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Warming Up to Climate Change Risk Disclosure

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Abstract

Investors are clamoring for companies to include more climate change risk disclosure in their periodic reports filed with the Securities and Exchange Commission (SEC). Yet public companies in the United States do a poor job of disclosing to investors how climate change affects their businesses. Although there have been several proposals for more voluntary disclosure of these risks and one petition for guidance from the SEC, these proposals are not effecting changes in disclosure practices quickly enough. This Article builds on existing proposals to create guidelines for mandatory climate change risk disclosure in periodic securities filings. The guidelines seek to provide investors with meaningful disclosure, without overburdening the companies making the disclosure. This framework could be used by the SEC in formulating guidance regarding climate change risk disclosure under existing disclosure rules, or in creating new rules mandating the disclosure. Investors are clamoring for companies to include more climate change risk disclosure in their periodic reports filed with the Securities and Exchange Commission (SEC). Yet public companies in the United States do a poor job of disclosing to investors how climate change affects their businesses. Although there have been several proposals for more voluntary disclosure of these risks and one petition for guidance from the SEC, these proposals are not effecting changes in disclosure practices quickly enough. This Article builds on existing proposals to create guidelines for mandatory climate change risk disclosure in periodic securities filings. The guidelines seek to provide investors with meaningful disclosure, without overburdening the companies making the disclosure. This framework could be used by the SEC in formulating guidance regarding climate change risk disclosure under existing disclosure rules, or in creating new rules mandating the disclosure.

KEYWORDS: Climate Change, Environmental Law, SEC, Business, Investing, Investors, Public Companies, Corporate Law

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WARMING UP TO CLIMATE CHANGE RISK DISCLOSURE

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ABSTRACT

Investors are clamoring for companies to include more climate change risk disclosure in their periodic reports filed with the Securities and Exchange Commission (SEC). Yet public companies in the United States do a poor job of disclosing to investors how climate change affects their businesses. Although there have been several proposals for more voluntary disclosure of these risks and one petition for guidance from the SEC, these proposals are not effecting changes in disclosure practices quickly enough. This Article builds on existing proposals to create guidelines for mandatory climate change risk disclosure in periodic securities filings. The guidelines seek to provide investors with meaningful disclosure, without overburdening the companies making the disclosure. This framework could be used by the SEC in formulating guidance regarding climate change risk disclosure under existing disclosure rules, or in creating new rules mandating the disclosure.

INTRODUCTION

Public companies in the United States do a poor job of disclosing to investors how climate change affects their businesses.¹ Despite repeated requests from investor groups for more disclosure, and despite increasing public interest in the effects of global warming, poor disclosure

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1. See AM. LAW INST., CLIMATE RISK DISCLOSURE BY THE S&P 500, 186 (2007) [hereinafter CERES REPORT]. The report was commissioned by CERES, a national coalition of investors, environmental groups and other organizations, and Calvert, an institutional investor. See also PETITION FOR INTERPRETIVE GUIDANCE ON CLIMATE RISK DISCLOSURE 2 (2007), available at <http://www.sec.gov/rules/petitions/2007/petn4-547.pdf> [hereinafter CLIMATE RISK PETITION].

persists.² This Article summarizes some of the efforts to improve disclosure of climate change risks, and recommends elements of a mandatory disclosure system for climate change risk disclosure under the securities laws.

Climate change issues are regularly featured in the pages of the *New York Times* and on public radio programs.³ It was a topic of debate among candidates for president in 2008.⁴ Al Gore's film *An Inconvenient Truth*, which sought to raise awareness of global warming worldwide, won an Academy Award in 2007 for best documentary feature.⁵ Gore also won a share of the Nobel Peace Prize in 2007, along with the Intergovernmental Panel on Climate Change (IPCC), for their "efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change."⁶

The IPCC describes climate system warming as "unequivocal" and very likely the result of greenhouse gas concentrations ("GHGs").⁷ In

2. See *infra* notes 3-6, 13-20 and accompanying text.

3. See, e.g., Long Hwa-Shu, *Bank Takes Environmental Step Into Rural Town*, N.Y. TIMES, July 2, 2008, at C7; Felicity Barringer & Andrew Ross Sorkin, *Prominent Green Group to Help Buyout Firm*, N.Y. TIMES, May 1, 2008, at C1; Megan Williams, *Carriers Afraid They'll Cough Up for CO₂*, MARKETPLACE, Dec. 21, 2007, available at http://marketplace.publicradio.org/display/web/2007/12/21/eu_new_co2_airplane_law/; Richard Harris, *Businesses See Green in Iceland's Volcano Power*, NATIONAL PUBLIC RADIO WEEKEND EDITION SATURDAY, Dec. 3, 2007, available at <http://www.npr.org/templates/story/story.php?storyId=17548004>; Elisabeth Rosenthal, *U.N. Report on Climate Details Risks of Inaction*, N.Y. TIMES, Nov. 17, 2007, at A1.

4. See Edmund L. Andrews, *When Fuel and Politics Mix*, N.Y. TIMES, Nov. 28, 2007, at C1; see also BarackObama.com, *New Energy for America*, <http://www.barackobama.com/issues/energy/> (last visited July 2, 2008); JohnMcCain.com, *John McCain's Principles for Climate Policy*, <http://www.johnmccain.com/Informing/Issues/da151a1c-733a-4dc1-9cd3-f9ca5caba1de.htm> (last visited July 2, 2008).

5. See Norman Mayersohn, *Two Steps Greener, One Back*, N.Y. TIMES, Dec. 30, 2007, § 10, at 12.

6. See Nobelprize.org, *The Nobel Peace Prize 2007*, http://nobelprize.org/nobel_prizes/peace/laureates/2007/ (last visited Jan. 10, 2009).

7. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *CLIMATE CHANGE 2007: SYNTHESIS REPORT, SUMMARY FOR POLICYMAKERS 1, 2* (Nov. 17, 2007), available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [hereinafter IPCC FOURTH ASSESSMENT]. The IPCC is a group of hundreds of scientists from countries that are members of the World Meteorological Organization or the United Nations Environment Programme. It was created as a source of objective information about global warming, and is made available to policymakers for purposes of evaluating the social and economic impacts of global warming. See About IPCC, <http://www.ipcc.ch/>

its Climate Change 2007 report, the IPCC states “[t]here is *high agreement* and *much evidence* that with current climate change mitigation policies and related sustainable development practices, global GHG emissions will continue to grow over the next few decades.”⁸ Moreover, climate change is likely to “lead to some impacts that are abrupt or irreversible, depending upon the rate and magnitude of climate change.”⁹

Global warming is also gaining traction among governmental bodies. The United States Supreme Court recently stated:

The harms associated with climate change are serious and well recognized. The Government’s own objective assessment of the relevant science and a strong consensus among qualified experts indicate that global warming threatens, *inter alia*, a precipitate rise in sea levels, severe and irreversible changes to natural ecosystems, a significant reduction in winter snowpack with direct and important economic consequences, and increases in the spread of disease and the ferocity of weather events.¹⁰

In October 2007, Senators Joe Lieberman (D-CT) and John Warner (R-VA) introduced the America’s Climate Security Act of 2007 after approval by a senate subcommittee.¹¹ America’s Climate Security Act is designed to direct the Environmental Protection Agency to adopt programs to address GHG emissions.¹²

In short, climate change is a daily topic of conversation, and is recognized as one of the most significant issues of our time by the media, government, and scientific, international, and business communities.¹³ Although skeptics remain, human contribution to the harmful effects of climate change is gaining increasing acceptance with each passing year.¹⁴

about/index.htm (last visited Jan. 10, 2009).

8. IPCC FOURTH ASSESSMENT, *supra* note 7, at 7.

9. *Id.* at 13.

10. *Massachusetts v. EPA*, 127 S. Ct. 1438, 1442 (2007). Four of the justices dissented with respect to the outcome of the case, but Justice Scalia’s dissenting opinion did not dispute the quoted phrase, despite acknowledging uncertainties associated with determining the specific causes. *Id.* at 1471, 1474-75.

11. S. 2191, 110th Cong. (2007).

12. *Id.* § 3.

13. *See, e.g.*, CERES REPORT, *supra* note 1, at i; DANIEL C. ESTY & ANDREW S. WINSTON, GREEN TO GOLD: HOW SMART COMPANIES USE ENVIRONMENTAL STRATEGY TO INNOVATE, CREATE VALUE, AND BUILD COMPETITIVE ADVANTAGE (2006); GOV’T INSTS., INC., THE GREENING OF AMERICAN BUSINESS: MAKING BOTTOM-LINE SENSE OF

Investor groups wonder how climate change affects the businesses in which they have invested. Investors have been calling for voluntary disclosure about environmental policies for nearly two decades.¹⁵ Yet in 2000, Kimberly O'Neill Packard and Forest L. Reinhardt wrote in the *Harvard Business Review*: "Surprisingly few companies make public statements – or even have pages on their Web sites – about how they are dealing with climate change."¹⁶ In 2007, a study by a group of institutional investors found that "disclosure practices among the nation's 500 largest companies are severely lacking."¹⁷ The group urged public companies to voluntarily disclose climate change risk in a more meaningful way.¹⁸ In September 2007, a separate group of institutional investors, environmental organizations and governmental officers petitioned the United States Securities and Exchange Commission (SEC) to release guidance for reporting climate change issues under existing mandatory disclosure rules and regulations.¹⁹ And, at the company level, shareholders frequently submit proposals relating to climate change disclosure for inclusion in annual proxy statements.²⁰

ENVIRONMENTAL RESPONSIBILITY (Thomas F. P. Sullivan ed., 1992) [hereinafter THE GREENING OF AMERICAN BUSINESS].

