lane  
London EC1R 0NE  
United Kingdom

All responses will be put on the public record via **CDSB's website ([www.cdsb-global.org](http://www.cdsb-global.org))** unless the respondent requests confidentiality.

Comments are most helpful if they:

- Respond to the questions as stated;
- Indicate the specific section to which the comments relate;
- Contain a clear rationale; and
- Suggest alternatives that the Board should consider.

## Introductory questions

1. Do you agree that a single global framework for climate change-related disclosure in mainstream reports is necessary and/or possible, notwithstanding the background of different national developments? If not, please explain why.
2. Do you agree with CDSB's overall approach of aligning its Guiding Principles to existing relevant principles and objectives of financial reporting so as to elicit information of value primarily for investors? If not, please explain why and share with us your ideas for a new/different approach to climate change-related reporting.
3. At the current stage in its development, the CDSB Reporting Framework, including the Reporting Templates, are designed for general use by all companies within the stated scope of applicability. Do you agree that further work is required to develop the Reporting Framework, including the Reporting Templates, to take account of particular sector-specific issues related to climate change? If so, please provide your recommendations, referring to particular sector specific climate change-related initiatives if possible.

## Characterizing decision-useful information

4. Do you agree with the principles and characteristics of decision-useful information that CDSB recommends for making judgments on the information to be disclosed under CDSB's Reporting Framework? If not, what additional principles or characteristics are required, or which ones suggested in the Framework would you change?
5. Do you agree that the CDSB characteristics of decision-useful information are practical for companies to apply and sufficient to limit the amount of information disclosed to the most relevant content for users? If not, what additional guidance or information do you suggest CDSB include?

## Content

6. Do you agree with the content that CDSB recommends for potential inclusion in disclosures under the CDSB Reporting Framework? If not, what additional areas would you recommend or which types of information in the Reporting Templates would you change?
7. Does one or more of the jurisdictions in which you operate already have requirements for any of the content in the Reporting Templates to be disclosed according to local rules? If yes, are the requirements consistent with the proposed CDSB Framework including the Reporting Templates? If they are not consistent, what are the major areas of conflict or difference?
8. CDSB's proposed Reporting Framework requires companies to define and explain the performance measures and indicators they use to track and demonstrate their progress in responding to climate change. CDSB considers performance measures and indicators to be crucial elements of decision-useful information as they aid understanding and comparability over time, provided that consistent metrics are used year on year. Do you foresee particular challenges in setting and explaining performance measures and indicators, and using those metric on a consistent basis over time? If so, please explain those challenges.

## Practicalities

9. How do you anticipate information for compliance with the CDSB Reporting Framework will be collected in your organization? If possible, please state whether in-house or proprietary software is likely to be used, which departments would be involved in the collection and review of information, and how long the annual information collection process is likely to take.
10. What practical issues do you envisage when disclosing under the CDSB Reporting Framework? For example, constraints on the length of the mainstream report or particular requirements applicable in the jurisdiction in which you operate. What could CDSB do to limit any practical difficulties associated with reporting under the CDSB Reporting Framework?
11. Is there anything else of relevance you would like to raise?

# 05 The CDSB Reporting Framework



1,128,302	8,300,000	1,000,000	1,000,000
0,751,838	777,000	1,000,000	1,000,000
577,440	800,174	1,000,000	1,000,000
609,398	-	-	-
-	867	800,000	800,000
99,189	-	800,000	800,000
13,494	-	800,000	800,000
18,640	-	800,000	800,000
12,205,800	9,967,738	35,860,000	35,860,000
63	-	-	-
263	-	-	-
07,058	4,159	650,000	650,000
797,862	379,216	2,746,132	2,746,132
362,173	23,969	471,352	471,352
382,422	25,449	496,242	496,242
9,652	35	10,285	10,285
2,606	-	2,616	2,616
1,401	-	1,401	1,401
3,163,174	432,828	4,387,071	4,387,071
791,068	-	-	-
2,816	-	-	-
141,938	-	-	-
263,970	-	-	-
311,566	-	-	-
42,390	-	-	-
256,801	-	-	-
264,370	-	-	-
1,289,281	-	-	-
1,196,400	-	-	-



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Template 2: Regulatory risks from climate change

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Appendix 1

A guide to preparing disclosures under the Reporting Framework

Appendix 2

Typico plc: An illustrative example of disclosure based on the Framework

# 1. Introduction

- 1.1. This Framework is a principles-based global reporting framework for climate change-related disclosure to be used by companies in compiling their mainstream financial reports. By specifying both **what** companies should consider reporting and **how** disclosures may be made decision-useful for investors, the Framework is designed to elicit information of value to investors in gauging how climate change affects the economic performance and prospects of companies.
- 1.2. References to a “company” or “companies” in this Framework are to the group, company, companies, businesses or organizations within the scope of applicability (See Section 3) and encompass companies within the group for which consolidated financial statements are prepared (See Section 7.2).
- 1.3. **“Mainstream financial reports”** means the annual reporting packages in which certain companies are required to deliver their audited financial results under the corporate, compliance or securities laws of the territory or territories in which they operate. Mainstream financial reports are normally publicly available. They provide information to existing and prospective investors and are distinct from material published on a voluntary basis, such as corporate social responsibility reports. The exact provisions under which companies are required to deliver mainstream reports differ internationally.<sup>8</sup>
- 1.4. Mainstream financial reports include:
- **Financial statements**, which are *“the collective primary financial statements, along with notes, comprising a summary of significant accounting policies and other explanatory notes”*<sup>9</sup>, and are prepared in accordance with International Financial Reporting Standards (IFRSs). IFRSs are financial accounting standards and interpretations adopted by the International Accounting Standards Board (IASB) and their predecessor bodies; and
  - **“Other financial reporting”**, which comprises *“information provided outside financial statements that assists in the interpretation of a complete set of financial statements or improves users’ ability to make efficient economic decisions.”*<sup>10</sup> The main component of other financial reporting, which is outside the scope of IFRSs, is management commentary, also described as management discussion and analysis or MD&A. This Framework uses the term “management commentary” to encompass MD&A and descriptions of equivalent reporting used by different jurisdictions.
- 1.5. The role, parameters, and purpose of **management commentary** are under review by the IASB, which commissioned a Discussion Paper on the subject, published in October 2005 (IASB MC DP 2005). As at May 2009, CDSB relies on the Discussion Paper in so far as the principles of management commentary are relevant to the development of the Framework. IASB MC DP 2005 paragraph 19 defines management commentary as:

*“Information that accompanies financial statements as part of an entity’s financial reporting. It explains the main trends and factors underlying the development, performance and position of an entity’s business during the period covered by the financial statements. It also explains the main trends and factors that are likely to affect the entity’s future development performance and position.”*

8 A full list of mainstream reporting requirements by jurisdiction is beyond the scope of this document but examples include The Australian Corporations Act 2001, the Singapore Companies Act, the New Zealand Companies Act 2003 and the New Zealand Financial Reporting Act 1993, the US Securities and Exchange Commission Rules and the UK Companies Act 2006.

9 IAS 1 Presentation of Financial Statements paragraph 1.8.

10 Preface to International Financial Reporting Standards (IFRSs), paragraph 7.

## Framework objectives

1.6. The Framework objectives are to elicit disclosures that:

- Complement and supplement financial statements in order to meet the needs of investors;
- Inform investors what management views as the most important climate change-related issues, including risks affecting the company's economic performance and prospects;
- Enable investors to assess the strategies adopted by the company to manage those issues and the likelihood that those strategies will be successful; and
- Follow a common approach that is transparent, consistent over time, and enables comparisons to be made between companies.

## Framework characteristics

1.7. The Framework:

- Reflects the characteristics and objectives of mainstream business reporting models;
- Articulates the demand for information from investors about the way in which climate change affects or is likely to affect a company's current and future financial condition, results of operations, and cash flows;
- Addresses the challenges relating to climate change disclosure; and
- Builds upon the activities already being advanced by companies to manage and report on climate change risks, opportunities, and strategies.

## Framework influences

1.8. The Framework is based on and aims to bring together relevant principles from existing standards, models, and practices including:

- Financial reporting standards, principles, proposals and discussion papers issued or commissioned by the IASB and their predecessor bodies;
- Best practice in corporate climate change-related disclosure;
- Developments in business reporting models; and
- The work of CDSB Board Members and standard setters including the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), associated regional program protocols, and the International Organization for Standardization's ISO 14064-1 – Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals.

## 2. Framework Requirements

- 2.1. This section describes the requirements that apply to companies that adopt the Framework. The requirements are designed to support CDSB's objective of harmonizing corporate climate change-related disclosure around a common approach for the provision of consistent, transparent information over time.
- 2.2. Subject to the characteristics of decision-useful information (See Section 6), companies that adopt the Framework are required to disclose in the management commentary (See Section 5) that accompanies their financial statements, contextual information (See Section 7) and climate change-related information according to the four Reporting Templates of the Framework, covering:
- Climate change strategic analysis (Reporting Template 1);
  - Regulatory risks from climate change (Reporting Template 2);
  - Physical risks from climate change (Reporting Template 3); and
  - Greenhouse gas emissions (Reporting Template 4).
- 2.3. This Framework is intended to complement, not replace, national rules on other financial reporting or corporate disclosure<sup>11</sup> and it does not therefore describe all of the requirements that might apply to companies adopting it. The Framework should not be used on a standalone basis, but rather should be referred to in conjunction with other requirements for financial reporting and related standards and/or national corporate disclosure rules. In the event of conflict, national rules on other financial reporting or corporate disclosure take precedence over this Framework. In cases where national rules on other financial or corporate reporting apply and they cover the same information requirements as the CDSB Reporting Framework, disclosures should be made in mainstream financial reports according to the CDSB Reporting Framework in order to supplement and complement national rules.
- 2.4. The Framework focuses on eliciting information of value for investors in line with the objectives of financial reporting and existing rules and/or guidance on management commentary or equivalent. It does not supersede the need for information to be provided to wider stakeholder groups through other forms of reporting.

## 3. Scope of Applicability

- 3.1. The Framework applies specifically to:
- Companies that are required to prepare audited financial statements under International Financial Reporting Standards (IFRSs). IFRSs are accounting standards and interpretations adopted by the IASB and their predecessor bodies. Listed companies and sometimes unlisted companies are required to use IFRSs for the preparation of their financial statements in those countries which have adopted the standards;
  - Companies that prepare audited financial statements under IFRSs even where they are not required to do so;
  - Companies that are likely to be required to prepare audited financial statements under IFRSs by 2014 in accordance with statements made by national regulators about plans to adopt IFRSs;
  - Companies that are required to prepare audited financial statements under national Generally Accepted Accounting Principles and/or national IFRSs equivalents; and
  - Any other entity that elects to prepare financial statements under IFRSs.

11 For example, US publicly traded companies may use the CDSB framework to complement the requirements of Regulation S-K - Securities Act 1933 for the preparation of forms 10-K.



- 3.2. Any other company is entitled to use this Framework in whole or in part for reporting on climate change, provided that once adopted it is used in the same way as is intended for companies specifically within scope (as listed above).

## 4. Reporting period

- 4.1. Disclosures under CDSB's Framework should be made on an annual<sup>12</sup> basis for the same period covered by the mainstream report, or for a period of twelve months ending in that period which is the same length as, and may therefore be treated as co-terminus with, the period covered by the mainstream report.

## 5. Position of information in the mainstream financial report

- 5.1. Disclosures should be made in the management commentary section of the mainstream financial report (See Section 1.4). Contextual information and all details identified for disclosure under the Reporting Framework should be included in the management commentary and disclosures should not be provided by cross-referencing to information in other documents or locations.
- 5.2. There are three principal options for presenting climate change information within management commentary:
- Present a separate climate change section;
  - Present as a subheading within the risk section; and
  - Intersperse a discussion of climate change issues within various sections of the management commentary to reflect the linkages between climate change and other aspects of the company's business, such as corporate strategy, capital resources, liquidity, key performance drivers and outlook.<sup>13</sup>

Any of these approaches to presentation of information is acceptable. Where possible, best practice is to intersperse discussion on climate change issues within the relevant sections of the management commentary. However, in the early years of adoption, CDSB recommends that the Framework is used to prepare a separate climate change section in the management commentary that covers all disclosures under CDSB's Framework.

## 6. Characteristics of “decision-useful” disclosures

- 6.1. The Reporting Templates reflect the types of information that investors may regard as useful. However, the relative importance of information varies within and between companies and sectors depending upon a range of factors. Investors require qualitative and/or quantitative information that is reasonably likely to influence a decision on whether to invest or continue to invest in a company. The characteristics of decision-useful disclosures described in this section are designed to assist preparers of mainstream financial reports to decide what to include, thereby making climate change-related information useful to investors.

*“As with all [management commentary] disclosures, investors seek disclosures of material and relevant information – that is, information that would influence their decisions to invest or continue to invest in a company. Boilerplate disclosures are not useful, nor are...disclosures about every possible impact and issue related to climate change. Management is expected to exercise its judgment in selecting those disclosures material to investor decision making.”<sup>14</sup>*

<sup>12</sup> Where companies are required to produce interim management commentary or equivalent, material changes to the information recorded in the annual disclosure should be reported.

<sup>13</sup> Building a Better MD&A: Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA), p. 5

<sup>14</sup> Building a Better MD&A : Climate Change Disclosures A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA), p. 5.

- 6.2. CDSB defines the characteristics of decision-useful information by reference to the Framework’s objectives (See Section 1.6) and, based on the Framework influences (See Section 1.8), specifies three approaches that should be used individually and in combination, in order to exercise the judgment that is necessary to produce the decision-useful information that is called for in the Reporting Templates:
- Strategic focus;
  - Use of performance measures and indicators; and
  - Adherence to CDSB’s Guiding Principles.