14. A law journal article is not the proper forum for discussing the underlying science of climate change. Despite pockets of skepticism, the author assumes the overwhelming trend is accurate, and that climate change is a serious risk to the planet. Not everyone agrees of course. For two examples: The founder of The Weather Channel, John Coleman, currently a meteorologist at a San Diego television affiliate, has examined the science and believes global warming "is the greatest scam in history." John Coleman, *Global Warming Is a Scam*, available at <http://www.kusi.com/weather/colemancorner/11621966.html>. Christopher C. Horner, a Senior Fellow at the Competitive Enterprise Institute, believes the attention given to global warming is indicative of alarmist behavior. CHRISTOPHER C. HORNER, THE POLITICALLY INCORRECT GUIDE TO GLOBAL WARMING AND ENVIRONMENTALISM (2007). Then there are groups like the Free Enterprise Action Fund, which, regardless of the science, believes corporate social responsibility to be "anti-business." Free Enterprise Action Fund, <http://www.freeenterpriseactionfund.com/advocacy.html> (last visited Jan. 10, 2009).

15. Mark A. White, *Effect of the Green Movement on Investors*, in THE GREENING OF AMERICAN BUSINESS, *supra* note 13, at 47-50.

16. Kimberly O'Neill Packard & Forest L. Reinhardt, *What Every Executive Needs to Know About Global Warming*, HARV. BUS. R. (July-Aug. 2000), 129, 134, reprinted in HARVARD BUS. SCH. PRESS, HARVARD BUSINESS REVIEW ON GREEN BUSINESS STRATEGY (2007).

17. See CERES REPORT, *supra* note 1, at ii.

18. *Id.*

19. CLIMATE RISK PETITION, *supra* note 1, at 2-3.

20. See, e.g., OGE Energy, SEC No-Action Letter, 2008 WL 541778 (Feb. 27,

This Article argues for mandatory disclosure of climate change risks in periodic reports filed under the securities laws, which are available to the investing public through the SEC's website.²¹ Part I of this Article will briefly review the current framework of periodic mandatory disclosure under the Securities Exchange Act of 1934 (the "Exchange Act"), and the associated rules as they may relate to climate change risk disclosure.²² Part II discusses the current state of climate change risk disclosure, and some of the reasons underlying the reluctance to increase climate change disclosure. Part III describes current attempts to improve disclosure of climate risks, through both voluntary and mandatory disclosure proposals. This Part also includes a critique of the proposed systems, as well as a discussion about whether climate change risk ought to be the subject of SEC guidance or rulemaking. Finally, Part IV builds on the existing proposals to suggest a framework for periodic mandatory disclosure that the SEC should use in publishing guidance under existing securities laws, or as the basis for adopting additional rules governing a company's periodic reporting.

PART I. SECURITIES DISCLOSURE FRAMEWORK

A. Disclosure Required in Public Company Reports

Section 13(a) of the Exchange Act requires all issuers of registered securities to file periodic reports with the SEC, and grants the SEC rule-making authority to prescribe the form and content of those reports.²³ The periodic reports required to be filed by issuers under Section 13(a)

2008); Pulte Homes, SEC No-Action Letter, 2008 WL 384377 (Feb. 11, 2008). Their efforts have met with varying degrees of success. *Compare* OGE Energy, SEC No-Action Letter, 2008 WL 541778 (Feb. 27, 2008) (allowing OGE Energy to exclude a proposal asking for a board of directors report about how the company is assessing the impact of climate change on the business) *with* Pulte Homes, SEC No-Action Letter, 2008 WL 384377 (Feb. 11, 2008) (rejecting Pulte Homes' request to exclude a proposal asking for a board of directors report about the feasibility of the company developing policies that will minimize the company's impact on climate change).

21. The SEC maintains a database of periodic filings submitted to the SEC known as "EDGAR." SEC, Researching Public Companies Through EDGAR: A Guide For Investors, <http://www.sec.gov/invstor/pubs/edgarguide.htm> (last visited Jan. 10, 2009). The EDGAR database can be searched at <http://www.sec.gov/edgar/searchedgar/webusers.htm>.

22. Securities Exchange Act of 1934, 15 U.S.C. §§ 78a-78nn (2007).

23. 15 U.S.C. § 78m (2007).

and the associated rules include the annual report on Form 10-K,²⁴ and quarterly reports on Form 10-Q, among others.²⁵

Forms 10-Q and 10-K are scarcely forms at all, at least not as the term is commonly understood. While they provide a framework for the required disclosure, they explicitly state in their instructions that they are not blank forms, but rather “guide cop[ies]” to be used in preparing the periodic reports.²⁶ Instead, Forms 10-Q and 10-K refer to Regulation S-K, adopted by the SEC in connection with the filing of forms under the Exchange Act and the Securities Act of 1933 (the “Securities Act”).²⁷ Regulation S-K provides a more detailed set of guidelines for disclosure in the quarterly and annual reports, but is broad enough to maintain flexibility across a wide range of business activities.

Both the quarterly and annual reports require the issuer to disclose information about the company’s financial condition, results of operations and legal proceedings, and risks to which the company is subject.²⁸ The annual report further requires a discussion of the business developments at the company.²⁹ Those matters implicate Items 101, 103, 303 and 503(c) of Regulation S-K, and the company’s audited financial statements.³⁰ A brief description of each of those items follows.

24. Requirements of Annual Reports, 17 C.F.R. § 240.13a-1 (2007).

25. Quarterly Reports on Form 10-Q and Form 10-QSB, 17 C.F.R. § 240.13a-13 (2007). Issuers also must file current reports on Form 8-K, but those reports are not relevant to this Article. Current Reports on Form 8-K, 17 C.F.R. § 240.13a-11 (2007). “Current reports” refers to several events specified by the SEC as being significant enough to require the company to make public disclosure of the event prior to the time the next 10-Q quarterly report or 10-K annual report is due. Events include the entry into or termination of a definitive material agreement, changes in control, business acquisitions, dispositions and combinations and failure to pay a required dividend, among many other events. Form 8-K, 17 C.F.R. § 249.308 (2007). While it is conceivable that a climate change event would be significant enough to trigger a Form 8-K filing, the system in place appears to be adequate for the task.

26. General Instruction C in Form 10-Q. Form 10-Q, 17 C.F.R. § 249.308a (2007) [hereinafter, Form 10-Q]; *see also* General Instruction C in Form 10-K. Form 10-K, 17 C.F.R. § 249.310 (2007) [hereinafter Form 10-K].

27. *See* Regulation S-K, 17 C.F.R. §§ 229.10-.915 (2007); Securities Act of 1933, 15 U.S.C. §§ 77a-77z-3 (2007).

28. Form 10-Q, *supra* note 26; Form 10-K, *supra* note 26.

29. Form 10-K, *supra* note 26, Item 1.

30. Form 10-Q, *supra* note 26; Form 10-K, *supra* note 26.

1. Description of Business (Item 101)

Item 101 requires the company to report information about the general development of the business during the past five years (or shorter period if the company does not have a five year history).³¹ It requires a narrative description of the business, including a description of products and services, business practices, competitive conditions and more.³² Companies affected by climate change risk might use Item 101 to disclose the risk to their business operations. However, because the Item 101 description of business tends to be a broad-based discussion of operations – such as the products and services offered by the company – disclosure of climate change risk is more likely to appear in other sections of the periodic reports. The business description might, nonetheless, include a description of new products and technologies being developed in association with climate change risk if management believes it is material to the description of the company’s business. A description of the business is not required in the quarterly reports.³³

2. Legal Proceedings (Item 103)

Item 103 of Regulation S-K is designed for the company to disclose “any material pending legal proceedings, other than ordinary routine litigation incidental to the business.”³⁴ However, the instructions to Item 103 state that an issuer need not provide information with respect to a litigation proceeding seeking damages if the damages would not exceed 10% of the consolidated assets of the company and its

31. Regulation S-K, 17 C.F.R. § 229.101 (2008). Smaller reporting companies need only describe the development of the business during the past three years. *Id.* § 229.101(h). “Smaller reporting companies” are companies with public float of less than \$75 million, or if they have no float at all, revenues less than \$50 million. *Id.* § 229.10(f)(1) (2008). Investment companies, asset-backed issuers and majority-owned subsidiaries of a non-small reporting company parent do not qualify as smaller reporting companies. *Id.* The “smaller reporting company” concept replaced the “small business issuer” concept, expanded the size of companies who fit the definition, and transferred the rules for these types of entities from Regulation S-B to the appropriate places in Regulation S-K. Smaller Reporting Company Regulatory Relief and Simplification, Securities Act Release No. 33-8876, 92 SEC Docket 436 (Dec. 19, 2007).

32. Regulation S-K § 229.101(c).

33. Form 10-Q, *supra* note 26.

34. Regulation S-K § 229.103.

subsidiaries.³⁵ Companies involved in climate change-related litigation must therefore disclose that litigation under Item 103 only if the 10% threshold is reached. Thus, at present, climate change disclosure is likely to appear under Item 103 only if the company has run afoul of an environmental regulation that carries significant monetary penalties or civil liability. Liability of this magnitude is relatively scarce and would likely grab headlines irrespective of the disclosure required by Item 103.

3. MD&A: Management's Discussion and Analysis (Item 303)

Item 303 of Regulation S-K is designed to allow management to disclose its own explanation for the financial condition and results of operations for the time period covered by the form.³⁶ Although Item 303 contains significant detail about what the issuer must disclose, such as trends and commitments related to the company's liquidity and capital resources, the issuer also must provide all information it believes is "necessary to an understanding of its financial condition, changes in financial condition and results of operations," even if the information is not specifically itemized in Item 303 of the regulation.³⁷ Thus, management might describe climate change risks under Item 303, particularly if they have a significant financial impact. If, however, management has not yet evaluated the financial impact of climate change, there would be nothing to disclose in the MD&A regarding climate change risk.

4. Risk Factors (Item 503(c))

Item 503(c) of Regulation S-K requires the company to disclose the most significant factors that make ownership of the company's securities risky.³⁸ The risk factors are included in the company's prospectus, which is delivered at the time the securities are first issued, and also appear in the annual reports on Form 10-K.³⁹ In addition, Form 10-Q

35. *Id.*

36. Regulation S-K § 229.303(a). For example, the time period covered by the first Form 10-Q a company files during a fiscal year is the most recently completed fiscal quarter. The "MD&A" would analyze that quarter, and the comparative quarter from the previous fiscal year. Regulation S-K § 229.303(b). Smaller reporting companies have reduced requirements for the MD&A. Regulation S-K § 229.303(d).

37. *Id.*

38. Regulation S-K § 229.503(c).

39. *Id.*; Form 10-K, *supra* note 26, at Item 1A. Smaller reporting companies are not required to furnish risk factors in the annual report. *Id.* at Item 1A.

requires quarterly reports to include any material changes in the risk factors that were reported in the last annual report.⁴⁰

Risk factors are taken seriously enough by the SEC that Item 503(c) explicitly requires a concise and logically organized presentation.⁴¹ The risk factors may not be hidden amongst the rest of the often lengthy and technical reports.⁴² Item 503(c) does not attempt to itemize the entire range of risks that may require disclosure, instead providing only a generic list of risks, including lack of operating history, lack of recent profitable operations, and lack of a market for the common stock of the company.⁴³ Actual risk factor disclosure normally goes far beyond these generic categories. Thus, details about climate change risks are a natural fit in the risk factors section of the periodic reports – assuming management is aware of and knowledgeable about climate change risks. At present, companies are not, in any widespread sense, using the 503(c) risk factors section to disclose climate change risks.⁴⁴

5. Financial Statements

Each annual report on Form 10-K must include audited financial statements of the company for the most recently completed fiscal year, with comparative information for prior years.⁴⁵ Audited financial statements include in the footnotes a section on contingent liabilities.⁴⁶ The contingent liability rules apply when there is “an existing condition, situation, or set of circumstances involving uncertainty as to possible . . .

40. Form 10-Q, *supra* note 26, at Item 1A. Because smaller reporting companies are not required to furnish risk factors in the annual report, there is no requirement that their risk factors be updated on a quarterly basis. *Id.*

41. Regulation S-K § 229.503(c).

42. *Id.* This is part of the SEC’s “Plain English” rule, which currently only applies to prospectuses, risk factor disclosures and some of the executive compensation disclosure in periodic reports. *See infra* notes 192-201 and accompanying text.

43. Regulation S-K § 229.503(c).

44. *See infra* notes 78-84 and accompanying text.

45. Form 10-K, *supra* note 26, at Item 8. The method of preparation, content and form of the audited financial statements are governed by Regulation S-X under the Exchange Act. Regulation S-X, 17 C.F.R. § 210.1-01 (2007). Form 10-Q also requires financial statements for the shorter period covered by the quarterly report, but they may be unaudited. Form 10-Q, *supra* note 26, Item 1; Regulation S-X, 17 C.F.R. §210.10-01(a) (2007).

46. Financial Accounting Standards Board, STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 5: ACCOUNTING FOR CONTINGENCIES (Mar. 1975) [hereinafter FASB No. 5], available at http://www.fasb.org/pdf/aop_FAS5.pdf.

loss . . . to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur.”⁴⁷ Examples include “[p]ending or threatened litigation . . . [a]ctual or possible claims and assessments . . . [and] [r]isk of loss from catastrophes assumed by property and casualty insurance companies including reinsurance companies.”⁴⁸

Disclosure of asserted claims is required if the loss is probable and can be reasonably estimated, or if there is at least a reasonable possibility that a loss may have occurred (regardless of whether it can be reasonably estimated).⁴⁹ Under the FASB rules, a loss is “probable” if it is “likely to occur.”⁵⁰ A “reasonable possibility” of loss means the chance of the loss occurring is more than slight, but less than likely.⁵¹ If a claim is unasserted, disclosure is required only if the loss is probable and there is a reasonable possibility that the outcome will be negative.⁵²

It is possible for plaintiffs to assert claims associated with climate change risk and other environmental matters now, particularly if they relate to a violation of governmental laws or regulations. In that event, such contingent liabilities must be disclosed if the potential negative financial consequences meet the FASB standards. These requirements for the audited financial statements, however, cover much the same ground as the Item 103 disclosures relating to litigation, although the triggers for disclosure are stated differently.⁵³ Still, this captures only a small piece of the climate change risk puzzle: the portion that results in litigation with potential financial consequences exceeding the FASB thresholds. Many contingent liabilities associated with climate change may be in the unasserted category at this stage of climate change science, meaning disclosure will only be triggered in the financial state-

47. *Id.* at FAS5-2.

48. *Id.* at FAS5-3.

49. *Id.* at FAS5-4. New rules in the mergers and acquisitions context require the participants to assign a market value to contingent liabilities, regardless of their likelihood or estimability. FIN. ACCOUNTING STANDARDS BD., STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 141 (REVISED 2007): BUSINESS COMBINATIONS, 8 (Dec. 2007), available at <http://www.fasb.org/pdf/fas141r.pdf>. There are different rules for contingencies that are non-contractual. *Id.* Those new rules do not apply in the context of periodic reporting in the quarterly and annual reports. *See id.*

50. FASB NO. 5, *supra* note 46, at FAS5-2.

51. *Id.*

52. *Id.* at FAS5-4.

53. *See supra* notes 34-35 and accompanying text.

ments only if the loss is probable and there is a reasonable possibility that the outcome will be negative.⁵⁴

B. Materiality

Even under these SEC rules and regulations, information must be disclosed in quarterly and annual reports only if it is material.⁵⁵ The United States Supreme Court has formulated the materiality standard as information a reasonable investor would consider important in making an investment decision.⁵⁶ With respect to future events, the probability of the event occurring must be evaluated in light of the magnitude of the event.⁵⁷ Public corporations must consider this materiality standard in determining whether to disclose information about how climate change is affecting, or may affect, their businesses. Judging from the issuers' responses, many corporations do not consider climate change risk material to their businesses, contrary to what investors are saying is important to them.⁵⁸

The SEC has at times viewed materiality primarily through an economic lens, leaving so-called "social disclosure" out of the process.⁵⁹ For example, in the early 1970s, the Natural Resources Defense Council proposed mandatory disclosure of environmental and civil rights matters.⁶⁰ The SEC, however, decided that such matters were not material to investors, in part because they were not economically focused.⁶¹ Clearly, the tide has shifted with respect to global warming and other environmental matters, which are no longer considered mere social issues.⁶² At the time of the NRDC petition, only a small segment of the investing public was interested in better environmental disclosure.⁶³

54. FASB No. 5, *supra* note 46, at FAS5-4.

55. See 17 C.F.R. § 240.10b-5 (2007) (describing Employment of Manipulative and Deceptive Devices).

56. *Basic v. Levinson*, 485 U.S. 224, 237-40 (1988).

57. *Id.* at 238.

58. See *infra* notes 68-83 and accompanying text.

59. Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 HARV. L. REV. 1197, 1251 (1999).

60. *Id.* at 1246-73. Professor Williams devotes an entire section of her article to the details of the SEC's proceedings on the NRDC petition.

61. *Id.* at 1252-55.

62. Even in 1999, Professor Williams wrote that the same issues would be considered material today using the SEC's standards two decades ago. *Id.*

63. *Id.* at 1255-56.