## Strategic focus

- 6.3. Management’s view of the company’s strategy and in particular the drivers of operational performance, customers, brands and innovation, provides vital non-financial information for investors in assessing the condition of the company and the context of the climate change disclosures.<sup>15</sup> Disclosures under the Framework should therefore reflect management’s view of the way in which climate change affects company strategy.
- 6.4. Disclosure is useful when it connects the information that management uses internally for decision-making purposes about the company’s strategy, goals and objectives with what is provided externally to investors for their decision-making.<sup>16</sup>
- 6.5. Information is useful when it tells investors *“the story of how managing [climate change-related issues] helps the company to increase sales, lower costs, smooth cash flow, boost brand value and strengthen risk management”*<sup>17</sup>, and when it shows the *“linkages between corporate climate change strategies, financial performance, and GHG emission reductions.”*<sup>18</sup>

## Performance measures and indicators

- 6.6. Information enhances the quality of decision-making when it communicates details about the link between climate change performance and financial performance using specific, quantified measurements that can be used to demonstrate and track progress/efficiency. As well as the indicators suggested for best practice disclosure under Reporting Template 4, companies should disclose performance measures and indicators that are used by management to manage the business and reflect the characteristics of decision-useful information defined in the Guiding Principles below.
- 6.7. Disclosures using performance measures and indicators are useful where:
- The goals and objectives towards which performance indicators are used to measure progress are clearly stated;
  - Disclosures enable investors to understand how the measures/indicators have been defined and calculated;
  - They enhance comparability by being used consistently year on year with the results for the previous period being disclosed alongside results for the current reporting year; and
  - Disclosures explain any changes in indicators/measures or their definition or calculation and/or the circumstances in which measures/indicators may change.

15 Corporate Reporting: Is it what investment professionals expect? PricewaterhouseCoopers Corporate Reporting Survey November 2007.

16 American Institute of Certified Public Accountants, Inc (AICPA) (2008) “Assurance Services Executive Committee Whitepaper “The Shifting Paradigm in Business Reporting and Assurance” by Amy Pawlicki, Director of Business Reporting, Assurance & Advisory Services and MBRL, AICPA. On behalf of the AICPA Assurance Services Executive Committee.

17 Ethical Corporation February 2009 “Tell a Strategic Story” J Russell.

18 Kolk, A., Levy, D. and Pinkse, J., Corporate Responses in an Emerging Climate Regime: The Institutionalization and Commensuration of Carbon Disclosure’, European Accounting Review, 17:4, 719 — 745, 2008.

## The Guiding Principles

- 6.8. The Guiding Principles are attributes or qualitative characteristics of decision-useful information and they are based on the IASB's May 2008 Exposure Draft, An Improved Conceptual Framework for Financial Reporting (IASB ED 2008). As at May 2009, CDSB understands that the recommendations in the IASB ED 2008, although not formally adopted, are sufficiently representative of IASB's thinking to be relied upon in the development of the CDSB Framework. Based on the experience of its Board members and the characteristics of high quality management commentary in IASB MC DP 2005, CDSB has adapted IASB's qualitative characteristics for application to climate change-related disclosure.
- 6.9. Companies that adopt the Framework should consider what to include in their disclosures using the Guiding Principles individually and in combination.
- 6.10. In the interests of consistency with IASB's 2008 Exposure Draft, CDSB distinguishes between "fundamental" and "enhancing" characteristics which affect the usefulness of information in different ways. CDSB also recognizes the "constraining" characteristic of materiality that limits the amount of information provided, again, with the purpose of making disclosure useful.

<b>Fundamental</b>	Relevance	Faithful representation
<b>Enhancing</b>	Comparability / Verifiability	Timeliness / Understandability
<b>Constraining</b>	Materiality	Cost*

\*CDSB has not adapted the IASB's qualitative characteristic of cost for the purposes of the Framework because the Board is confident that the benefits of disclosure outweigh any additional marginal costs associated with information collection and assessment for reporting under the Framework.

## The fundamental Guiding Principles

- 6.11. CDSB's interpretation of the fundamental Guiding Principles is based on and uses actual or paraphrased text from IASB ED 2008 paragraph QC14.
- 6.12. Relevance and faithful representation are the two fundamental qualitative characteristics that information must possess in order to be useful. Information is relevant if it can affect the decisions made by users in their capacity as capital providers. Relevance helps preparers to identify **what** to report; i.e.: information that users are likely to find useful to decision making. The characteristic of faithful representation is applied to determine **how** to report the relevant information and in particular, how to depict the information qualitatively or quantitatively in a way that most faithfully represents the phenomenon in question. Relevance and faithful representation work together to contribute to the decision-usefulness of information in different ways. A depiction that is a faithful representation of an irrelevant phenomenon is not decision-useful, just as a depiction that is an unfaithful representation of a relevant phenomenon results in information that is not decision-useful. Thus either irrelevance (the information reported is not connected to the decision to be made) or unfaithful representation (the depiction is not connected to the phenomenon) results in information that is not decision-useful. Together, relevance and faithful representation make information decision-useful.

## Relevance

- 6.13. CDSB's interpretation of relevance in the context of climate change-related disclosure is based on and uses actual or paraphrased text from IASB's ED 2008 paragraphs QC3 – QC6.
- 6.14. Information is relevant if it is capable of making a difference in the decisions made by users in their capacity as capital providers. Information about climate change is capable of making a difference when it has predictive value, confirmatory value or both. Whether information about climate change is capable of making a difference is not dependent on whether the information has actually made a difference in the past or will definitely make a difference in the future. Information may be capable of making a difference in a decision – and thus be relevant – even if some users choose not to take advantage of it or are already aware of it.
- 6.15. Information about climate change has predictive value if it has value as an input to predictive processes used by capital providers to form their own expectations about the future. Information itself need not be predictable to have predictive value. Information need not be in the form of an explicit forecast to have predictive value; it needs only to be a useful input to predictive processes of use to capital providers.
- 6.16. Information about climate change has confirmatory value if it confirms or changes past or present expectations based on previous evaluations. Information that confirms past expectations increases the likelihood that the outcomes or results will be as previously expected. If the information changes expectations, it also changes the perceived probabilities of the range of possible outcomes.
- 6.17. The predictive and confirmatory roles of information are interrelated; information that has predictive value usually also has a confirmatory value. For example, information about the company's current expectations to adapt to/manage/benefit from the effects of climate change and achieve its business strategy, helps users to predict an entity's ability to take advantage of opportunities and react to adverse situations in future. The same information helps to confirm or correct users' past predictions about that ability.

## Faithful representation

- 6.18. CDSB's interpretation of faithful representation in the context of climate change-related disclosure is based on and uses actual or paraphrased text from IASB's ED 2008 paragraphs QC7 – QC11.
- 6.19. Faithful representation is attained when the depiction of relevant content under the Reporting Templates is complete, neutral and free from material error. Information about climate change may be represented in multiple ways, including qualitatively (e.g.: a narrative description of the nature of possible effects) and quantitatively (e.g.: greenhouse gas emissions).
- 6.20. Disclosure is complete if it includes all information that is necessary for an understanding of the matter that it purports to represent and does not include omissions that could cause information to be false or misleading to users.
- 6.21. Neutrality is the absence of bias intended to attain a predetermined result or to induce a particular behavior. Neutral information is free from bias so that it faithfully represents the matter that it purports to represent. Neutral information does not color the image it communicates to influence behavior in a particular direction. Climate change-related disclosures are not neutral if, by the selection or presentation of information, they influence the making of a decision or judgment in order to achieve a predetermined result or outcome. However, to say that climate change-related disclosure should be neutral does not mean that it should be without purpose or that it should not influence behavior. On the contrary, relevant climate change-related disclosure is, by definition, capable of influencing users' decisions.

- 6.22. For the purposes of management commentary, information is free from bias, or “balanced” where it does not unnecessarily overemphasize good news but deals even-handedly with both good and bad aspects.<sup>19</sup>
- 6.23. Faithful representation does not imply total freedom from error, because climate change-disclosures are generally made under conditions of uncertainty. Therefore, most climate change-related disclosures involve estimates of various types that incorporate management’s judgment. To represent climate change-related information faithfully, an estimate must be based on the appropriate inputs and each input must reflect the best available information. Completeness and neutrality of estimates (and inputs to estimates) are desirable; however, some minimum level of accuracy is also necessary for an estimate to be a faithful representation of a climate change-related phenomenon. A representation implying a degree of completeness, neutrality or freedom from error that is impracticable would diminish the extent to which the information faithfully represents the phenomena it purports to represent. Thus, to attain a faithful representation, it may sometimes be necessary to explicitly disclose the degree of uncertainty in the reported information.
- 6.24. For the purposes of management commentary, information is regarded as free from error and as a faithful representation if it is “supportable”. Information is supportable if it faithfully represents factually-based strategies, plans and risk analysis, for example. Details of measurement uncertainty represent important information.

*“Investors require sufficient information to assess the extent of the uncertainty surrounding the information to enable them to make a judgment regarding the extent to which they will rely on that information. [Management commentary] should include a cautionary note to ensure that users are made aware of areas of uncertainty; this is likely to be particularly important for forward-looking information. It is also important for management to explain any material assumptions relating to forward looking information.”<sup>20</sup>*

## The enhancing Guiding Principles

- 6.25. CDSB’s interpretation of the enhancing Guiding Principles is based on and uses actual or paraphrased text from IASB ED 2008 paragraph QC15
- 6.26. Enhancing qualitative characteristics are complementary to the fundamental qualitative characteristics. Enhancing qualitative characteristics distinguish more useful information from less useful information. The enhancing qualitative characteristics are comparability, verifiability, timeliness and understandability. These characteristics enhance the decision-usefulness of financial reporting information that is relevant and faithfully represented. The application of the enhancing qualitative characteristics is an iterative process that does not follow a prescribed order. Sometimes one or more enhancing qualitative characteristics may be sacrificed to varying degrees to maximize another qualitative characteristic. For example, a temporary reduction in comparability may be worthwhile to improve relevance or faithful representation in the longer term.

## Comparability

- 6.27. CDSB’s interpretation of comparability in the context of climate change-related disclosure is based on and uses actual or paraphrased text from IASB’s ED 2008 paragraphs QC16 – QC19.
- 6.28. Comparability is the quality of information that enables users to identify similarities in and differences between two sets of information. Consistency refers to the use of the same accounting policies and procedures, either from period to period within an entity or in a single period across entities. Comparability is the goal; consistency is the means to achieving that goal.

<sup>19</sup> IASB MC DP 2005 paragraph 80.

<sup>20</sup> IASB MC DP 2005 paragraph 75 - 76.



6.29. In the early years of its adoption, CDSB is aware that comparability of information provided under its Reporting Framework between enterprises and sectors may be limited, pending maturation of disclosure approaches. However within an entity, comparability over time should be achievable and depends primarily on consistency of approach to climate change-related reporting year on year.

## Verifiability

6.30. CDSB's interpretation of verifiability in the context of climate change-related disclosure is based on and uses actual and paraphrased text from IASB's ED 2008 paragraphs QC20 – QC21.

6.31. Verifiability is the quality of information that helps assure users that information faithfully represents the phenomena that it purports to represent. Verifiability implies that different and independent observers could reach general consensus, although not necessarily complete agreement, that either:

- The information represents that phenomena that it purports to represent without material error or bias; or
- An appropriate recognition or measurement method has been applied without material error or bias.

6.32. To be verifiable, information need not be a single point estimate. A range of possible amounts and related probabilities can also be verified.

6.33. Verification may be direct or indirect. Generally, direct verification applies to a directly measured amount (e.g.: emissions measured by continuous emissions measurement technology). Indirect verification checks the inputs and the resulting outputs by reference to the same methodology.

## Timeliness

6.34. CDSB's interpretation of timeliness in the context of climate change-related disclosure is based on and uses actual or paraphrased text from IASB's ED 2008 paragraph QC22.

6.35. Timeliness means making information available to decision makers before it loses its capacity to influence decisions. Having relevant information available sooner can enhance its capacity to influence decisions and a lack of timeliness can rob information of its potential usefulness. Some information may continue to be timely long after the end of a reporting period because some users may continue to consider it when making decisions. For example, users may need to assess trends in various items of climate change-related disclosure in making investment decisions.

## Understandability

6.36. CDSB adopts the meaning of understandability set out in IASB's ED 2008 paragraph QC23 and uses actual or paraphrased text from that paragraph.

6.37. Understandability is the quality of information that enables users to comprehend its meaning.

6.38. Understandability is enhanced when information is classified, characterized, and presented clearly and concisely. Comparability can also enhance understandability.

The actual comprehension or understanding of information depends largely on the users who may need to seek the aid of an adviser. Information that is relevant and faithfully represented should not be excluded from financial reports solely because it may be too complex or difficult for some users to understand without assistance.

## The constraining Guiding Principle

### Materiality

- 6.39. Materiality is the constraint that limits information provided in climate change-related disclosures. For the purposes of CDSB's Framework, the Guiding Principle of materiality aims to provide a *"workable filter on disclosed information, allowing investors to see major trends and significant events"*<sup>21</sup> related to climate change that affect or have the potential to affect the company's financial condition and/or its ability to achieve its strategy.
- 6.40. CDSB's interpretation of the meaning of materiality is based on and reproduces IASB's ED 2008 paragraph QC28 which states that information is material if its omission or misstatement could influence the decisions that users make on the basis of an entity's financial information. Because materiality depends on the nature and amount of the item judged in the particular circumstances of its omission or misstatement, it is not possible to specify a uniform quantitative threshold at which a particular type of information becomes material. When considering whether financial information is a faithful representation of what it purports to represent, it is important to take into account materiality because material omissions or misstatements will result in information that is incomplete, biased or not free from error.
- 6.41. *"Investors want disclosures that are material — that is, information, quantitative or qualitative, that would influence a reasonable investor in his or her decision to invest or continue to invest in a company. In considering materiality, management should consider whether the impact of a climate change issue might reasonably be expected to grow over time (possibly a few years ahead), in which case early disclosure of the matter might be important to long-term investors. This would be particularly relevant where the company is in an industry with a longer operating or investment cycle or where new technologies are going to be required."*<sup>22</sup>
- 6.42. Materiality may be determined in qualitative as well as quantitative terms. As paragraph QC 28 of IASB's ED 2008 states, it is impossible to specify a uniform quantitative threshold at which information becomes material. Similarly, CDSB does not prescribe a quantitative test or standard to identify what is material in the context of climate change-related disclosure. This is partly because determining whether information is material is a dynamic process that depends on the prevailing relevant conditions at the time of reporting and also because *"there is no consensus amongst institutional investors about the timing or extent of climate change impacts."*<sup>23</sup> In the case of climate change, the prevailing conditions might relate to developments in the reporting company's sector, the country or countries in which it operates, the price of energy, scientific findings, actual or impending regulation, and consumer behavior.
- 6.43. In the absence of tests or standards to determine materiality, companies must evaluate their own circumstances and make disclosure decisions based on the characteristics of decision-useful information that convey the relative importance management attaches to the information requested in the Reporting Templates. IASB ED 2008 paragraph QC32 describes materiality as a *"pervasive constraint"* because *"it pertains to all the qualitative characteristics of decision-useful....information."* Therefore, *"it should be considered when determining whether information has sufficient predictive or confirmatory value to be relevant to users and is sufficiently complete, neutral and free from error to represent faithfully the [content] that it purports to represent."*

21 Smith, J. A., Morreale, M. & Mariani, M.E., Climate change disclosure: Moving towards a brave new world, Capital Markets Law Journal, August 2008.