Today, the Social Investment Forum suggests that socially responsible investing accounts for approximately 11% of the investment market, compared to a very small fraction cited at the time of the SEC's decisions on the NRDC petition.⁶⁴

Harvard Professor Cynthia Williams disagrees with the premise that materiality is primarily an economic consideration, both from the standpoint of the legislative authority given to the SEC, and the SEC's determinations of materiality on other issues of corporate accountability.⁶⁵ Yet it certainly is arguable that climate change risk disclosure fits the materiality standard if evaluated solely by its economic effects. Even without a direct economic tie-in, climate change risk disclosure also serves the purpose of "providing investors with full and fair information necessary to make informed investment decisions and to cast well-informed votes to continue with the present management of a company, to pressure management to adopt new strategies, or to vote for new management."⁶⁶ Moreover, there is justification for taking into account the underlying moral issue when determining materiality to investors.⁶⁷ Corporations are given the status of legal persons by state law, and should have as much responsibility – arguably more – for the health of the planet and its inhabitants as any natural person.

PART II. CURRENT STATE OF CLIMATE CHANGE RISK DISCLOSURE

A. Company Participation in Existing Disclosure Systems

Researchers have decried the lack of meaningful public reporting on climate change risks.⁶⁸ Several coalitions have engaged in efforts to

64. See Soc. Inv. Forum, Socially Responsible Investing Facts, available at <http://www.socialinvest.org/resources/sriguide/srifacts.cfm> (last visited Jan. 10, 2009); Williams, *supra* note 59, at 1251.

65. Williams, *supra* note 59, at 1263-68.

66. *Id.* at 1272.

67. Felix Frankfurter wrote "[t]he [Securities Act] embodies a wholly different conception of business morals. It aims to make it difficult for corporate managers to evade responsibility." *Id.* at 1222-23 (quoting Felix Frankfurter, *The Federal Securities Act: II*, FORTUNE, Aug. 1933, at 110 (regulating business morals was a "major rationale" for the enactment of the Securities Act)). Although this Article examines periodic reporting under the Exchange Act, disclosure is the hallmark of both the Securities Act and Exchange Act, and the determination of materiality is the same under both acts.

68. See *supra* notes 16-19 and accompanying text. For a discussion of a General

improve climate change risk disclosure. For example, the Global Reporting Initiative (GRI) is an organization that seeks to elevate reporting on economic, environmental and social performance to the same level as financial disclosures.⁶⁹ GRI has developed a set of Sustainability Reporting Guidelines relating to economic, environmental, human rights, labor, product responsibility and societal issues, supplemented by separate “indicator protocols” for each of those subject areas.⁷⁰

The GRI reporting is designed to occur outside of the securities disclosure system. In fact, U.S. companies have objected to the GRI guidelines as a tool for reporting to shareholders when shareholders have requested GRI-based reports through the proxy regulation system.⁷¹ Yet, of those companies filing sustainability reports under the GRI guidelines, most are not reporting on environmental risk. Instead, they focus on the positive opportunities arising from climate change issues.⁷² According to a recent GRI report co-authored with KPMG’s Global Sustainability Services, “[environmental r]isks could be perceived to be beyond current business planning horizons, or companies may not have identified, explored or quantified risks associated with climate change and may therefore not be in a position to report on risks.”⁷³

The aforementioned CERES coalition of investors, environmental groups and other public interest organizations concerns itself directly with securities disclosure on climate change.⁷⁴ It commissions reports on

Accounting Office Report on disclosure of environmental risks under the securities laws, see Perry E. Wallace, *Climate Change, Fiduciary Duty, and Corporate Disclosure: Are Things Heating Up In the Boardroom?*, 26 VA. ENVTL. L.J. 293, 319-21 (2008).

69. Global Reporting Initiative, <http://www.globalreporting.org/AboutGRI/> (last visited Jan. 10, 2009).

70. G3 Guidelines, <http://www.globalreporting.org/ReportingFramework/G3Guidelines/> (last visited Jan. 10, 2009).

71. See, e.g., Texas Indus., SEC No-Action Letter, 2007 WL 2188373 (July 27, 2007); ConAgra Foods, SEC No-Action Letter, 2004 WL 1489570 (July 1, 2004), each arguing that the GRI guidelines are too vague and complex to serve as a basis for disclosure to shareholders.

72. GLOBAL REPORTING INITIATIVE & KPMG’S GLOBAL SUSTAINABILITY SERVICES, REPORTING THE BUSINESS IMPLICATIONS OF CLIMATE CHANGE IN SUSTAINABILITY REPORTS 5 (2007), available at http://www.globalreporting.org/NR/rdonlyres/C451A32E-A046-493B-9C62-7020325F1E54/0/ClimateChange_GRI_KPMG07.pdf. The survey evaluated GRI sustainability reports from 2006. *Id.* at 11.

73. *Id.* at 5.

74. CERES REPORT, *supra* note 1.

the status of climate change disclosure, and also makes recommendations for improved disclosure.⁷⁵ CERES reports that fewer than half of the companies in the S&P 500 responded to a questionnaire about climate change risks, opportunities and strategies, a much lower figure than the FT Global 500, a worldwide analog to the S&P 500.⁷⁶ Among those companies that responded, nearly one-third refused to make their responses public.⁷⁷ Overall, responding companies provided approximately 25% of the information investors are seeking.⁷⁸

The Carbon Disclosure Project (CDP) also maintains a reporting system for climate change data, and its findings are no more encouraging.⁷⁹ The CDP, whose work in 2006 is relied upon in the CERES Report, is a non-profit organization designed to foster the relationship between investors and corporations on issues relating to climate change.⁸⁰ Like GRI, the CDP system is external to the securities regulation system, although presumably a company willing to publicly disclose its questionnaire responses on the CDP website could easily incorporate the same disclosures in its securities filings.

According to the CDP, there are over 1,550 responding companies around the world.⁸¹ The 2007 results of the CDP questionnaire show 64% of the companies in the S&P 500 Index respond to the questionnaire, but only 49% of the S&P 500 companies publish their disclosures on the CDP's website.⁸² The results show an improved trend from the 2006 data contained in the CERES Report with respect to companies' willingness to respond and allow publication of the responses. Nevertheless, the gains are small. Still fewer than half of the companies are publicly disclosing through the CDP.⁸³

75. *Id.*

76. *Id.* at ii.

77. *Id.*

78. *Id.* at 2. Lower emitting companies were less likely to respond than high emitting companies, such as those in the energy and automobile industries. *Id.* This likely reflects the inability of high emitting companies to ignore the materiality of risks associated with climate change.

79. Carbon Disclosure Project, www.cdproject.net (last visited Jan. 10, 2009).

80. *Id.*

81. Carbon Disclosure Project FAQs, <http://www.cdproject.net/FAQs.asp> (last visited Jan. 10, 2009).

82. See CARBON DISCLOSURE PROJECT, CARBON DISCLOSURE PROJECT REPORT 2007, GLOBAL FT500 37, www.cdproject.net/download.asp?file=CDP5_FT500_Report.pdf.

83. The CDP sent out its latest questionnaire in February 2008, with a May 31

The poor state of climate change disclosure was recently echoed more directly by investors. In a 2007 petition to the SEC, a group of investors, environmental organizations and governmental constituencies pointed out variations in the quality of disclosure among SEC filings of members of the auto, insurance, energy, petrochemical and utilities industries from 2001-2006, calling it an “inconsistent patchwork of disclosure.”⁸⁴

B. Why Is Climate Change Disclosure So Scarce?

Perhaps the growing number of reporting systems in the domestic and international communities contributes to the relatively poor participation in voluntary reporting schemes. How should a company choose a system in which to participate? Or, if a company is required to participate in a state or federal reporting system, should it also participate in a broader voluntary system? It may be that companies are willing to disclose, but the mechanics of disclosure are inconvenient.

Yet, there also are intuitive, non-mechanical reasons for reluctance to disclose climate change risks. First, the scope of the evaluation of climate change risk within an organization may be enormous, depending on the nature of the business. Daniel Esty and Andrew Winston postulate that the evaluation of climate change risk involves more than the normal risk analysis, because it involves the upstream and downstream supply chain.⁸⁵

Second, a large investigative scope would normally associate with

response deadline. CARBON DISCLOSURE PROJECT, <http://www.cdproject.net/current-questionnaire.asp> (last visited Jan. 10, 2009). It already published the results in the September 2008 report. CARBON DISCLOSURE PROJECT, CARBON DISCLOSURE PROJECT REPORT 2007, GLOBAL FT500, available at http://www.reeep.org/file_upload/9_tmpphp7Jeutc.pdf (last visited Jan. 10, 2009).

84. CLIMATE RISK PETITION, *supra* note 1, at 45-48.

85. Esty & Winston, *supra* note 13, at 116. Those authors suggest what they call the “AUDIO” approach to evaluating a corporate environmental strategy. AUDIO also is designed to identify issues and opportunities. AUDIO is merely an acronym for the process of identifying the broad aspects of the environment that affect the business (e.g., water, energy), evaluating the value chain both upstream and downstream to identify the broad aspects affecting suppliers and customers, drilling down on what specific issues arise from those aspects and looking for opportunities to profit from them. *Id.* at 60-61. Climate change would be one “aspect” that would need to be evaluated at the subject company, in the company’s supply chain, and at the customer level. *See id.* at 264.

significant cost factors. Research and development costs may be large at the outset, and may continue into the foreseeable future, particularly because the exact effects of climate change are still being studied – and will be for some time.⁸⁶ While there are profit opportunities in the environmental arena, they tend to have a long horizon, given the initial cost outlay.⁸⁷ A long horizon of profitability does not fit well with the current Wall Street culture that judges companies on a quarterly earnings basis.⁸⁸

Third, even those companies that have evaluated the risk may not fully appreciate its significance, or may have a distorted view of the risk. If the current corporate norm is averse to disclosing climate change risk, it may obscure the true nature of that risk. Some managers may even believe the SEC's relative silence on climate change disclosure is indicative that disclosure is not yet ripe.⁸⁹

86. If the company puts in place systems to track environmental issues going forward – systems most companies do not currently have in place – the challenges may be less daunting as time moves on. *Id.* at 173-80.

87. Focusing on business opportunities is a traditional way to provide incentives for businesses to police themselves. *See, e.g.*, THE GREENING OF AMERICAN BUSINESS *supra* note 13. Not every profitable exercise will be undertaken, however. Businesses have finite resources, and if a climate change opportunity offers a smaller return than other, perhaps less environmentally-friendly alternatives, the climate change opportunity may not be pursued, despite its profitability. In addition, companies seem to have less trouble identifying the opportunities than the risks, and that does not provide the information investors seek. *See supra* note 72 and accompanying text.

88. *See* Arthur Levitt, The Numbers Game, Remarks at NYU Center for Law and Business (Sept. 28, 1998), *available at* <http://www.sec.gov/news/speech/speecharchive/1998/spch220.txt>.

89. A U.S. General Accounting Office Report in 2004 reported that the SEC's Division of Corporation Finance took the position that GHG disclosures were not yet ripe because controls were not being adopted at the federal level, though the SEC acknowledged that there were circumstances in which they were required to be disclosed under materiality standards. U.S. GOV'T ACCOUNTABILITY OFFICE, REPORT TO CONGRESSIONAL REQUESTERS, ENVIRONMENTAL DISCLOSURE: SEC SHOULD EXPLORE WAYS TO IMPROVE TRACKING AND TRANSPARENCY OF INFORMATION 20-21 (2004), *available at* <http://www.gao.gov/new.items/d04808.pdf>. The SEC has also been relatively stingy with respect to shareholder proposals requesting companies to issue reports relating to climate change risks. *See, e.g.*, ACE Ltd., SEC No-Action Letter, 2007 WL 846610 (Mar. 19, 2007) (permitting the company to exclude a shareholder proposal requesting a "report describing our company's strategy and actions relative to climate change," including public policy and legislation, the effect on the company and steps taken in response); Arch Coal, SEC No-Action Letter, 2008 WL 192477 (Jan. 17, 2008) (permitting the company to exclude a shareholder proposal requesting a "report . . . on

There is also evidence that managers do not make decisions that are ultimately rational. The field of behavioralism seeks to explain the psychology of decision making, including decisions made within an organizational structure.⁹⁰ To the extent a corporation is a reflection of its upper management, these behavioral factors may significantly influence a company's decision about whether a particular issue is material and thus ripe for disclosure, or immaterial and exempt from disclosure requirements.⁹¹

As Professor Susanna Kim Ripken writes:

how the company is responding to rising regulatory, competitive, and public pressure to significantly reduce carbon dioxide emissions . . ."). Under current shareholder proposal rules, the SEC walks a fine line in determining whether proposals relating to climate change reports intrude upon management's province of "ordinary business matters" and require the company to "undertake an evaluation of risk." Shareholder Proposals, 17 C.F.R. § 240.14a-8(i)(7) (2007). The SEC's approach to these issues has been deemed arbitrary and capricious, as they provide little information as the basis for their decisions. A typical response in a SEC no-action letter reads like this: "There appears to be some basis for your view that [Company Name] may exclude the proposal under rule 14a-8(i)(7), as relating to [Company Name's] ordinary business operations (i.e., evaluation of risk)." See, e.g., Sunoco, SEC No-Action Letter, 2008 WL 384378 (Feb. 8, 2008). Professor Robert B. Ahdieh describes it like this: "[T]he [SEC] Division [of Corporate Finance] seems to respond to no-action requests based on its gut assessment of the proposal under review and a pair of self-constructed heuristic devices, designed to offer at least the appearance of coherent analysis." Robert B. Ahdieh, *The Dialectical Regulation of Rule 14a-8*, 2 J. BUS. & TECH. L. 165, 173 (2007) (citing Transcript of Roundtable Discussion Regarding Federal Proxy Rules & State Corporation Law (May 7, 2007), available at <http://www.sec.gov/spotlight/proxyprocess/proxy-transcript050707.pdf>).

90. See Stephen J. Choi & A.C. Pritchard, *Behavioral Economics and the SEC*, 56 STAN. L. REV. 1 (2003) (addressing shareholder irrationality); Troy A. Paredes, *Too Much Pay, Too Much Deference: Behavioral Corporate Finance, CEOs, and Corporate Governance*, 32 FLA. ST. U. L. REV. 673 (2005) (addressing overconfidence of CEOs and generally cataloguing the most prominent behavioral economics scholarship). See generally Melvin A. Eisenberg, Symposium, *Corporate Law and Social Norms*, 99 COLUM. L. REV. 1253 (1999); Russell Korobkin, *A Multi-Disciplinary Approach to Legal Scholarship: Economics, Behavioral Economics, and Evolutionary Psychology*, 41 JURIMETRICS J. 319 (2001); Kent Greenfield, Symposium, *Corporations Theory and Corporate Governance Law: Using Behavior Economics to Show the Power and Efficiency of Corporate Law as a Regulatory Tool*, 35 U.C. DAVIS L. REV. 581 (2002).

91. See Donald C. Hambrick & Phyllis A. Mason, *Upper Echelons: The Organization as a Reflection of Its Top Managers*, 9 ACAD. OF MGMT. REV. 193 (1984).

[T]he rationality of individuals' decisions and actions is bounded because of inevitable limits on time, attention, skill and information. . . . People have a tendency to use heuristics, i.e., mental shortcuts or rules of thumb, when making decisions about risks. . . . These cognitive limitations come into play whenever a person must assess the *probability of an uncertain event*⁹²

It is this very “probability of an uncertain event” that managers must take into account when determining whether the risk is material for purposes of securities law disclosure.⁹³

Among these heuristics is “overconfidence bias” in which a manager may place too much confidence in his or her judgment about what the future holds.⁹⁴ According to Professor Ripken, “[c]orporate executives may take on too many risks with the belief that adverse outcomes are unlikely to occur, or that they can be prevented from occurring by executives' own skill and expertise.”⁹⁵ Management's miscalculation of the probability of a risk may result in no disclosure under the materiality standard. Alternatively, it may cause managers to distort the information disclosed, by focusing more on opportunities associated with climate change, and less on the real risks.⁹⁶

Of course, some members of upper management may not personally agree with the scientific trend supporting human contributions to climate change. The “anchoring” heuristic recognizes that managers may seek out information that only confirms their existing views. They may not give enough credit to information that contradicts their existing views.⁹⁷ Again, this could cause managers to place more emphasis on disclosing the opportunities associated with climate change, and less on the true risks.⁹⁸ This greater focus on opportunities is borne out by the GRI findings.⁹⁹

92. Susanna Kim Ripken, *The Dangers and Drawbacks of the Disclosure Antidote: Toward A More Substantive Approach to Securities Regulation*, 58 BAYLOR L. REV. 139, 157-59 (2006) (emphasis added).

93. *Basic v. Levinson*, 485 U.S. 224, 238-40 (1988); see *supra* notes 55-58 and accompanying text.

94. Ripken, *supra* note 92, at 163-66; Paredes, *supra* note 90, at 688-89.

95. Paredes, *supra* note 90, at 165.

96. *Id.* at 165-66.

97. *Id.* at 172-73.

98. See *id.* at 174-75.

99. See *supra* notes 72-73 and accompanying text.

It is easy to see that these biases could become more pronounced where the managers are incentivized to maximize short-term profits, because climate change risk evaluation and disclosure may threaten those incentives.¹⁰⁰ Management may be reluctant to discover new problems, particularly those with a long horizon, costly resolution and, in some cases, the shame of public attention those problems might receive. While this fear might seem antithetical to good business – after all, theoretically the best companies survive by discovering risks in advance and addressing them efficiently – the horizon for climate change risks may be generations long, and management will likely have little experience with such long time frames. If the company discovers a host of problems with only costly long-term solutions, short-term investor reaction may be more harsh than if the company ignored the risks altogether. In addition, the fact that some companies are willing to file sustainability reports with the Carbon Disclosure Project, but not make them publicly available or include them in securities filings, indicates that management fears the potential liability associated with securities law disclosure.