22 "Building a Better MD&A : Climate Change Disclosures (Page 5). A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA).

23 CDP Global 500 Report 2008:86.

## 7. Contextual disclosures

- 7.1. Companies that adopt the CDSB Framework must, by way of an introductory statement to their disclosures, describe the approach and/or policies used for disclosure, including an explanation of how the characteristics of decision-useful information have been applied. Companies must also provide their conclusions on what to include in the mainstream financial report in the light of the application of those principles. Where information is not disclosed in response to the recommended minimum requirements specified in the Reporting Templates, an explanation for the company's decision not to report the information concerned must be provided in all cases.

Contextual disclosures should also include:

### A description of the boundary of the reporting company

- 7.2. Disclosure under the CDSB Framework should be made for the group of companies for which consolidated financial statements are prepared under the international or national accounting standards rules that apply to the company. This is consistent with the financial control approach to organizational boundary setting in the GHG Protocol.
- 7.3. Reporting Template 4 describes how greenhouse gas emissions information calculated and reported for purposes other than mainstream financial reporting may be used, wholly or partly to satisfy reporting requirements under the CDSB Framework.
- 7.4. Where it is not possible to provide information for all companies within the group of entities for which consolidated financial statements are prepared, the parts of the organization that are excluded should be clearly noted with disclosure of the best estimate of how significant the exclusion might be. For example, groups with companies in countries that are classified as "non Annex 1 Parties" under the United Nations Framework Convention on Climate Change process may wish to caveat information provided under this Framework in relation to those operations because of concerns about the quality of information available and/or the company's determination of risk in those territories.

### Details of Standards and methodologies used for disclosure under the Templates

- 7.5. Where the Reporting Templates specify the Standard that must be used for preparation of disclosures under the CDSB Framework, companies should confirm compliance with that Standard as specified. Where no Standard is specified (e.g.: in the case of Reporting Templates 2 and 3) or where financial reporting requirements and/or related standards and national legislation governing corporate reporting take precedence over this Framework (See Section 2.3), contextual disclosures should clearly state the legislation, guidance, standard, protocol or methodology used for the preparation of disclosures under the Framework.

### Confirmation of consistency of approach

- 7.6. In accordance with the Guiding Principle of "comparability", the statement should confirm that a consistent approach to climate change-related reporting has been used from one period to the next in terms of the standards, protocols and methodologies used for disclosure and the boundary of the reporting company. Where any changes have been made, the statement should describe the justification for the change by reference to new or changed circumstances and the effect of those changes.

*“Investors seek comparability and consistency in MD&A disclosures from period to period. Climate change matters disclosed and discussed in the MD&A of a given reporting period should be measured and presented in a similar manner in future MD&As. In addition, climate change disclosures sufficiently important to have been made in prior reporting periods should not be dropped without explanation...Comparability across companies and industries with respect to GHG emissions data, trends and targets is important...[Investors] want to be informed about any material limitations in the completeness or reliability of emissions data. It is important therefore that assumptions and methodologies for emissions measurement and reporting be disclosed and be consistently applied from period to period.”<sup>24</sup>*

## 8. Assurance

- 8.1. By providing information under the CDSB Framework as part of their mainstream reporting, companies are expected to apply the same rigor, transparency, and management responsibility as is appropriate to all statements and disclosures, whether audited or not, made in the mainstream financial report.
- 8.2. Unless and until the CDSB Framework is adopted by regulators, there is no requirement for the disclosures to be audited. However, under the International Standards on Auditing (ISA 720)<sup>25</sup> it is required that the financial statements auditor read the information accompanying audited financial statements to identify any material inconsistencies and to consider any observed material misstatements of fact in those disclosures. This minimum level of auditor involvement results automatically from including climate change-related disclosure in mainstream filings.
- 8.3. Companies are, however, encouraged to work with their professional advisors to agree on an appropriate assurance approach by reference to existing assurance standards such as ISAE 3000 and ISO 14064-3.

## 9. The CDSB Reporting Templates

- 9.1. The Reporting Templates should be used to determine **what** to include in mainstream financial reports regarding climate change and **how** to make disclosures decision-useful. Each Reporting Template contains a “disclosure guide” outlining what and how to disclose subject to the information in the Framework. The content of the disclosure guides reflects the types of information that have been established by leading climate change disclosure initiatives, including the Carbon Disclosure Project, as representing information that is useful to investors. The information falls into four broad categories:
  - Climate change strategy and governance
  - Risks and opportunities
  - Greenhouse gas emissions
  - Climate change performance – mitigation of and adaptation to climate change
- 9.2. CDSB has organized these information types into Reporting Templates with disclosure guides whose emphasis reflects the Framework’s objectives. However, the Framework and Reporting Templates do not supersede the need for information to be provided to other stakeholder groups through forms of disclosure other than mainstream financial reporting. Therefore, in order to minimize reporting burdens and according to the Framework influences, the Reporting Templates replicate as far as possible the information requested by other leading climate change disclosure initiatives, so that information collected on climate change may be used for multiple purposes and reporting practices.

<sup>24</sup> Building a Better MD&A: Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA).

<sup>25</sup> The auditor’s responsibility in relation to other information in documents containing audited financial statements.

## Reporting Template 1 – Strategic analysis

### Introduction

Management's view of the company's strategy and in particular, the drivers of operational performance, customers, brands and innovation, provides vital non-financial information for investors in assessing the condition of the company,<sup>26</sup> together with details of the extent to which the implications of climate change are factored into management's determination of the company's strategy.

*"At an overview level, institutional investors are interested in disclosures that communicate whether management has factored climate change issues into its strategic analysis. In particular, how is climate change likely to impact business strategy? What are the implications of climate change for a company's competitiveness? Is climate change a threat, an opportunity or both? What is the company's strategy for achieving greenhouse gas emissions reductions? What are the strategic implications of climate change issues for non-capital resources, such as development of innovative operating technologies, brand value and reputation?"*

*It should not be assumed that investors will understand climate change issues common to a given industry. Therefore, report preparers will want to communicate the potential significance to a given company of industry-specific climate change risks. It will be particularly important to disclose whether the company has adopted climate change risk management strategies different from those of its competitors.*

*Increasingly climate change can be expected to impact many strategic factors and key performance drivers such as availability of and access to resources, raw material and production costs, supply chain arrangements and market demand for products.*

*For companies with longer operating or investment cycles, it will be important to help investors understand the impact of structural changes in markets arising from climate change adaptation and mitigation issues."<sup>27</sup>*

### Disclosure Guide

The Framework relies on management to determine the content of climate change-related disclosures based on the Reporting Templates. **However, CDSB recommends as a matter of best practice that companies should, at a minimum, provide a statement reflecting the company's position on climate change in accordance with the guidance below:**

**A statement of the company's position on climate change** including:

- Whether or not management perceives that the implications of climate change already, or will in future, impact the company's business strategy; and
- An analysis of the implications of climate change for competitiveness and access to resources.

In addition, the following information should be considered for disclosure:

An explanation of all **significant actions the company is taking to maximize opportunities associated with climate change**. This might include participation in emissions trading schemes, research and development, investment in clean energy technologies, development and design of new products and services, etc.

An explanation of all significant actions the company is taking to **minimize, manage, and/or adapt to any risks associated with climate change** that are not addressed under Templates 2 and 3.

26 Corporate Reporting: Is it what investment professionals expect? PricewaterhouseCoopers Corporate Reporting Survey November 2007.

27 Building a Better MD&A: Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA).



Risks other than physical and regulatory risks may include litigation and reputational risk.

*“Investors recognize that a company’s reputation and brand are linked to long term share value. Companies run the risk of jeopardizing such intangibles as brand value, consumer confidence, employee loyalty and timely regulatory approval of projects if they are perceived as failing to address climate change issues. As the impacts of climate change become more apparent to customers, companies that are responsible for significant greenhouse gas emissions in either the production or use of their products or services may experience a decrease in demand for the products or services in question.*

*Companies may be threatened by class action and other lawsuits brought by parties such as government bodies, communities, institutional shareholders or individuals. Heavy greenhouse gas emitters may be likely targets for such actions. In addition, corporate climate change disclosures are increasingly scrutinized by interested parties for their adequacy. To date, there are limited instances of climate change-related litigation against companies but over time this may change”.*<sup>28</sup>

Information about risks and opportunities is decision-useful<sup>29</sup> where it:

- Describes, or cross-refers to other parts of the mainstream financial report that describe the company’s process and systems for identifying risks and opportunities and for assessing the degree to which they could affect the business, including the financial implications;
- Describes the current and/or anticipated risks and opportunities and the way in which the company can influence them directly and/or indirectly through customers, supply chain, markets etc;
- Explains the way in which risks and opportunities could affect the company’s business including its value chain and estimates the financial implications;
- Describes the timeframes over which risk and opportunities are assessed and estimates when they are expected to materialize;
- Identifies the geographical areas that are likely to be affected; and
- Estimates the financial implications of the significant actions the company is taking to maximize opportunity and to minimize, manage, and adapt to risk.

GHG emissions **reduction targets** and an analysis of performance against those targets.

Information about GHG emissions reduction targets is decision-useful where it:

- Describes the nature of the plans (e.g.: whether they involve GHG emissions reductions, energy efficiency and/or diversification, managing reliance on fossil fuels and so on);
- Explains the GHG reduction target (where one is set) including:
  - The type of target, whether absolute or intensity-based,
  - The timescales over which the company aims to achieve the target,
  - The target base year and GHG emissions for that year. The base year is the first or starting year against which emissions are evaluated toward the achievement of the target,
  - An explanation of the circumstances in which the target base year emissions have been or may be re-calculated retrospectively;
- Explains other goals and timescales that have been set under the plan and the key performance indicators against which those goals will be evaluated;

28 “Building a Better MD&A : Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA) Page 7.

29 These characteristics are based on the Carbon Disclosure Project 2009 Information Request.

- Specifies the organizational boundary and the GHG emissions activities and/or, sources to which the plans apply;
- Describes the activities and investments required to achieve the plans and any risks or limiting factors that might affect achievement of the plans and/or targets; and
- Analyzes progress to date against previously set plans or targets.

Information about the **future outlook** for the company:

Information about the future outlook, including trends and factors related to climate change that are likely to affect management's view of the company's strategy for the timescales over which strategy is typically planned is useful when:

- There is a reasonable basis for it and any assumptions, uncertainties, or key dependencies that might affect it are disclosed;
- There is a direct link between the future outlook related to climate change and the company's assessment of its longer term objectives and strategies;
- It describes, or cross refers to parts of the mainstream financial report that describe long term strategic developments that may enhance opportunity or increase risk, such as organic growth, acquisitions or divestments, operational changes;
- It includes estimates of investment in or the cost of GHG abatement or climate change adaptation that could materially affect the growth, future earnings and/or direction of the company;
- It includes an estimate (together with the methodology/rationale used for the estimate) of future movements in direct and indirect GHG emissions, taking account of expected GHG emissions/energy efficiency and reduction plans; and
- It estimates any cost savings associated with GHG abatement/energy efficiency expectations.

*"To the extent that some climate change disclosures may constitute forward-looking information (FLI) as defined by securities legislation, attention needs to be paid to securities regulators' requirements related to FLI. For example, FLI should only be provided when there is a reasonable basis for it. If FLI is provided, disclosures about related risks and assumptions must accompany it, together, with necessary cautionary language. Disclosures are also needed if it becomes apparent that the forward-looking climate change information is reasonably likely to be materially different from actual results or when the FLI is withdrawn. In recognition of its potential for variability, many entities disclose forward-looking climate change information in terms of a range of possible outcomes."*<sup>30</sup>

A description of **corporate governance actions**<sup>31</sup> taken to address climate change, including:

- The governance processes and organizational resources the company has assigned to the identification and management of climate change issues;
- Whether the Board is engaged on climate change;
- How responsibility for climate change is delegated and how executives are held accountable for and/or rewarded for implementation of the company's climate change strategy;
- The nature and reliability of the underlying information and control systems used in tracking greenhouse gas emission information and providing climate change disclosures; and
- Whether the company's climate change information is subject to the same governance processes and disclosure controls and procedures as are used for other financial reporting information.

30 Building a Better MD&A : Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA).

31 Building a Better MD&A : Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA).

## Reporting Template 2 – Regulatory Risks from Climate Change

### Introduction

Regulatory risks associated with climate change pose one of the greatest immediate short term risks to companies, whilst also affecting strategic decisions about long term investments. Research conducted by the Carbon Disclosure Project in 2009 found that potential regulation on climate change was one of the main motivations for the use of climate change-related information by investors. An analysis of the material legal and financial effects that current and prospective regulation may have on the company's business and operations is therefore a potentially crucial aspect of climate change-related disclosure.

Regulatory risks generally arise from current and/or expected national and/or global governmental policy on climate change including, but not limited to known or expected effects of the imposition of GHG emissions limits, energy efficiency standards, carbon taxation, process or product standards, mandatory participation in trading schemes and so on.