PART III. EVALUATING CURRENT CLIMATE CHANGE DISCLOSURE SYSTEMS AND PROPOSALS

A. Disclosure Systems Outside the Securities Law Framework

The GRI is self-described as a “large multi-stakeholder network of thousands of experts” that “has pioneered the development of the world’s most widely used sustainability reporting framework.”¹⁰¹ As previously described, the GRI Sustainability Reporting Guidelines have an environmental component.¹⁰² The Sustainability Reporting Guidelines are 40 pages of general guidelines, followed by “indicator protocols” for each of the subject areas (e.g., environmental, human rights, etc.).¹⁰³ The environmental indicator protocols are further broken down into categories such as biodiversity, energy and emissions, and others. These comprise an additional 38 pages.¹⁰⁴ GRI has disclosed that

100. See *supra* note 88 and accompanying text.

101. Global Reporting Initiative, What We Do, <http://www.globalreporting.org/AboutGRI/WhatWeDo/> (last visited Jan. 10, 2009).

102. See *supra* note 70 and accompanying text.

103. *Id.*

104. Global Reporting Initiative, Indicator Protocols Set: EN, Version 3.0, *available*

thousands of companies are issuing sustainability reports under the GRI Guidelines.¹⁰⁵

Although a significant number of public companies are using the Sustainability Reporting Guidelines, they seem to focus more on environmental opportunities, and less on the risks associated with climate change.¹⁰⁶ In addition, many companies have claimed the Sustainability Reporting Guidelines are too vague and complex to be workable.¹⁰⁷ The Sustainability Reporting Guidelines have not found their way into periodic filings under the securities disclosure system with anything approaching regularity. At this point in time, they are not a significant or convenient source of investor information about climate change risk.

Similarly, the Carbon Disclosure Project operates externally to the securities regulation framework. As of July 2008, CDP reported that 385 “signatory investors” are part of the CDP effort to get public companies to respond to the CDP questionnaire.¹⁰⁸ The questionnaire asks for responses on risks and opportunities associated with climate change, corporate strategies, corporate governance and accounting matters, among other things.¹⁰⁹ While responses have been on the rise, still fewer than one-half of the companies in the S&P 500 agreed to have their responses publicly disclosed on the CDP’s Internet site, much less in securities filings.¹¹⁰ Moreover, like the other existing reporting systems, the disclosures on the Carbon Disclosure Project website are largely hidden from a general investing public that is unaware the Carbon Disclosure Project exists.

at http://www.globalreporting.org/NR/rdonlyres/F9BECDB8-95BE-4636-9F63-F8D9121900D4/0/G3_IP_Environment.pdf.

105. See Global Reporting Initiative, *What We Do*, *supra* note 101. Not all of those companies are domestic. *Id.*

106. See *supra* notes 69-73 and accompanying text.

107. See *supra* note 71 and accompanying text. One can debate whether the GRI Sustainability Reporting Guidelines are actually too vague and complex, or whether those are convenient arguments made by lawyers in the context of excluding shareholder proposals from annual proxy statements. If they are too vague or complex, the disclosure system is not going to be effective in informing consumers or investors. See Ripken, *supra* note 92, at 157-59.

108. Carbon Disclosure Project, *Signatory Investors*, <http://www.cdproject.net/signatory-investors.asp> (last visited Jan. 10, 2009).

109. Carbon Disclosure Project, *Letter and Questionnaire: Greenhouse Gas (GHG) Emissions and Climate Change, Questionnaire 2-6* (Feb. 1, 2008), *available at* http://www.cdproject.net/download.asp?file=CDP6_Letter_and_Questionnaire.pdf.

110. See *supra* notes 81-83 and accompanying text.

GRI and the Carbon Disclosure Project have made significant inroads to obtaining greater corporate disclosure of risks relating to climate change by pressuring corporations to voluntarily report these risks through proprietary systems created by those entities. Yet the level of participation remains unsatisfying, both quantitatively and qualitatively. In addition, their existence outside of traditional securities disclosure channels makes them of dubious value to most investors.

GRI and the Carbon Disclosure Project are by no means the only existing avenues for voluntary disclosure of climate change data. For example, the Department of Energy and the Environmental Protection Agency each have a voluntary system for reporting GHG emissions.¹¹¹ Several states have implemented (or plan to implement) GHG registries, and in some cases the registries require mandatory disclosure of GHG emissions.¹¹² Various international bodies have a mandatory registry as well, though their goals are not exclusively to promote disclosure.¹¹³

In a recent symposium at the University of Virginia School of Law, Cornell law student Andrew Schatz argued for a scheme of mandatory disclosure of GHG emissions through the creation of a Greenhouse Gas Release Inventory (GGRI).¹¹⁴ This proposed GGRI would exist outside the securities regulation framework.¹¹⁵ Schatz identified five underlying principles of the GGRI proposal: “1) mandatory disclosure, 2) standardized information, 3) identification of companies, 4) reporting at regular intervals and 5) a primary purpose of reducing risks.”¹¹⁶

111. See generally U.S. DEP'T OF ENERGY, ENHANCING DOE'S VOLUNTARY REPORTING OF GREENHOUSE GASES (1605(b)) PROGRAM, <http://www.pi.energy.gov/enhancingGHGregistry/> (last visited Jan. 10, 2009); U.S. EPA, CLIMATE LEADERS, <http://www.epa.gov/stateply/> (last visited Jan. 10, 2009).

112. CONG. RESEARCH SERV., REPORT FOR CONGRESS: CLIMATE CHANGE: ACTION BY STATES TO ADDRESS GREENHOUSE GAS EMISSIONS 10-17 (Jan. 18, 2007), available at <http://fpc.state.gov/documents/organization/80733.pdf>.

113. See, e.g., European Union Emissions Trading Scheme, http://ec.europa.eu/environment/climat/emission/mrg_en.htm (last visited Jan. 10, 2009); AUSTRALIAN GOV'T, DEP'T OF CLIMATE CHANGE, AUSTRALIA'S NATIONAL GREENHOUSE ACCOUNTS, <http://www.greenhouse.gov.au/inventory/> (last visited Jan. 10, 2009).

114. Andrew Schatz, *Regulating Greenhouse Gases by Mandatory Information Disclosure*, 26 VA. ENVTL. L.J. 335 (2008).

115. *Id.* at 365-67.

116. *Id.* at 382 (citing MARY GRAHAM, HARVARD UNIV. INNOVATIONS IN AM. GOV'T PROGRAM, INFORMATION AS RISK REGULATION: LESSONS FROM EXPERIENCE 5 (May 2001), available at <http://www.innovations.harvard.edu/cache/documents/0/74.pdf>).

Schatz's proposed GGRI is an interesting idea, particularly because it incorporates the elements of an effective disclosure system.¹¹⁷ However, because the GGRI is not part of the periodic reporting system required by the securities laws, it would not be a sufficient means of getting information to securities investors. By Schatz's own admission, investors may not have the time and energy to find the GGRI information.¹¹⁸ Moreover, the GGRI would rely on The Greenhouse Gas Protocol adopted by the World Resources Institute, a data-based reporting system calling for reporting of "scope 1 and scope 2 emissions," "emissions data for all six GHG's separately (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆)" and "direct CO₂ emissions from biologically sequestered carbon," among other things.¹¹⁹ This information would be appropriately standardized, but even if an investor could find the GGRI, the level and kind of raw detail in a GGRI is still unlikely to be understood by even the most sophisticated investor. The GGRI is geared towards technical information to accomplish risk reduction.¹²⁰ Investors need a version of the risks posed by GHG emissions that they can understand.

The sheer number of registries and reporting systems presents an inefficient solution for investors, particularly when considering the kind of technical data that these reporting systems require. If companies were more willing to make disclosures, and investors were able to find them, there are still too many reporting systems for companies to use all of them. Such fractured reporting would only confuse investors, even if they were able to find the different reports and interpret them accurately.

B. CERES Requests for Improved Securities Disclosure

The CERES report in March 2007 (the "CERES Report") encouraged companies to "elevate climate change as a corporate priority and communicate openly with investors about their strategies and responses."¹²¹ The CERES Report contains specific recommendations for climate change reporting under the securities laws, relying heavily on

117. *Id.*

118. Schatz, *supra* note 114, at 391-92. To be clear, Schatz's goal for the GGRI was not based on getting information to investors.

119. THE GREENHOUSE PROTOCOL INITIATIVE, A CORPORATE ACCOUNTING AND REPORTING STANDARD 63 (Mar. 2004), available at <http://www.ghgprotocol.org/files/downloads/Publications/ghg-protocol-revised.pdf>.

120. Schatz, *supra* note 114, at 382.

121. CERES REPORT, *supra* note 1, at ii.

the Global Framework for Climate Risk Disclosure.¹²² The Global Framework for Climate Risk Disclosure was developed by fourteen institutional investors in October 2006 to standardize climate risk disclosure.¹²³ Specifically, the four elements of disclosure are: (1) disclosing historical, current and projected greenhouse gas emissions; (2) analyzing climate risk and emissions management; (3) assessing physical risks; and (4) analyzing regulatory risks relating to greenhouse gases.¹²⁴

The CERES recommendations are well thought out and clear, but they do not represent the first requests from investors for more climate change risk disclosure. Requests have been coming from institutional investors for twenty years.¹²⁵ These repeated requests have resulted in more disclosure in periodic securities filings, but progress has been slow, as indicated by responses to recent surveys that still show investors receiving approximately 25% of the information they want.¹²⁶ While the CERES recommendations are laudable, they have not gained sufficient traction in their present form. They are effecting change too slowly, given the enormity and complexity of the global warming problem and the apparent corporate resistance to voluntary disclosure. Part IV of this Article proposes paring back some of the CERES guidelines to better fit the securities regulation scheme, and suggests the SEC should use these slimmer guidelines as a means of implementing mandatory disclosure of climate change risks.

C. Climate Risk Petition to SEC

A collection of institutional investors, governmental officers, attorneys general, environmental organizations and non-profit groups is addressing the disclosure issue more directly under the securities law framework. In the aforementioned Climate Risk Petition, these groups are asking the SEC to issue interpretive guidance for reporting climate change issues under existing mandatory disclosure rules and regulations, including Items 101, 103 and 303 of Regulation S-K.¹²⁷ The petition

122. *Id.* at 3.

123. *Id.*

124. *Id.* This Article will return to these four elements when formulating a framework for mandatory disclosure under the securities laws.

125. White, *supra* note 15, at 32, 47-50.

126. See *supra* notes 76-78 and accompanying text.

127. CLIMATE RISK PETITION, *supra* note 1, at 15-18. The Climate Risk Petition

also discusses financial disclosures of climate change risks under FASB No. 5.¹²⁸ Specifically, the petition requests prompt “clarification” from the SEC that registrants must review relevant information about climate change risks and disclose material information associated with climate change physical risks and legal proceedings, as well as financial risks and opportunities associated with CO₂ emissions.¹²⁹

The core concept underlying the Climate Risk Petition is that climate change is now material for many, if not most, companies.¹³⁰ The Climate Risk Petition asserts that climate change risks are important to investors, as indicated by the calls for change coming from investor groups.¹³¹ The petition suggests that it will be enough if the SEC clearly

relies on a Friends of the Earth report descriptively entitled *Fifth Survey of Climate Change Disclosure in SEC Filings of Automobile, Insurance, Oil & Gas, Petrochemical, and Utilities Companies*, issued in October 2006. *Id.*; MICHELLE CHAN-FISHEL, FRIENDS OF EARTH – US, FIFTH SURVEY OF CLIMATE CHANGE DISCLOSURE IN SEC FILINGS OF AUTOMOBILE, INSURANCE, OIL & GAS, PETROCHEMICAL, AND UTILITIES COMPANIES (Oct. 2006), available at <http://www.foe.org/camps/intl/SECFinalReportandAppendices.pdf>. In October 2007, the Free Enterprise Action Fund (FEAF) also petitioned the SEC to require companies to disclose risks associated with global warming regulations, but with a different underlying purpose. The FEAF proposal seeks disclosure about regulatory risk as a means of exposing the high cost of regulation, with a view to curtailing additional global warming regulation. Press Release, Free Enterprise Action Fund, SEC Petitioned to Require Companies to Disclose Risk of Global Warming Regulation; Free Enterprise Action Fund (Ticker: FEAOX) Says Companies Risk Earnings While Keeping Shareholders in the Dark (Oct. 30, 2007), <http://www.freeenterpriseactionfund.com/release103007>. FEAF considers social responsibility to be “anti-business.” Free Enterprise Action Fund, Advocacy, <http://www.freeenterpriseactionfund.com/advocacy.html> (last visited Jan. 10, 2009). FEAF is also involved in the shareholder proposal process. FEAF has identified companies with stated climate change policies that have supported global warming regulation, and asked those companies to disclose the cost of the regulatory uncertainty. *See, e.g.*, General Electric, SEC No-Action Letter, 2007 WL 329028 (Jan. 31, 2007); PepsiCo, SEC No-Action Letter, 2008 WL 555650 (Feb. 28, 2008). Many of the FEAF shareholder proposals refer to global warming as “junk science.” *See, e.g.*, General Electric, SEC No-Action Letter, 2007 WL 329028, at *8 (Jan. 31, 2007) (“Is junk science-based global warming regulation what the world needs?”).

128. CLIMATE RISK PETITION, *supra* note 1, at 15.

129. *Id.* at 53, 56.

130. *See id.* at 13-14.

131. The petition contains a list of advisory services, investment research firms, market indices and mutual funds relating to climate change issues. *Id.* at 35-38. It also cites some of the investor initiatives described in the text accompanying notes 101-26, such as GRI and the Carbon Disclosure Project. *Id.* at 39-40.

affirms that registrants must give “close and well informed attention” to climate change risks and disclose material effects of climate change and greenhouse gas emissions on their operations and financial condition.¹³² Thus, the petition primarily asks the SEC to declare climate change risks important enough for companies to evaluate.¹³³ It then relies on existing securities laws to mandate disclosure if the companies find material information in that evaluation.¹³⁴

The Climate Risk Petition recognizes that the securities regulatory scheme already has in place a mandatory disclosure system based on rules in Regulation S-K and the concept of materiality.¹³⁵ However, the current disclosure system is not tailored to global warming risks, and the SEC has been unclear about its policies relating to climate risk disclosure under the securities laws.¹³⁶ This explains the petition’s request for “clarification” from the SEC regarding climate change disclosure under the securities disclosure system, as well as its plea for the SEC to act promptly.

Yet the Climate Risk Petition is unclear about what it really wants. In several places, it mentions broad categories of disclosure, including: (1) physical risks, (2) financial risks and opportunities associated with greenhouse gas regulation, and (3) legal proceedings.¹³⁷ It also requests that the SEC “set forth the elements of disclosure appropriate for those companies that determine that climate risk has a material impact on their performance and operations.”¹³⁸ The Climate Risk Petition does not, however, guide the SEC with respect to what the “elements of disclosure” are, beyond having mentioned the importance of physical, financial and legal risks and opportunities.

In fact, the Climate Risk Petition seems to be afraid to ask for too much. Its introduction calls for “a statement from the Commission that companies must consider climate risk in their review of information that may be material and subject to disclosure” and states that “the Com-

132. *Id.* at 56.

133. *Id.* at 9, 14.

134. *See id.* at 15-20.

135. *See supra* Part I.

136. *See Wallace, supra* note 68, at 319-21; U.S. GOV’T ACCOUNTABILITY OFFICE, REPORT TO CONGRESSIONAL REQUESTERS, ENVIRONMENTAL DISCLOSURE: SEC SHOULD EXPLORE WAYS TO IMPROVE TRACKING AND TRANSPARENCY OF INFORMATION 16-17 (July 2004), available at <http://www.gao.gov/new.items/d04808.pdf>.

137. CLIMATE RISK PETITION, *supra* note 1, at 53.

138. *Id.* at 52.

mission should clarify that, under existing law, registrants must disclose any and all material information related to climate change.”¹³⁹ While the petition asserts that the physical, financial and legal risks relating to climate change “*may* be . . . subject to disclosure,” it fails to suggest the SEC make those elements part of the clarification.¹⁴⁰ Finally, in the closing paragraph, the petition requests “simply . . . a clear affirmation that . . . registrants must give close and well informed attention to potential climate change risks that may affect them and . . . consistent with established law, disclose material information relating to the impacts of climate change and greenhouse gas regulation”¹⁴¹

Although the Climate Risk Petition mentions broad categories of disclosure, the introduction and final paragraphs appear to seek nothing more than a declaration from the SEC that companies should do what the securities laws already require them to do. Accordingly, reporting companies may view any such SEC guidance or “clarification” neutrally, because it only rehashes the companies’ already-existing duties under the securities laws. Perhaps there would be an uptick in the number of corporations that investigate climate change matters, simply because the issuance of guidance would mean the SEC is showing an interest. Nevertheless, the decision about which matters to investigate and which matters are material would remain with the same managers making those decisions today under the same securities laws in effect today, clouded by the same heuristics.¹⁴² So far, that has not been a successful means of achieving effective climate change risk disclosure.

D. An Analogy to “Y2K”: Is SEC Rulemaking on Climate Change Risk Disclosure Appropriate?

The Climate Risk Petition is the most recent and most direct attempt to improve climate change risk disclosure in securities law filings. Its approach is to seek guidance from the SEC regarding compliance with existing securities laws. That prompts the question: Should the SEC’s framework for disclosure of material climate change risks be stated through guidance regarding the applicability of existing laws and rules, or through the more formal rulemaking process?

139. *Id.* at 9.

140. *Id.* (emphasis added).

141. *Id.* at 56.

142. *See supra* notes 90-100 and accompanying text.

The climate change risk disclosure issue finds some similarities to the “Year 2000” disclosure issue faced by public companies in the late 1990s. Like climate change risk disclosure, many public companies were already addressing the Year 2000 problem in their disclosures.¹⁴³ The SEC noted, “[w]hile the number of companies disclosing Year 2000 issues has increased dramatically, the task force surveys show that many companies are not providing the quality of disclosure that we believe investors expect.”¹⁴⁴ Like climate change issues, the solutions to the Year 2000 problem were not entirely clear at the time the SEC decided to act, but time was of the essence.