### Disclosure Guide

Disclosures should include:

- A description of the existing climate change-related regulations, policies or government sponsored initiatives, including participation in carbon trading activities that affect the company;
- An overview of how and in which jurisdictions the regulations impact the business, how the rules are implemented and the associated implementation costs;
- An explanation of known or anticipated trends, events, commitments and uncertainties in climate change regulation that are reasonably likely to have a material impact on the financial condition or operating performance of the company. Disclosures might include a report on the effect on company and shareholder value of possible regulatory scenarios, including an analysis based on an appropriate range of carbon costs and the secondary effects of regulation such as increased energy and transportation costs;
- An analysis of how possible regulations to reduce GHG emissions may affect the cost of carbon and how this could impact your business; and
- A description of the way in which regulation affects or may affect the company through customers, supply chain, domestic and international markets etc.

## Reporting Template 3 – Physical Risks from Climate Change

### Introduction

The physical effects of climate change are already being observed by scientists and others and further effects are predicted. These effects include changing weather patterns, sea level rise, shifts in species distribution, changes in water availability, changes in temperature, variation in agricultural yield and growing seasons and so on. Exposure to physical risks may arise from extreme events such as intense storms and hurricane activity and/or from more subtle changes such as shifts in species distribution and increased night-time temperatures. A qualitative overview of your company's current and potential material exposure to direct and indirect physical risks due to climate change is therefore a potentially important aspect of disclosure.

### Disclosure Guide

Disclosures should include:

- Identify and describe the physical risks to which your company is exposed;
- Explain how those risks are assessed;
- Categorize risks as current, short-term, medium-term or long-term and explain the timescales involved;
- Name regions or particular locations that are particularly vulnerable to the risks you have identified, for example, because of installations based in those areas, particular vulnerability to resource shortages brought about by climate change, etc;
- Explain whether you have considered the effect of physical risks from climate change on your supply chain, your customers, and the market generally and if so, how those risks that are external to the company might affect your business and operations;
- Describe actions or plans your company is taking or may implement to mitigate against or adapt to the physical risks you have identified; and
- Describe how risk management and control measures are used in your business to manage the actual and potential physical effects of climate change.

## Reporting Template 4 – Greenhouse Gas (GHG) Emissions

### Introduction

Many companies calculate and/or disclose their GHG emissions for purposes other than mainstream financial reporting. For example, GHG emissions may be reported to the Carbon Disclosure Project, The Climate Registry or in accordance with the EU Emissions Trading Scheme. This Reporting Template is designed to ensure, as far as possible, that GHG emissions calculated and/or reported for purposes other than mainstream financial reporting may be used, wholly or partially to satisfy reporting requirements under the CDSB Framework so as to minimize duplication of work. In particular, where GHG emissions results prepared other than for mainstream financial reporting meet the following conditions, they may be used for the purposes of disclosure under the CDSB Framework:

- The GHG emissions cover the group of entities for which consolidated financial statements are prepared (See Section 7.2); and
- The GHG emissions disclosed reflect the characteristics of decision-usefulness described below.

Where these conditions are only partially satisfied, for example, the GHG emissions results prepared for purposes other than mainstream financial reporting cover some of the entities for which consolidated financial statements are prepared, disclosures under the CDSB Reporting Framework should supplement available GHG emissions information so as to satisfy the above conditions. Alternatively, companies should reconcile in qualitative or quantitative terms, the GHG emissions information that is available to satisfy the above conditions.

### Disclosure Guide

The Reporting Framework relies on management to determine the content of climate change-related disclosures based on the Reporting Templates. **However, CDSB recommends that as a matter of best practice, companies should at a minimum, disclose actual direct and certain indirect GHG emissions and GHG intensity measures.**

This is because:

- Investors have expressed a particular need for high quality quantitative data on GHG emissions that may be used for benchmarking and analyzing risks associated with future regulation to restrict or minimize GHG emissions. Information about GHG emissions is therefore *relevant* to users; and
- Standards for calculating direct and certain indirect GHG emissions are sufficiently reliable to produce *faithfully represented* disclosures.

Companies should disclose the following at a minimum for the reporting period (See Section 4) and for the group of entities within the reporting boundary of the company (See Section 7.2):

- Total gross direct (Scope 1) GHG emissions in CO<sub>2</sub> equivalent metric tonnes;
- Total gross indirect (Scope 2) GHG emissions associated with the use of purchased electricity, steam, heating and cooling in CO<sub>2</sub> equivalent metric tonnes;
- A measure of direct (Scope 1) GHG intensity by reference to the company's revenue<sup>32</sup>; and
- A measure of indirect (Scope 2) GHG intensity by reference to the company's revenue<sup>32</sup>.

32 "Revenue" means the gross inflow of economic benefits (cash, receivables, other assets) arising from the ordinary operating activities of a company (such as sales of goods, sales of services, interest, royalties and dividends). This definition is based on International Accounting Standard 18. Revenue might be described in some jurisdictions as "turnover" or "sales".



Gross emissions means total emissions that are actually emitted to the atmosphere before any deductions or other adjustments are made to take account of activities in the reporting period that have reduced or compensated for GHG emissions emitted to the atmosphere.

In order to produce consistent results, GHG emissions disclosed under the CDSB Framework should be made in accordance with one or more of the standards, national, regional or industry specific programs listed below. These are all based on the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard - Revised Edition (GHG Protocol) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). This Reporting Template adopts language from and should be read in conjunction with the GHG Protocol. In particular, the Framework uses the GHG Protocol's categorization of emissions by "Scope" in order to distinguish between direct (Scope 1) and indirect (Scopes 2 and 3) emissions, thereby ensuring, as far as possible, that double counting by organizations is minimized, or where it cannot be avoided, is identifiable. Categorization of corporate emissions sources also enables reduction activities to be identified and targeted through the value chain.

In addition, the following information should be considered for disclosure:

- A description of activities during the reporting period that have reduced or compensated for Scope 1 and/or Scope 2 GHG emissions, for example, the purchase of offset credits, acquisition of renewable energy certificates, energy/emissions efficiency gains etc. Disclosures might include, the amount in CO2 equivalents of Scope 1 and/or Scope 2 GHG emissions reduced or compensated for as a result of those activities;
- Indirect (Scope 3) emissions from sources not owned or controlled by the reporting organization but which are a consequence of the activities of the reporting organization;
- A measure of direct (Scope 1) GHG intensity by reference to non-financial output; and
- A measure of indirect (Scope 2) GHG intensity by reference to non-financial output.

## Characteristics of decision-useful information under Reporting Template 4

Information about GHG emissions is decision-useful if it is:

- Prepared by reference to one or more of the Standards, national, regional or industry specific programs listed below;
- Supplemented by contextual disclosures explaining the basis on which GHG emissions disclosures have been prepared; and
- Disaggregated/segmented to aid understanding.

Prepared by reference to one or more of the following **Standards**:

- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), (GHG Protocol) available at [www.ghgprotocol.org](http://www.ghgprotocol.org); and
- The International Organization for Standardization's ISO 14064-1 – "Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals" available at [www.iso.org](http://www.iso.org).

And/or any of the following **National or Regional programs** which are based on the GHG Protocol:

- The GHG Mexico Program;
- Philippine Greenhouse Gas Accounting and Reporting Program (PhilGARP);

- China Corporate Energy Conservation and GHG Management Program;
- Brazil GHG Protocol Program;
- The Climate Registry;
- India GHG Inventory Program; and
- The GHG Monitoring and Reporting Manual - Japanese Ministry of Environment see <http://www.env.go.jp/earth/ghg-santeikohyo/manual/index.html> (available in Japanese only).

And/or any **industry specific guidelines** based on the GHG Protocol including:

- IPIECA's Petroleum Industry Guidelines for reporting greenhouse gas emissions (2003); and
- The Aluminum Sector GHG Protocol – Addendum to the WRI/WBCSD Greenhouse Gas Protocol.

And/or **monitoring and reporting guidelines accompanying mandatory trading schemes**, including the EU Emissions Trading Scheme.

### Contextual disclosures on GHG emissions should:

- Confirm that GHG emissions disclosures relate to the group of entities for which consolidated financial statements are prepared. Where GHG emissions data has been prepared for purposes other than mainstream financial reporting and/or under other consolidation methods, the consolidation method used should be defined and GHG emissions data should be reconciled in quantitative terms (using estimates if necessary) to the GHG emissions data for the group of entities for which consolidated financial statements are prepared (See Section 7.2);
- Confirm the name or names of the Standard, national or regional program, industry guidelines or trading scheme used to calculate GHG emissions;
- State the quantification methodology for calculating GHG emissions, in particular whether results are:
  - Calculation/estimation based (e.g.: emissions factors applied to activity data, models or material/mass balance),
  - Taken from continuous or intermittent direct measurements, or
  - Based on a combination of measurement and calculation/estimation methods;
- Disclose all assumptions made in the preparation of results;
- Specify any calculation tools used to prepare results;
- Disclose emissions factors and/or the source of emissions factors used to calculate indirect emissions from activity data;
- In support of Scope 2 (indirect) GHG emissions figures companies should provide details in KWh, MWh or GWh of the purchased electricity the company has consumed;
- Disclose the global warming potentials used and the source;
- Describe the main sources of uncertainty in calculations of Scope 1 (direct) and Scope 2 (indirect) emissions e.g.: data gaps, assumptions, extrapolation, metering/measurement, inaccuracies etc;
- Describe intensity measures in accordance with Framework Section 6 so that users are able to assess the company's performance in the context of its industry sector;

- State whether Scope 1 (direct) and Scope 2 (indirect) emissions results have been verified or assured in house or by an independent third party. If so, disclosures should state what level of assurance has been provided (e.g.: limited or reasonable), the scope of emissions covered by the verification or assurance exercise and the standard(s) by reference to which the verification or assurance was conducted; and
- State whether emissions reported for the accounting year vary significantly compared to previous years and/or whether a recalculation of the base year emissions has been triggered by structural changes to the business.

### Disaggregation/segmentation of data

A segment breakdown of Scope 1 direct emissions and Scope 2 indirect emissions in CO<sub>2</sub> equivalent metric tonnes should be provided for the main countries or regions in which the reporting organization operates, taking account of local trading and regulatory reporting schemes and the relative regulatory risks in countries classified under Annex 1 and Annex 2 according to the UN Framework Convention on Climate Change process, in order to decide which segments are most exposed to risk.

Scope 1 direct and Scope 2 indirect emissions information should be further subdivided where this aids transparency, by:

- Business units/facilities;
- Source types (stationary combustion, process, fugitive, etc);
- Activity types (production of electricity, transportation, generation of purchased electricity that is sold to end users etc); and
- Each of the six “Kyoto” GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>).

CDSB does not require reporting at facility level because the focus of interest is in risk to the financial operation.

## Appendix 1 – A Guide to Preparing Disclosures under the CDSB Framework

The following guide summarizes the steps involved in determining the approach to preparing disclosures under the CDSB Framework:

### 1. Identify disclosure requirements that apply in the jurisdiction(s) in which you operate

Where the company is subject to specific legislative requirements on disclosure of any information under the Reporting Templates, those requirements take priority over the Framework. However, where any information reported to the authority governing those requirements is decision-useful to investors as defined in Section 6, CDSB recommends that it is also included in mainstream filings if not already required under the legislation concerned in order to supplement and complement legislative requirements.

### 2. Evaluate what to report, referring to a combination of:

#### a. The Reporting Templates

Use the reporting templates as a checklist for the content that may be relevant for disclosure by your company.

#### b. The Guiding Principles

Apply reasonable judgment based on the Guiding Principles, in particular relevance, timeliness and materiality in Section 6, to decide what to report.

#### c. Your business strategy

Use the group's enterprise risk management and opportunity appraisal to help identify which items in the Reporting Templates are most likely to occur and to have the greatest impact on your business strategy.

#### d. The best practice disclosure requirements

Refer to the parts of the Reporting Templates that indicate the minimum level of information regarded by users as being relevant and that should therefore be disclosed as a matter of best practice.

### 3. Determine how to report on the items identified for disclosure

The reporting process and focus will inevitably develop over time and for many companies will involve a “*multi-year*”, staged process of improving upon existing disclosures. In approaching the issue of which disclosures to concentrate on in the initial years, management will want to focus on “*what keeps or should keep the CEO and/or CFO awake at night*” in terms of risks, strategies and financial impact related to climate change.”<sup>33</sup> In determining how to report on the items identified for disclosure, it may assist to take account of the following, both individually and in combination:

33 Building a Better MD&A: Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA) Page 11.

#### a. Your Business Strategy

Disclosures should focus on how climate change-related matters impact financial operations, cash flows and the company's financial condition. This process should also be guided by the characteristics of decision-useful information, for example, faithful representation.

#### b. Financial impacts

Where possible, provide details of the current and future financial implications related to capital and operating expenditures, liquidity, commitments, liabilities or revenues associated with climate change strategies, risks and greenhouse gas emissions. Where there remains regulatory uncertainty, financial estimates can be provided in the form of ranges based on stated assumptions or scenarios.<sup>34</sup>

#### c. Communication using performance measures and indicators

Use performance indicators and measures to make communications clearer (See Section 6.6 – 6.7).

#### d. The Guiding Principles

Refer in particular to the principles of faithful representation, comparability, verifiability, understandability and materiality.

### 4. In all cases provide contextual disclosures as required in Section 7

### 5. Segment data where it assists decision-usefulness

Where it is likely to assist users to understand and use disclosures in their decision-making, information identified for disclosure should be disaggregated for business segments and geographies.

### 6. Use the illustrative example at Appendix 2

Use the Typico example as a source of ideas for how to prepare and present the disclosures you have identified as being necessary following the CDSB Reporting Framework. The Typico example helps companies in their own thinking to determine what is relevant for reporting, how they might further develop their reporting in future, and how this information could be presented.

<sup>34</sup> Building a Better MD&A: Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA).



## 7. Review the adequacy of disclosure<sup>35</sup>

Management is responsible for disclosures [made in management commentary], including those about climate change issues. Management is also responsible for the establishment, implementation and maintenance of appropriate information systems, procedures and controls to ensure that information used internally by management and disclosed externally is complete, reliable, and timely. These responsibilities are recognized in CEO and CFO certifications about regulatory reporting and related disclosure controls and procedures.

The following are some general questions that management might consider when reviewing the adequacy of its proposed management commentary disclosures about climate change:

- How have we determined which climate change issues are material and therefore require disclosure in the management commentary? Have we assessed materiality in qualitative as well as quantitative terms?
- Have we focused on the potential impact of climate change issues on longer term financial conditions, results of operations, and cash flows as well as shorter term performance?
- From period to period, is there comparability and consistency in management commentary disclosures about climate change issues?
- Have we ensured consistency of management commentary climate change disclosures with those in other public reports (e.g. sustainability reports, responses to surveys such as the Carbon Disclosure Project, press releases)?
- Have we implemented appropriate systems, procedures and controls to enable timely, complete, and reliable reporting of climate change information in the management commentary?
- Have we presented disclosures about climate change issues in plain language, with candor and without jargon?

## 8. Refer to other sources of information<sup>36</sup>

Management may also find it useful to review other sources to identify potential material disclosures including:

- Industry-Sector Research Papers: Review reports produced by industry associations and non-government organizations that research the impact of climate change issues on sectors;
- Carbon Disclosure Project: Review responses provided by the company, if applicable, and those of similar companies, to the Carbon Disclosure Project;<sup>37</sup>
- Sustainability Reports: Review sustainability reports issued by the company, if applicable, and those of companies in the same sector, to identify climate change impacts and issues. Sustainability reports are often issued subsequent to regulatory filing dates but may contain material information related to the management commentary reporting period. Companies need to ensure that their disclosure controls and procedures enable such material information to be identified on a timely basis to permit disclosure, if necessary, in the management commentary;
- Strategic Statements and Plans: Consider the extent to which climate change impacts and issues have

35 Building a Better MD&A: Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA).

36 Building a Better MD&A: Climate Change Disclosures. A Canadian Performance Reporting Board Publication (2008) for the Canadian Institute of Chartered Accountants (CICA).

37 [www.cdproject.net](http://www.cdproject.net)

been addressed in business strategies and goals for the year. Identify those internal and external climate change adaptation and mitigation issues and risks that were taken into account in development of the strategy and goals;

- Enterprise Risk Management Reports: For those companies that have implemented an enterprise risk management system, consider any climate change adaptation and mitigation risks identified therein;
- Board Minutes: Review board and relevant committee agendas, minutes and submissions to identify climate change adaptation and mitigation issues considered by the board in their oversight of strategic planning and risk management;
- Competitors' Disclosures: Review other companies' management commentary climate change disclosures, especially those of primary competitors;
- Disclosures of Award-Winning Companies: for example, the Carbon Disclosure Project Carbon Disclosure Leaders Index, FTSE 4 Good Etc;
- Analysts' and Investment Research Reports: Look at analysts' reports on your company and on competitors. Consider obtaining reports produced by investment research houses that specialize in assessing the impact of climate change issues on various industry sectors;
- Conference or Investor Presentations: Review questions and discussions at conference or investor presentations about your company or any presentations by companies in the same industry; and
- Prior Period management commentary Disclosures: Review climate change disclosures made in prior period management commentary to assess the need for updating.

# Greenhouse Gas Emissions Report

An illustration for business climate change and greenhouse gas emissions reporting



## Introduction to the document

Many companies and other corporate bodies already publicly report their greenhouse gas emissions, normally quantified in the form of carbon dioxide equivalent emissions. Usually this reporting is voluntary, although there is an increasing move in some countries towards mandatory reporting. Sometimes the information is included in Annual Reports or in annual Sustainability and Corporate Responsibility reports. Many submit information to the global Carbon Disclosure Project which is usually then available publicly. The format and composition of the information varies widely.

But what would a Greenhouse Gas Emissions Report look like? In response to a need for a “typical” format to help companies develop their own reports, PricewaterhouseCoopers has produced the attached example for a fictitious company – Typico plc. We would not advocate a completely prescriptive or “one-size-fits-all” approach, but the Typico illustration can help companies in their own thinking and help with the development of good practices.

The extent of disclosure, particularly in the management commentary, will vary according to the nature and size of the company. PricewaterhouseCoopers has suggested what it believes will be regarded as good practice for larger companies wanting to explain clearly their company’s position and performance in emissions and climate change. It is not intended to be a comprehensive list of all disclosures a company may wish to include. It is up to each company to determine what the material for inclusion to appropriately convey the impacts of climate change on the business and what is being done to respond to these. This example illustrates what a company’s reporting might look like when complying with the CDSB framework.

It is envisaged that most companies will include some climate change information in their mainstream financial reports. In addition to the full example given, a summary report is also included.

Clearly, in order to produce reliable information for the Greenhouse Gas Emissions Report, and to monitor emissions performance and management actions to achieve reductions during the year, all companies will need to consider carefully processes, systems, controls and internal reporting requirements.

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# 1. Management commentary

## 1.1. Purpose of the report and background to Typico plc

The Directors of Typico plc present the Greenhouse gas emissions report for the Typico plc group (the 'Group') for the year ended 31 December 2009. The Group's greenhouse gas emissions reporting set out below is intended to comply with the voluntary reporting requirements of the United Kingdom Climate Change Act 2008.

Typico is a UK listed technology company which produces a wide range of consumer durables as well as IT products for businesses. The Group has operations in 8 countries including substantial manufacturing facilities in Asia and the UK and R&D facilities in the UK and US. Typico's main sales markets are in Europe (44%) and the US (38%) although in recent years much of its sales growth has come from the emerging Asian economies of India and China (10%). More information on the Group can be found in our Annual Report, our Sustainability Report and on our website at [www.Typico-group.com](http://www.Typico-group.com).

## 1.2. Climate change strategy

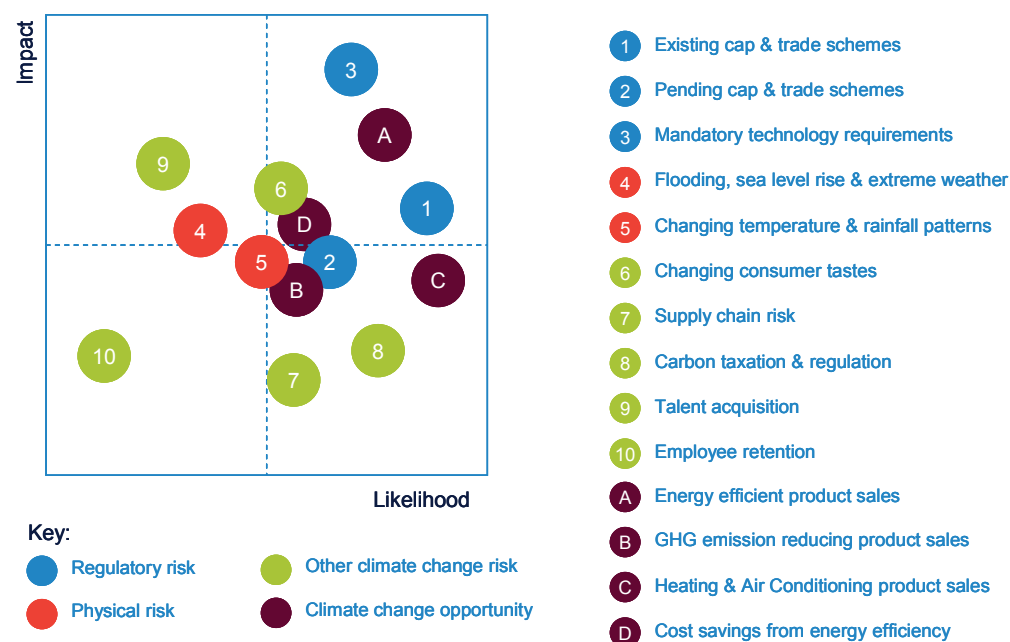
Our business strategy is shaped to respond to the risks and opportunities we face and climate change related risks and opportunities are built into this overarching strategy.

Our mission is to be the leading provider of products and services which improve the quality of people's lives without harming the environment. To deliver this we believe that we must significantly reduce Typico's own impact on climate change and at the same time adapt our business to the consequences of climate change, including taking full advantage of the opportunities presented.

Strategic aim	Strategic response
1. Significantly reduce Typico's own impact on climate change.	<p>In light of the UK Climate Change Act 2008 and consequent regulatory backdrop Typico has made a bold commitment on climate change mitigation:</p> <ol style="list-style-type: none"> <li>1. We aim to reduce our absolute GHG emissions by 26% by 2012 from a 2006 baseline year.</li> <li>2. We aim to demonstrate a net financial benefit to the business from emissions reductions activities by 2012.</li> </ol> <p>Progress against our long term targets is monitored on an annual basis and our 2009 GHG emissions statement has been assured by PricewaterhouseCoopers LLP.</p>
2. Adapt our business to the consequences of climate change including taking full advantage of the opportunities presented.	<ol style="list-style-type: none"> <li>3. Increase the share of 'eco products'* in our portfolio from 17% to 30% and increase the share of eco products in sales from 20% to 40% by 2012.</li> <li>4. Roll out our current resource optimisation pilot project to the rest of the Group by 2012.</li> </ol> <p>* 'Eco products' are Typico products which we have identified as being highly rated for energy efficiency in their market segment or products which have specific carbon mitigation potential (for example video conferencing equipment).</p>

### 1.3. Impacts of climate change on the business

The diagram and table below summarise the output of our group wide enterprise risk management and opportunity appraisal process for risks and opportunities with specific relevance to climate change.



Those risks and opportunities discussed below are only the ones most material to our business. For a fuller analysis of business risks including those illustrated here but not discussed see our Annual Report on our website.

The most immediate climate change risks are perceived to be existing cap and trade schemes, mandatory technology requirements and changing consumer tastes. Set out below is an overview of some of the risks identified and our response to their mitigation and the opportunities identified.

Risk	Implication	Response
<b>Regulatory risk</b>		
<b>1. Existing cap and trade schemes</b> A number of our manufacturing installations are currently subject to the European Emissions Trading Scheme (EU ETS) and therefore this is the main source of short term regulatory risk.	We are required to surrender sufficient allowances each year to cover GHG emissions from our installations in scope of EU ETS. If we have insufficient allowances we must either purchase allowances on the open market or pay a financial penalty equal to €100 per tonne of excess emissions.	We have adopted a conservative stance towards EU ETS by holding sufficient allowances to cover our highest potential exposure until we have more certainty over our future emissions. We do not engage in speculative allowance trading or aggressive arbitrage.

Risk	Implication	Response
<p><b>2. Pending cap and trade schemes</b></p> <p>The UK Climate Change Act includes details of the Carbon Reduction Commitment (CRC) a mandatory cap and trade scheme for business emissions not captured by EU ETS.</p> <p>The UK government has made a commitment to reduce the UK's GHG emissions by 80% by 2050 which provides a backdrop for this and other measures.</p>	<p>The proposed Carbon Reduction Commitment will require us to participate in a mandatory 'cap and trade' emissions trading scheme from 2010 onwards. This will impose an administrative cost and an up front cash requirement. Furthermore, our level of performance in the scheme will determine whether a bonus or penalty payment is imposed. In 2011 our initial calculations indicate an administrative cost of approximately £80k, and an up front cash requirement of £20.4m. Adding the opportunity cost of the capital, the administrative cost and the impact of recycling payment, the maximum cost to Typico is estimated to be £3.34m, and the maximum potential benefit £0.74m.</p>	<p>We believe that our early action on climate change will position us well for the CRC. Through further targeted initiatives we aim to achieve a high position in CRC league tables which will result in both financial and reputational benefit. Our spending on initiatives will not exceed the potential financial benefit.</p>
<p><b>3. Mandatory technology requirements</b></p> <p>Government led proposals arising from the EU Energy Using Products Directive call for the introduction of energy efficiency standards and labelling on energy using products.</p>	<p>As electrical products form a significant part of our product range this could have a major impact on our business including potential penalties for non-compliance and potential loss of competitiveness for our less energy efficient products.</p>	<p>We anticipate that our adoption of the current European voluntary code of practice for energy consumption in electrical equipment should largely fulfil future requirements; however, we are also actively developing our range of eco products to improve our competitiveness.</p>

Risk	Implication	Response
<b>Physical risk</b>		
<p><b>4. Flooding, sea level rise and extreme weather events</b></p> <p>Rising sea levels, flooding and extreme weather events already impact our business. While it appears inevitable that these effects will increase in coming years it is difficult to estimate the precise extent of the likely impacts.</p>	<p>In particular, rising sea levels and an increase in extreme weather events will increase the risk of flooding for sites located in low lying areas. For example, the storms and floods that the UK experienced over the summer 2007 had an impact on one of Typico's R&amp;D sites. The site suffered a major flood and incurred losses of around £3 million in destruction of property and lost working time. Over the long-term more extreme weather events may also lead to an increase in insurance costs and therefore require us to make costly adaptations to our buildings to deal with the increased risk. We anticipate that our total insurance costs could rise by 8% (£1.2m) by 2020.</p>	<p>Typico continues to maintain robust insurance programmes to cover such exposure.</p> <p>In anticipation of increasing insurance costs and to address the longer term risk we have also built consideration of climate change into our planning process for major infrastructure investments such that any investment over £50m with a time horizon in excess of 10 years is subject to a specific climate change risk assessment.</p>
<p><b>5. Changing temperature and rainfall patterns</b></p> <p>Changes in temperature and rainfall as a result of climate change present a risk to our established operations in a number of ways, the most direct of which is the risk of increased operating cost due to heating and cooling requirements in our facilities.</p>	<p>We have been able to track through our Group Environmental Survey how changes in weather conditions can have both negative and positive effects on our energy consumption and costs. For example, our manufacturing site in Wenzhou, China, saw a 10% increase in 2009 energy usage partly due to the increased cooling needed (295+ cooling degree days – 25% more than 2008), whereas a milder winter and summer in the UK helped achieve a 14% reduction at our offices in Birmingham, UK, as less warming and cooling was required. Our analysis indicates a negative net effect that could increase annual operating costs by 9% (£185m) by 2020.</p>	<p>In the short term we are responding by reviewing and upgrading thermal insulation at our cold climate sites. We are also instigating space heating and cooling approaches where applicable.</p> <p>To address the longer term risk we have also built consideration of climate change into our planning process for major infrastructure investments as noted above.</p>

Risk	Implication	Response
Other climate change risk		
<p><b>6. Changing consumer tastes</b></p> <p>Our customers are showing increased awareness of environmental issues and such shifts in consumer attitudes can pose a risk to the competitiveness of some of our products.</p>	<p>While we strive to ensure that our products are best in class from an energy efficiency perspective, some of the older products in our portfolio are beginning to suffer against more efficient competitor products. This is particularly evident for products where energy efficiency is already highly visible. Sales of our older kettle range declined by 13% year on year. We expect that up to 30% of our product portfolio may be impacted to some extent by this trend. An additional risk arises if our competitors are more effective at communicating their efficiency credentials.</p>	<p>We will focus much of our future R&amp;D investment on our eco products range with the aim to increase the share of eco products in our portfolio from 17% to 30% and increase the share of eco products in sales from 20% to 40% by 2012.</p> <p>We will also aim to communicate the environmental credentials through product labelling whenever appropriate.</p>

Opportunity area	Implication	Response
<p><b>A. Increased demand for the most energy efficient products in market segments.</b></p>	<p>We have observed sales growth of 4% year on year in our eco products; sales of other products in general have been flat year on year.</p>	<p>We will focus much of our future R&amp;D investment on our eco products range with the aim of increasing the share of eco products in our portfolio from 17% to 30% and increase the share of eco products in sales from 20% to 40% by 2012.</p>
<p><b>B. Increased demand for products that facilitate GHG avoidance.</b></p>	<p>As yet these products have not outperformed other segments of our portfolio however we anticipate that future regulatory changes and increased customer awareness may significantly increase demand.</p>	<p>We will continue to invest in these products and re-adjust our promotion techniques to emphasise the potential of this product class.</p>
<p><b>C. Increased demand for products that help companies and individuals adapt to climate change (e.g. air conditioning and space heating).</b></p>	<p>These products form a limited part of our portfolio at present. If adaptation becomes the focus and temperature change progresses rapidly then this may be a significant growth area.</p>	<p>We will continue to monitor the market to assess the growth potential of this segment and respond as appropriate.</p>



Opportunity area	Implication	Response
D. Cost savings as a result of emissions reduction initiatives.	The majority of emissions reduction measures we have taken to date have resulted in cost reductions and we anticipate that future measures should be equally cost effective.	We will continue to pursue all emissions reduction measures which have positive cost implications.

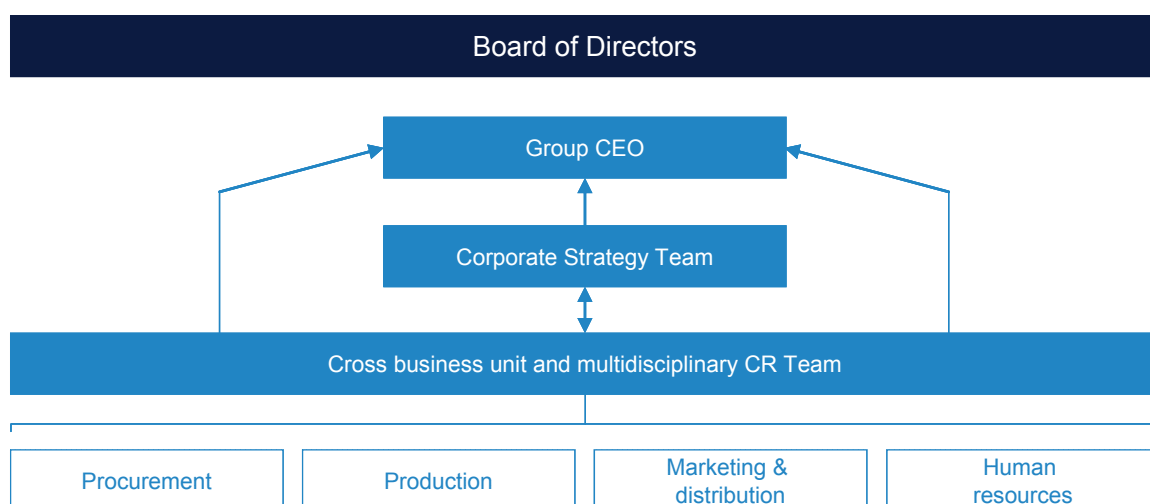
#### 1.4. Governance

Sustainability and climate change issues are integrated into our core corporate strategy, and our CEO Peter Wise is ultimately responsible for overseeing the integration into our business operations.

Reporting to our CEO is our cross business unit Corporate Responsibility (CR) Team which includes representatives from each of the Group's major business units to ensure that climate change issues are integrated throughout our Group. The CR Team are responsible for i) advising the Corporate Strategy Team on emerging developments and issues which may affect the carbon and sustainability aspects of our strategy, and ii) monitoring and advising business units on implementation of the related corporate strategy.

It should be noted that climate change is just one of a range of sustainability issues covered by this multi-disciplinary team, others include: procurement and supply chain management, waste, employee relations and stakeholder engagement.

The Group's governance structure is illustrated in the diagram below.



The CEO, as the Board member responsible for sustainability and climate change, holds quarterly meetings with the key members of the Corporate Strategy and Corporate Responsibility Teams to discuss the Group's performance against key performance indicators (KPIs). On an annual basis these meetings also review the relevance of our KPIs and the effectiveness of existing monitoring/measurement systems to provide accurate, complete and timely information sets to management. The CEO regularly reports to the Board on progress against targets and the Board annually reviews the Group's overall risk management assessment. For further information on Group governance please see our Annual Report on our website.

Our policy is to only reward behaviours that are aligned to our strategy and targets. Climate change and sustainability are significant parts of our strategy and are included in the Executive level remuneration performance assessment alongside financial and operational performance measures. The following table provides a breakdown of Board and Executive level incentives.

## Analysis of Board level remuneration related to sustainable development objectives

### Performance related pay for Executive Directors

	Executive Directors	
	Percentage of bonus opportunity on offer for target performance	Actual payment for the year (% of bonus opportunity)
Sustainable Development (15%)		
Safety	2.50%	1.19%
Climate change	5.00%	2.54%
Environment	5.00%	3.42%
Community – score in annual baseline survey	2.50%	1.33%
	<b>15.00%</b>	<b>8.48%</b>

## 1.5. Performance overview

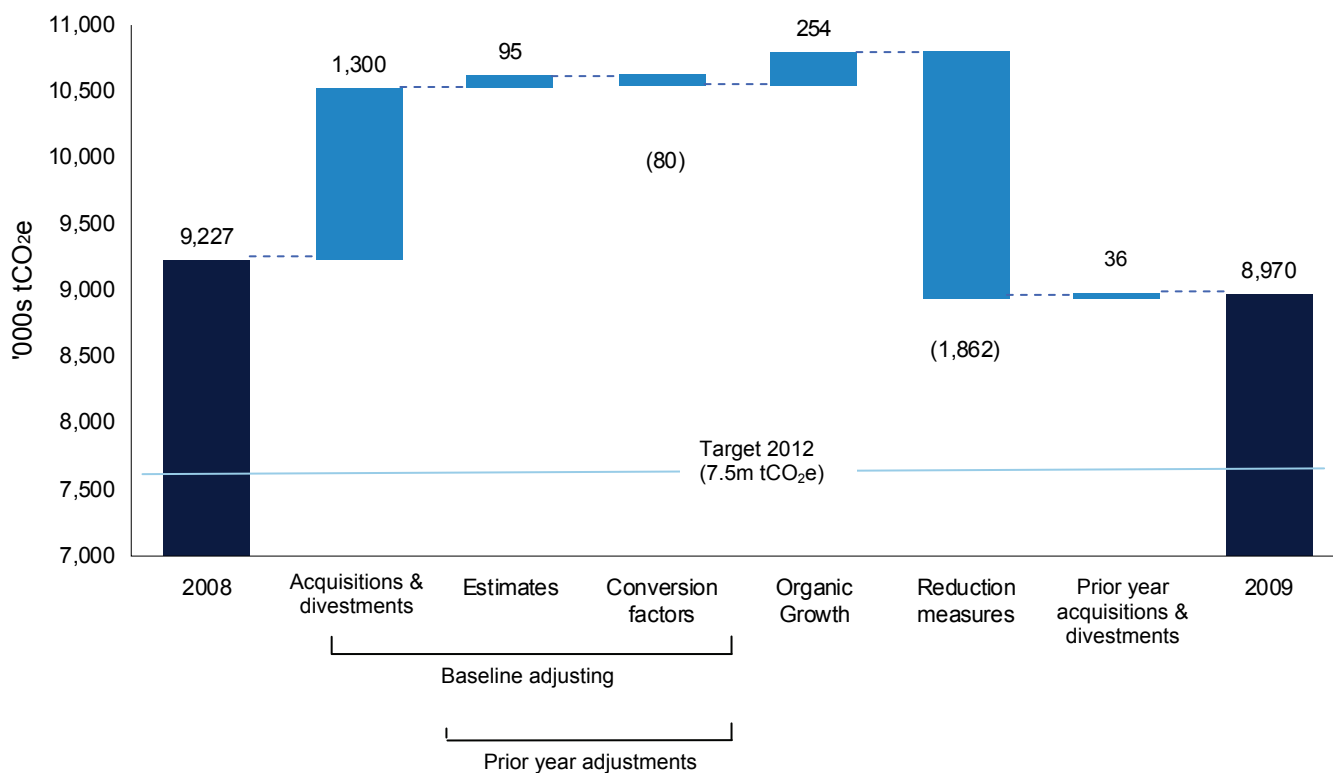
### 1.5.1. Performance Summary

Key indicators	Direct company impacts		
Climate indicators	Financial performance		Carbon emissions (total scope 1, 2 & 3 for group)
Emissions	2007 (£m)	2008 (£m)	2009 (£m)
• Net costs / (savings) from GHG reduction activities	10.2	15.1	(3.5)
• Net costs / (savings) from 'eco products'	2.3	0.7	(2.4)
• Carbon offset expenditure	6.5	7.8	9.8
<b>Net costs</b>	<b>19.0</b>	<b>23.6</b>	<b>3.9</b>

Year	Scope 1 & 2 emissions (000s tonnes)	Scope 3 emissions (000s tonnes)	CO2 intensity (000 tonnes per £m turnover)
2006	3,601	6,539	3.601
2007	3,221	6,611	3.221
2008	2,783	6,444	2.783
2009	2,074	6,896	2.074
2012	1,172	6,331	1.172

### 1.5.2. Carbon Emissions



Group GHG emissions are down for the third consecutive year, to 9.0 million tCO<sub>2</sub>e, a 2.8% reduction on 2008 levels, and our carbon intensity has also decreased from 0.651 to 0.592 tCO<sub>2</sub>e/£m revenue, an 11% reduction on 2008 levels.

### 1.5.3. Carbon Emission Reductions

Following discussions with our transportation partner, estimates in the calculation of transport miles for purchased goods led to an increase in reported emissions by 95,000 tonnes. Through engagement with this partner we have been able to share streamlining distribution systems and anticipate significant carbon savings in the future.

The acquisition of Poplar Products at the start of 2009 added a total of 1.3m tCO<sub>2</sub>e of emission. Specific conversion factors are now available for our transport fleet of plug-in hybrid vans operating across France and Germany reducing reported emissions by 80,000 tCO<sub>2</sub>e during the year.

Although organic growth would have usually led to an increase in emissions of 376,000 tCO<sub>2</sub>e this year, our carbon reduction projects have delivered both absolute and relative carbon emissions reductions of 1.9m tCO<sub>2</sub>e. These emissions reductions have mainly been due to the energy efficiency investments we have made to our manufacturing facilities over the past year, and the ongoing streamlining of our distribution to a central-hub system.

2009	Net cost saving (£'m)	Carbon emissions reduction (million tCO <sub>2</sub> e/annum)
Improved energy efficiency of manufacturing facilities	1.2	1.3
Streamlining distribution system	1.9	0.5
Other	0.4	0.1
<b>Total</b>	<b>3.5</b>	<b>1.9</b>

### 1.5.4. Financial Performance

Our performance against our financial KPIs for 2009 has shown good progress; with both our reduction activities and GHG efficient products generating positive cash flows to the business for the first time. The net cost effect from emission reduction activities, 'eco products', and the expenditure on carbon offsets results in a net cost to the business of £3.9m (2008: £23.6m).

Further cost savings, from current and planned emission reduction activities, combined with close management of future exposure to volatility in the voluntary carbon markets, will help deliver our aim to achieve a net financial benefit to the business by 2012.

#### Eco products

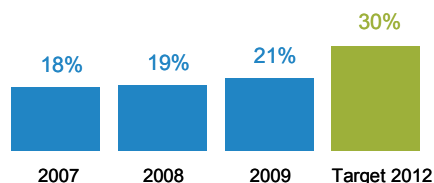
Our range of 'eco products' that deliver significantly improved energy efficiency to our customers, launched in 2008, has seen strong sales growth and at the end of 2009 had delivered a net benefit of £2.4m in profits before tax to the Group.

We expect strong consumer demand to drive annual growth of 8 – 10% per annum in this new market for the next 3 years; we would expect our strong consumer offering and brand to ensure that Typico plc maintained a significant market share.

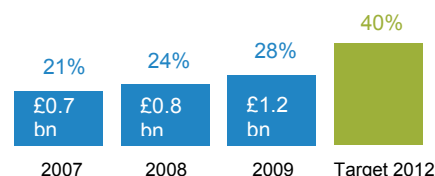
Eco Products now constitute 21% of our product portfolio, and 28% of sales – on track to meet our targets of 30% and 40% respectively by 2012.



#### Eco products as volume of portfolio



#### Eco products as volume of sales



#### GHG reduction activities

The capital expenditure invested in our first energy efficiency projects at our Toulouse, Reading and Nanjing manufacturing facilities (12% of total manufacturing facilities) delivered 0.4 mtCO<sub>2</sub>e and £1.2m savings in 2009. In addition the streamlining of our distribution system delivered net cost savings for the first time this year of £1.9m. Other reduction activities delivered net cost savings of £0.4m in the year.

#### Offset expenditure

In-line with our policy, we continue to purchase and retire the same level of offsets in a financial year as our total scope 1 & 2 emissions. For 2009 this resulted in offsets equal to 1.7 million tCO<sub>2</sub>e being purchased at a cost of £9.8m. Despite a reduction in total emissions for 2009, our offset expenditure rose due to the increased market price for offsets.

As of 1 January 2010 our treasury function manages our future exposure to volatility in the voluntary carbon market through to 2012: we expect this to minimise the cost volatility in the offsets we procure.

#### 1.6. Future outlook

We have reviewed our future targets and have found that they remain appropriate for our business and industry, and these will therefore continue to drive our KPIs and associated management reward. Although our targets for 2012 are still a significant challenge, we remain fully committed to meeting them.

We are now seeing net financial gains being delivered to the business through our action on climate change, and we feel that there are still substantial areas of our business which can deliver significant value whilst responding to climate change.

Whilst we will continue to look for opportunities to improve the efficiency of our manufacturing facilities and to further streamline our distribution system, we have identified the following as key additional focus areas up to 2012 to help us deliver on our carbon footprint target whilst delivering financial benefit to the company:

- We will be undertaking energy audits in our key warehousing facilities services to identify cost efficient opportunities to lower their carbon footprint; and,
- We will be working with our transportation partners to explore the use of alternative fuels.

The target information is based on estimates and assumptions that are subject to significant inherent uncertainties, which may be difficult to predict and may be beyond control of the Group. As with most forward looking information, there can be no assurance that targets will be realised.

## 1.7. Regulatory schemes

Typico has two manufacturing facilities that fall under the EU ETS, and as a UK-based company of sufficient size, is required to comply with the requirements of the CRC for our emissions outside of the EU ETS. Our obligations in respect of these regulations are outlined below.

EU ETS ('000 tCO <sub>2</sub> )	2009	2008	2007
Total allowances per annum	400	400	500
Actual emissions	406	389	401
<b>Net positions</b>	<b>(6)</b>	<b>11</b>	<b>99</b>

For Phase II of the EU ETS (2008–2012), Typico has an allocation of 400,000 tonnes of CO<sub>2</sub> emissions allowances per annum under the UK National Allocation Plan (NAP), compared to 500,000 tonnes per annum for Phase I (2005–2007).

Our CO<sub>2</sub> emissions allowances requirement for the year ended 31 December 2009, in excess of those allocated under the UK NAP, was approximately 6,000 tonnes compared to a surplus in 2008 of approximately 11,000 tonnes.

The price for EU-ETS Phase II CO<sub>2</sub> emissions allowances began in 2009 at approximately €15.50 per tonne. As commodity prices fell back and industrial demand reduced in response to the economic climate, carbon prices fell significantly over the first quarter reaching lows of around €8.50 per tonne. As the European economies started to show signs of stabilisation, and then modest growth in parts, through the rest of 2009, power and coal price rises were reflected in the carbon price that steadily rose to close the year at €22.40 per tonne at 31 December 2009.

As a result, the average price expended for purchased CO<sub>2</sub> emissions allowances during the year ended 31 December 2009 was €17.40 per tonne, compared to €19.50 per tonne in 2008.

### The CRC and Carbon reporting

*Comment. The CRC is a future requirement (starts in 2010) that is aimed at all large companies and organisations are likely to report. DEFRA has not outlined any formal reporting requirement for the CRC further than annual reporting of emissions included in the scheme (as at 1 March 2009). The example below is for illustrative purposes only.*

CRC (starts 2010)	2012	2011	2010
Emissions (MtCO <sub>2</sub> e)*	0.7	0.8	0.9
Net cash position (£m)	0.6	(2.8)	-
Position in sector league table	3rd	6th	7th

\* UK-based CO<sub>2</sub>e emissions from all their fixed point energy sources.

As a result of our continued investment in low-carbon technologies within our business and supply-chain, our emissions under the CRC have steadily decreased. This has been reflected in our improved CRC league table position where this year we are the third highest placed in our sector, and our net cash position (i.e. after the recycle payment has been made) is positive for the first time since the CRC commenced.

### 1.8. Statement of Directors' responsibility and approval

The Directors are responsible for preparing the Greenhouse Gas Emissions Report, for selecting appropriate reporting policies, for making appropriate judgements and estimates, for presenting the information fairly and in accordance with the UK Climate Change Act 2008 regulation, and for maintaining records from which to prepare the report. This Greenhouse Gas Emissions Report was approved by the Board on 20 April 2010.

Peter Simmons

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Company secretary

## 2. Primary statement of greenhouse gas emissions for the Group

### Summary of GHG emissions for the year ended 31 December 2009

CO <sub>2</sub> e emissions ('000 tonnes)	Note	Performance		Adjusted Baseline 2006	Target 2012	Percentage Change	
		2009 Assured*	2008			2008/ 2009	2006/ 2009
Scope 1	2,3,4	432	521	645	364	-17%	-33%
Scope 2	2,3,4	1,293	1,386	1,494	1,038	-7%	-13%
<b>Total gross controlled emissions</b>	2,3,4	<b>1,725</b>	<b>1,907</b>	<b>2,139</b>	<b>1,402</b>	<b>-10%</b>	<b>-19%</b>
Scope 3	2,3,4	7,245	7,320	8,001	6,101	-1%	-9%
<b>Total gross emissions</b>	2,3,4	<b>8,970</b>	<b>9,227</b>	<b>10,140</b>	<b>7,503</b>	<b>-3%</b>	<b>-12%</b>
Renewable electricity purchased in the UK	1.9	(12)	(89)	-	-		
Renewable electricity sold to grid		(946)	(500)	-	(1,038)		
Voluntary carbon offsets		(1,725)	(1,907)	-	(1,402)		
<b>Net emissions</b>		<b>6,287</b>	<b>6,731</b>	<b>10,140</b>	<b>5,063</b>	<b>-7%</b>	<b>-38%</b>

### Greenhouse gas emission intensity

CO <sub>2</sub> e '000 tonnes / £m turnover	Industry benchmark <sup>#</sup>	2009	2008	Baseline 2006	Target 2012
Scope 1	0.150	0.100	0.157	0.229	0.057
Scope 2	0.400	0.299	0.418	0.531	0.162
Scope 3	1.500	1.675	2.208	2.841	0.953
<b>Total</b>	<b>2.050</b>	<b>2.074</b>	<b>2.783</b>	<b>3.601</b>	<b>1.172</b>

<sup>#</sup> [Description of industry benchmark used]

\* The assurance report on page 23 covers only 2009 performance information in this statement and the accompanying notes.

## 3. Notes

### 3.1. Note 1: Greenhouse gas reporting policies

This Greenhouse gas emissions report has been prepared based on a reporting year of 1 January to 31 December, unless otherwise stated. This is the same as the Group's financial reporting period.

The greenhouse gas emissions data have been prepared with reference to the WRI/WBCSD Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition and in accordance with the guidance for corporate reporting issued by DEFRA.

A summary of the key reporting policies is set out below, together with an explanation of where changes have been made from policies in the previous year. The complete GHG reporting policies can be found at [www.typico-group.com](http://www.typico-group.com)

#### 1. Greenhouse gases

All Greenhouse Gas (GHG) emissions figures are in tonnes of carbon dioxide equivalents (CO<sub>2</sub>e) and include three of the six greenhouse gases covered by the Kyoto Protocol – carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and Nitrous oxide (N<sub>2</sub>O). Perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and sulphur hexafluoride (SF<sub>6</sub>) emissions have been omitted from our reporting as they are not a material source of greenhouse gases for the business.

#### 2. Organisational boundary

Direct GHG emissions and indirect GHG emissions from electricity have been reported from companies where the Group has financial control (as defined by the GHG Protocol). 100% of emissions for entities within the organisational boundary have been reported. For joint ventures, Typico's share of the joint ventures' emissions is included based upon its equity share of the joint venture for financial reporting purposes.

Specifically excluded from the organisational boundary are fixed asset investments and associates. Where material, emissions from these operations have been included within Scope 3 emissions reporting.

#### 3. Operational boundary

All Scope 1 (direct GHG emissions) and Scope 2 (indirect GHG emissions) have been reported for operations within the organisational boundary.

Where appropriate, emissions from shared offices or warehouse space are determined on the basis of the leased floor area.

A list of Scope 3 emissions is set out in Note 2, along with a description of other significant Scope 3 emissions currently excluded from the Group's reporting and material assumptions made.

Emissions from entities acquired during the year are included from the date of acquisition and emissions from entities disposed of during the year are included up to the date of disposal.

#### 4. Geographic scope

GHG emissions that fall within the organisational and operational boundaries have been reported for all global operations.

#### 5. Conversion factors

The carbon dioxide emissions associated with the activities noted above have been determined on the basis of measured or estimated energy and fuel use, multiplied by relevant carbon conversion factors.

Where possible fuel or energy use is based on direct measurement, purchase invoices or actual mileage data, in other cases it has been necessary to make estimations. Specific estimations have been made including in relation to public transport and taxis based on expenditure and using standard tariff information.

## Notes (continued)

Published national conversion factors were used to calculate emissions from operations. In the absence of any such national data DEFRA's 'Greenhouse Gas Conversion Factors for Company Reporting' have been used for the calculation of GHG emissions.

Emissions source:	Conversion factor employed:
UK	DEFRA, 2008
US	US EPA, 2008
China	China's Regional Grid Baseline Emission Factors 2007
Other	DEFRA, 2008

### 6. Baseline GHG emissions

The GHG baseline applies to Scope 1, Scope 2, and Scope 3 emissions as set out above and has been prepared in accordance with the GHG reporting policies set out here. The baseline is adjusted when new sources of Scope 3 emissions are reported.

The base year was set as 2006 as this was the first year the organisation reported detailed greenhouse gas emissions. The appropriateness of the base year is reviewed on an annual basis.

The baseline is adjusted to reflect acquisitions and divestments that result in a change to the baseline of more than 5% and for any significant changes in reporting policy.

### 7. Prior year restatements

Where information is available, prior year figures have been restated to comply with the reporting policies set for the current year. Where information is not available estimates are made. The estimates and basis for the estimates are provided as a footnote to the relevant notes. Where significant adjustments have been made a note detailing the adjustments is provided.

### 8. Materiality

Emissions from the following sources have not been reported as they contribute, in aggregate, less than 5% to overall Scope 1 and Scope 2 emissions:

- Refrigeration gas losses
- Fuel use from back-up generators

### 9. Renewable electricity

GHG emissions associated with renewable electricity purchased in the UK is included within the reported Scope 2 emissions by converting the electricity used to GHG emissions using standard grid factors, in line with current DEFRA requirements. These emissions are then deducted when reporting net emissions.

For renewable electricity purchased outside the UK and produced and used by the Group, no emissions are reported.

### 10. Carbon offsetting

The Group has chosen to offset all reported Scope 1 and Scope 2 emissions for each financial year.

The group purchases and retires Voluntary Carbon Standard (VCS) verified Voluntary Carbon Units (VCUs) from emission reduction projects in India and Brazil that cover a range of technologies, including renewable energy and energy efficiency measures. Our policy precludes the purchase of large-scale hydro and industrial gas abatement projects.

The VCUs are purchased and retired on our own account within the VCS registry within 60 days of the 31 December of the applicable financial year.



## Notes (continued)

### 3.2. Note 2: Emissions source

Emission Source (CO <sub>2</sub> e '000 tonnes)	Performance		Baseline	Target
	2009	2008	2006	2012
<b>Scope 1</b>				
Gas consumption – manufacturing	146	187	243	128
Gas consumption – other	98	145	190	98
Logistical transport	188	189	212	138
<b>Total Scope 1 Emissions</b>	<b>432</b>	<b>521</b>	<b>645</b>	<b>364</b>
<b>Scope 2</b>				
Purchased electricity*	1,293	1,386	1,494	1,038
<b>Total Scope 2 Emissions</b>	<b>1,293</b>	<b>1,386</b>	<b>1,494</b>	<b>1,038</b>
<b>Scope 3</b>				
Distribution of finished goods	987	1,159	656	999
Transportation of purchased goods	3,795	3,978	4,221	3,071
Transportation of waste	84	93	140	72
Disposal of waste generated in operations	245	264	336	274
Employee commuting	645	698	1,001	687
Business travel	1,489	1,128	1,647	998
<b>Total Scope 3 Emissions</b>	<b>7,245</b>	<b>7,320</b>	<b>8,001</b>	<b>6,101</b>
<b>Total Group Emissions</b>	<b>8,970</b>	<b>9,227</b>	<b>10,140</b>	<b>7,503</b>

\* UK government guidelines are that emissions from UK renewable electricity purchased should be accounted for as if from grid. This figure includes 12,000 tCO<sub>2</sub>e (2008:89,000 tCO<sub>2</sub>e) related to electricity purchased in the UK from renewable sources.

Scope 3 emissions associated with embodied carbon in purchased goods, use of products and the outsourced production of packaging are currently excluded from the Group's reporting. This activity is likely to contribute significant Scope 3 emissions. The Group is currently working with its suppliers and customer representatives to collect the information necessary to report these emissions in the future.

Within the calculation of the Scope 3 emissions source, the following key assumptions about boundary setting have been applied: from factory door to store where our goods are sold for distribution of finished goods; from tier one supplier to factory door for transportation of purchased goods; from our operations to site of disposal for transportation of waste, while disposal of waste incorporates the biodegrading of the materials sent to land site only; distance travelled by each employee to their place of work within the group for employee commuting. Business travel includes air travel, rail travel and road travel not in the Group's cars. The appropriate conversion factor for the method of transportation is applied to the distance travelled. For further information see our detailed GHG reporting policies on our website.

## Notes (continued)

### 3.3. Note 3: Emissions by greenhouse gas

(CO <sub>2</sub> e '000 tonnes)	2009				2008			
	Scope 1	Scope 2	Scope 3	TOTAL	Scope 1	Scope 2	Scope 3	TOTAL
Carbon dioxide	328	1,293	5,799	<b>7,420</b>	372	1,386	5,756	<b>7,514</b>
Methane	45	-	821	<b>866</b>	56	-	924	<b>980</b>
Nitrous Oxide	59	-	625	<b>684</b>	93	-	640	<b>733</b>
<b>Total Emissions</b>	<b>432</b>	<b>1,293</b>	<b>7,245</b>	<b>8,970</b>	<b>521</b>	<b>1,386</b>	<b>7,320</b>	<b>9,227</b>

### 3.4. Note 4: Group segmental reporting

(CO <sub>2</sub> e '000 tonnes)	2009				2008			
	Scope 1	Scope 2	Scope 3	TOTAL	Scope 1	Scope 2	Scope 3	TOTAL
<b>Geographical analysis</b>								
UK	382	896	5,468	<b>6,746</b>	423	957	5,455	<b>6,835</b>
China	22	170	1,106	<b>1,298</b>	60	175	1,022	<b>1,257</b>
US	21	193	543	<b>757</b>	35	198	641	<b>874</b>
Other	7	34	128	<b>169</b>	3	56	202	<b>261</b>
<b>Total Emissions</b>	<b>432</b>	<b>1,293</b>	<b>7,245</b>	<b>8,970</b>	<b>521</b>	<b>1,386</b>	<b>7,320</b>	<b>9,227</b>
<b>Business analysis</b>								
Industrial manufacturing products	284	546	5,422	<b>6,252</b>	301	599	5,445	<b>6,345</b>
Consumer Products	43	543	1,198	<b>1,784</b>	74	601	1,104	<b>1,779</b>
Distribution services								
– Group	61	80	124	<b>265</b>	80	99	111	<b>290</b>
– Franchise	44	124	501	<b>669</b>	66	87	660	<b>813</b>
<b>Total Emissions</b>	<b>432</b>	<b>1,293</b>	<b>7,245</b>	<b>8,970</b>	<b>521</b>	<b>1,386</b>	<b>7,320</b>	<b>9,227</b>

## Notes (continued)

### 3.5. Note 5: Acquisitions and divestments

	Continuing operations			Discontinued	Total
(CO <sub>2</sub> e '000 tonnes)	Existing*	Acquired	Sub total	Divestment	
2009 emissions					
Scope 1	332	50	382	50	432
Scope 2	843	350	1,193	100	1,293
Sub total	1,175	400	1,575	150	1,725
Scope 3	5,845	900	6,745	500	7,245
<b>Total</b>	<b>7,020</b>	<b>1,300</b>	<b>8,320</b>	<b>650</b>	<b>8,970</b>
2006 Baseline emissions					
Scope 1	433	207	640	5	645
Scope 2	1,094	300	1,394	100	1,494
Sub total	1,527	507	2,034	105	2,139
Scope 3	5,701	1,500	7,201	800	8,001
<b>Total</b>	<b>7,228</b>	<b>2,007</b>	<b>9,235</b>	<b>905</b>	<b>10,140</b>
2012 Target emissions					
Scope 1	264	85	349	15	364
Scope 2	738	100	838	200	1,038
Sub total	1,002	185	1,187	215	1,402
Scope 3	4,101	1,500	5,601	500	6,101
<b>Total</b>	<b>5,103</b>	<b>1,685</b>	<b>6,788</b>	<b>715</b>	<b>7,503</b>

\*Existing operations includes a net prior year adjustment on scope 3 emissions of 15,000 tCO<sub>2</sub>e. This is a combination of more accurate conversion factors for our transport fleet (–80,000 tCO<sub>2</sub>e) and revised estimates of transport miles (+95,000 tCO<sub>2</sub>e).

## 4. Independent Assurance Report

**Comment:** A growing number of companies are voluntarily obtaining independent assurance over their emissions reporting. The illustrative assurance report presented below reflects a reasonable assurance conclusion. The International Standard on Assurance Engagements 3000 (Revised) – ‘Assurance Engagements other than Audits and Reviews of Historical Financial Information’ also allows limited assurance conclusions. As its title implies, a limited assurance assignment provides less assurance and the assurance work performed is more limited than for a reasonable assurance assignment. It is expected that many companies will go through an “assurance readiness” process in the first instance to establish whether the appropriate systems and controls are in place within the company to facilitate carbon reporting. The example report below shows what a reasonable assurance statement might look like.

The International Auditing and Assurance Standards Board (IAASB) are currently developing an assurance standard on greenhouse gas emissions information. This illustrative assurance report will be updated following the release of the IAASB standard.

### Independent Assurance Report on the Primary Statement of Greenhouse Gas Emissions to the Directors of Typico plc

We have been engaged by the directors of Typico plc (the “Company”) to perform an independent reasonable assurance engagement in respect of the Primary Statement of Greenhouse Gas Emissions for the Group for the year ended 31 December 2009 and accompanying notes 1 to 5, contained within Typico’s 2009 Greenhouse Gas Emissions Report. Information in respect of the year ended 31 December 2008, 2012 targets, 2006 baseline and percentage change information has not been included within the scope of work.

#### Respective responsibilities of the directors and PricewaterhouseCoopers LLP

The directors’ responsibilities for preparing the Primary Statement of Greenhouse Gas Emissions in accordance with the criteria set out in the Company’s Reporting Policies and for the development of the Reporting Policies are set out in the Statement of Directors’ Responsibilities on page 16.

Our responsibility is to form an independent opinion, based on our assurance procedures, on whether the Primary Statement of Greenhouse Gas Emissions for the Group and accompanying notes are fairly stated, in all material respects, in accordance with the Greenhouse Gas Reporting Policies.

This report, including the opinion, has been prepared for the directors of the Company as a body, to assist the directors in reporting on the Company’s greenhouse gas emissions performance and activities. We permit the disclosure of this report within the Greenhouse Gas Emissions Report for the year ended 31 December 2009, to enable the directors to demonstrate they have discharged their governance responsibilities by commissioning an independent assurance report in connection with the Primary Statement of Greenhouse Gas Emissions. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the directors as a body and the Company for our work or this report save where terms are expressly agreed and with our prior consent in writing.

We read the other information included in the Greenhouse Gas Emissions Report, including the information in the management commentary for the Group, and considered whether it is consistent with the 2009 information in the Primary Statement of Greenhouse Gas Emissions. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the Primary Statement of Greenhouse Gas Emissions. Our responsibilities do not extend to any other information.

## Independent Assurance Report (continued)

### Assurance work performed

We conducted our reasonable assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) – ‘Assurance Engagements other than Audits or Reviews of Historical Financial Information’ issued by the International Auditing and Assurance Standards Board (“ISAE 3000”).

Our work included examination, on a test basis, of evidence relevant to the Primary Statement of Greenhouse Gas Emissions. It also included an assessment of the significant estimates and judgements made by the directors in the preparation of the Primary Statement of Greenhouse Gas Emissions. We planned and performed our work so as to obtain all the information and explanations that we considered necessary in order to provide us with sufficient evidence on which to base our opinion.

Our work included the following procedures:

*[Comment: Given the lack of detailed guidance for carbon assurance it could be useful to users to provide an outline of the reasonable assurance procedures.]*

### Inherent limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable measurement techniques which can result in materially different measurements and can impact comparability. The precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time. It is important to read the Primary Statement of Greenhouse Gas Emissions and the accompanying notes in the context of the Company’s Greenhouse Gas Reporting Policies.

In particular, the conversion of fuel used to carbon emissions is based upon, inter alia, information and factors derived by independent third parties as explained in the Reporting Policies. Our assurance work has not included examination of the derivation of those factors and other third party information.

### Opinion

Based on the results of our procedures, in our opinion, the Primary Statement of Greenhouse Gas Emissions and accompanying notes 1 to 5 for the Group for the year ended 31 December 2009 are fairly stated, in all material respects, in accordance with the Greenhouse Gas Reporting Policies of Typico Plc.

PricewaterhouseCoopers LLP

Chartered Accountants

London

20 April 2010

# Appendix

## Example Summary Report



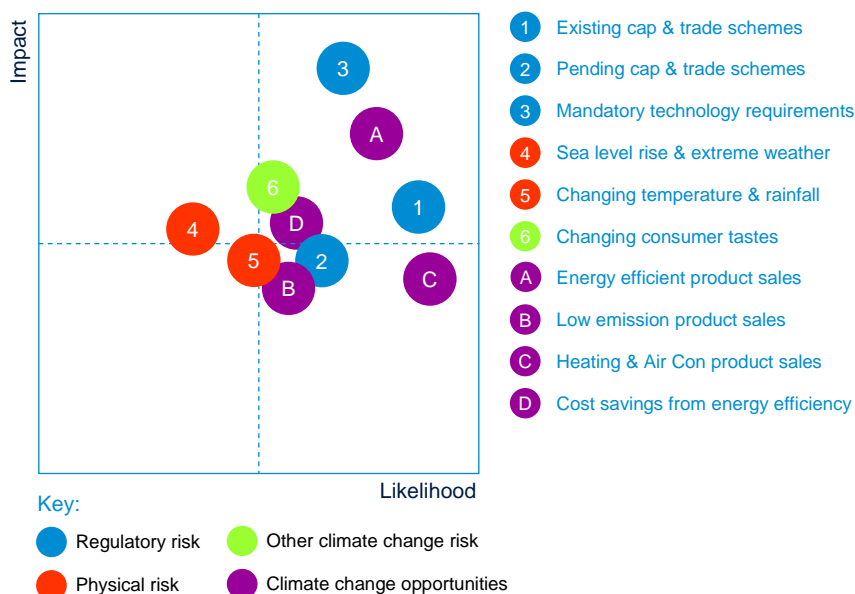
# Greenhouse gas emissions summary report 2009

## Strategy and performance

Our business strategy is shaped to respond to the risks and opportunities we face and climate change related risks and opportunities are built into this overarching strategy.

Our mission is to be the leading provider of products and services which improve the quality of people's lives without harming the environment. To deliver this we believe that we must significantly reduce Typico's own impact on climate change and at the same time adapt our business to the consequences of climate change, including taking full advantage of the opportunities presented.

### Our climate change risks and opportunities



Our review of the key risks and opportunities set out above drive Typico's climate change strategy. The link between the risks and opportunities in the top right segment of our risk map and our four priority climate change strategies is set out in the table opposite.

#### Notes:

- For details of our reporting policies please refer to our Greenhouse Gas Emissions Report.
- These indicators have been developed as a means of benchmarking the group's performance against our strategic objectives. Additional indicators which are also used to measure our performance are discussed in our Greenhouse Gas Emissions Report.

Reduce Typico's own im

#### Strategy

Reduce our absolute GHG emissions by 26% by 2012 from a 2006 baseline year

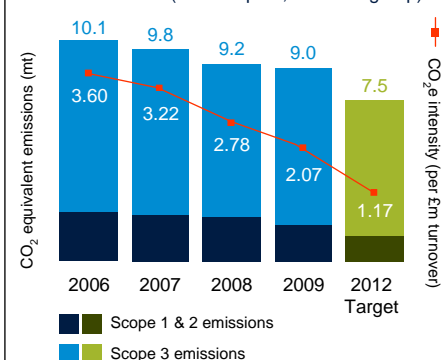
Risks and opportunities 1 2 3 D

#### Performance, KPIs and targets

We continue to reduce our gross emissions despite growth in sales. We have offset scope 1 and 2 emissions again this year at a cost of £9.8m

#### Direct company impacts

Carbon emissions (total scope 1, 2 & 3 for group)



#### Looking ahead

Continue to offset scope 1 and 2 emissions and deliver 0.5mtCO<sub>2</sub>e savings per year over the next 3 years

#### Benchmarking

2009 Scope 1 & 2 CO<sub>2</sub>e emissions:

Contribution to sector total per CDP 8%

Intensity / £m turnover 0.05%

## Impact on climate change

## Adapt our business to the consequences of climate change

Demonstrate a net financial benefit to the business from emissions reductions activities by 2012

Risks and opportunities 6 A D

Increase share of "eco-products" in our portfolio from 17% to 30% and increase the share of eco-product sales from 20% to 40% by 2012

Risks and opportunities 3 6 A B

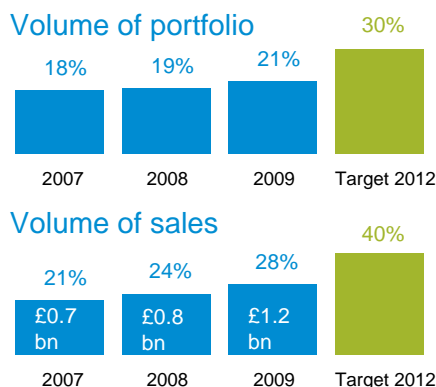
Roll out our current resource optimisation pilot project to the rest of the group by 2012

Risks and opportunities D

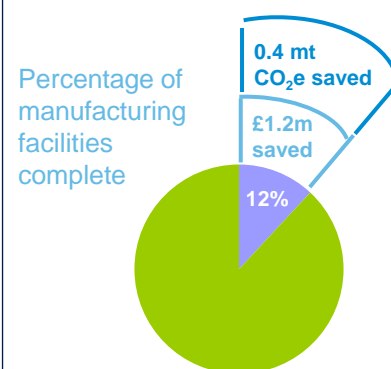
Our emission reduction activities and eco-products both delivered net financial benefit in 2008. Increasing market value of carbon offsets resulted in a net cost of £3.9m in 2009

£ million	2008	2009
Net costs / (savings) from GHG reduction activities	15.1	(3.5)
Net costs / (savings) from 'eco products'	0.7	(2.4)
Offset expenditure	7.8	9.8
<b>Net costs</b>	<b>23.6</b>	<b>3.9</b>

Eco-product volumes continue to show strong growth and are on course to achieve the 2012 target. Eco-products also continue to achieve a premium price in the market



Our first energy efficiency projects at our Toulouse, Reading and Nanjing manufacturing facilities delivered 0.4 mtCO<sub>2</sub>e and £1.2m savings in 2009



Increase net financial benefit from eco-products and GHG reduction activities to deliver a net financial benefit from climate change activities by 2012

Deliver 12% annual growth in eco-products portfolio share over the next 3 years and 15% growth in eco-products sales volumes over the same period

Complete energy efficiency projects at remaining 22 manufacturing facilities by 2012

No benchmark currently available

Total global sales of eco-products £ 1.2bn  
Typico's market share of eco-products 4%

Average Typico manufacturing facility energy intensity 4.5 kWh / product tonne

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