In the Year 2000 situation, the SEC chose the guidance approach to assist public companies with their Year 2000 disclosures.¹⁴⁵ There were several reasons for this approach. The process for issuing SEC guidance is much more nimble – and arguably more suited to a moving and evolving target – than rulemaking. Rulemaking often begins with a “concept release” that outlines the broad issues to be addressed and seeks public responses to a series of questions.¹⁴⁶ If, after receiving the public responses, the SEC decides to continue the rulemaking process, it issues a “proposed rule,” which is essentially a good draft of the rule accompanied by the SEC’s explanation of the reasoning behind the provisions.¹⁴⁷ The time period between a concept release and proposed rule varies, but as with legislation, drafting a formal rule takes time and study. The proposed rule is then made available for comment by members of the public for a short time period, usually between 30-60 days,¹⁴⁸ although for high profile or complex rules the time period may be

143. Interpretation: Disclosure of Year 2000 Issues and Consequences by Public Companies, Investment Advisers, Investment Companies, and Municipal Securities Issuers, Securities Act Release No. 33-7558 (July 29, 1998), *available at* <http://www.sec.gov/rules/interp/33-7558.htm> [hereinafter SEC Year 2000 Release].

144. *Id.*

145. *Id.*

146. *See* SEC, SEC Concept Releases, <http://www.sec.gov/rules/concept.shtml> (last visited Jan. 10, 2009).

147. *See* SEC, SEC Proposed Rules, <http://www.sec.gov/rules/proposed.shtml> (last visited Jan. 10, 2009).

148. *See, e.g.*, Proposed Rules for Nationally Recognized Statistical Rating Organizations, Exchange Act Release No. 34-57967 (June 16, 2008), *available at* <http://www.sec.gov/rules/proposed/2008/34-57967.pdf> (allowing 39 days for public comment); *see also* SEC, The Investor’s Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation, <http://www.sec.gov/about/whatwedo.shtml> (last visited Jan. 10, 2009).

longer.¹⁴⁹ After the comment period, the SEC studies the responses and, if warranted, formulates a final rule.¹⁵⁰

The SEC issued guidance for the Year 2000 problem in part because it did not have time to wait for the rulemaking process to be completed, particularly in light of the fact that the release was adopted only 17 months before the calendar turned to 2000.¹⁵¹ In addition, it could have more easily updated its guidance with subsequent releases, as the problems associated with the Year 2000 became more evident. In other words, guidance allowed the SEC to react to the Year 2000 problem “on the fly,” or at least as close to that concept as a large government agency is able to get. Similarly, SEC guidance would allow a quick response to the climate change disclosure problem, but would also permit the flexibility to update the response as climate change effects and solutions evolve.

Also, like climate change disclosure, the Year 2000 problem was not a problem for many public companies, and even those companies affected by the Year 2000 issue were affected in different ways. The SEC made clear that its statement regarding disclosure of the Year 2000 problem was not a declaration that every company had a Year 2000 problem, even though every company probably owned a computer.¹⁵²

149. See, e.g., Shareholder Proposals Relating to the Election of Directors, Exchange Act Release No. 34-56161 (July 27, 2007), available at <http://www.sec.gov/rules/proposed/2007/34-56161.pdf> (allowing 67 days for public comment on the high-profile issue regarding proxy proposals and election of directors); Modernization of the Oil and Gas Reporting Requirements, Securities Act Release No. 33-8935 (June 26, 2008), available at <http://www.sec.gov/rules/proposed/2008/33-8935.pdf> (allowing 74 days for public comment on a rule involving complex and controversial methods of calculation).

150. An illustration may be helpful. In December 2007, the SEC issued a concept release regarding changes to disclosure requirements relating to oil and gas reserves. Concept Release on Possible Revisions to the Disclosure Requirements Relating to Oil and Gas Reserves, Securities Act Release No. 33-8870 (Dec. 12, 2007), available at <http://www.sec.gov/rules/concept/2007/33-8870.pdf>. The SEC allowed approximately two months for comment. *Id.* at 1. In June 2008, the SEC published its proposed rule on the issue, and allowed until September 2008 for public comment on the proposed rule. Modernization of the Oil and Gas Reporting Requirements, Exchange Act Release No. 33-8935 (June 26, 2008), available at <http://www.sec.gov/rules/proposed/2008/33-8935.pdf>. The comment period expired September 8, 2008. With a September comment date and a complex rule, it seems unlikely that the final rule will appear within 12 months of the concept release.

151. SEC Year 2000 Release, *supra* note 143.

152. See Interpretation: FAQ About the Statement of the Commission Regarding

The SEC wrote that “[m]erely because a matter was addressed in the Release does not mean it applies to every company.”¹⁵³ Similarly, not every company is affected by climate change risk to the same degree. Arguably, the less pervasive the subject matter, the less likely it is a candidate for the more formal rulemaking process.

Yet there is something unsettling about mere “guidance” on climate change risk disclosure. Climate change risk has a permanence that the Year 2000 computer glitch did not. The consequences are presumably greater as well. Guidance serves as no more than an interpretation of existing law, without carrying the force of law. Given the perhaps infinite time horizon and consequences associated with climate change issues, guidance has the appearance of a weak response, particularly if it consists of a mere SEC pronouncement that companies should adhere to the strictures of current disclosure regulations, which seems to be the crux of the Climate Risk Petition.¹⁵⁴

Importantly, the SEC rulemaking process carries the force of law and has a permanence that mere guidance does not. It is that force and permanence that provides the greatest impact on improving climate change risk disclosure. Unlike the Year 2000 problem, there is no definable end date for climate change; that, too, seems to warrant a more permanent and formal pronouncement. Although there is a sense of urgency about climate change risks, there is no hard and fast date (like December 31, 1999) by which the task must be accomplished. There is time for rulemaking on climate change risk disclosure.

Of course, the science of climate change is a moving target. The rules might need to evolve over time. The rules may be amended, which would entail the rulemaking process again and might not be nimble enough to keep up with the changes. But the SEC would still have, after adopting formal rules, the flexibility to issue guidance with respect to those rules, thus attacking the problem with the best features of both rulemaking and guidance.

Moreover, climate change risk disclosure is an area that could benefit from public comment. While the particular details of each Year 2000 problem were still being analyzed in 1998, the general effect of the problem (computer shutdowns) and the broad solution (fix the dates in

Disclosure of Year 2000 Issues and Consequences by Public Companies, Securities Act Release No. 33-7609 (Nov. 9, 1998), available at <http://www.sec.gov/rules/interp/33-7609.htm>.

153. *Id.*

154. *See supra* notes 127-41 and accompanying text.

the computer) were apparent. Public comment from investors would likely have added little substance to the SEC's pronouncement and would have only delayed the process. In contrast, in many cases even broad solutions to climate change risk are still in development, and the number of ways industries and companies are affected by and affect climate change remains to be discovered. Public input from various stakeholders would inform the rules.

If the SEC takes the rulemaking path, it will need to provide a list of specific climate change disclosures, like those requested of companies in the CERES report.¹⁵⁵ An overly broad list would potentially capture too many issues, trapping some companies in its net with respect to issues that are irrelevant to them. Conversely, a narrow list would capture too few. The SEC is not inexperienced in this regard, however. Regulation S-K is replete with lists that apply to some, but not all companies.¹⁵⁶ And, the same concerns arose in the SEC's release for the Year 2000 problem.¹⁵⁷

The next section of this Article recommends a list of mandatory climate change disclosures that would be appropriate for inclusion in either SEC guidance or rulemaking, in the hope of balancing the investor's need for information and the company's ability to comply.

PART IV. PROPOSED ELEMENTS OF MANDATORY CLIMATE CHANGE DISCLOSURE IN SECURITIES FILINGS

Unlike the Climate Risk Petition, the CERES report contains detailed information about what investors want with respect to climate change disclosure.¹⁵⁸ The more detailed guidelines likely stem from the CERES report's call for voluntary disclosure, whereas the Climate Risk

155. CERES REPORT, *supra* note 1, at 15.

156. *See generally* Regulation S-K, 17 C.F.R. §§ 229.10-.915 (2007).

157. *See* SEC Year 2000 Release, *supra* note 143. The categories of information for Year 2000 disclosure were "(1) the company's state of readiness; (2) the costs to address the Company's Year 2000 issues; (3) the risks of the company's Year 2000 issues; and (4) the company's contingency plans." *Id.* But, the same broad-based list would not be feasible for climate change disclosure. Unlike the Year 2000 problem, the boundaries of which were fixed, the climate change problem is comprehensive, multifaceted, and to some degree, still undocumented. A list like the Year 2000 disclosure list – or even the categories suggested by the Climate Risk Petition – would be far too broad to balance investors' need for information and the company's ability to reasonably comply.

158. CERES REPORT, *supra* note 1, at §§ 3.1.a, 3.2.a, 3.3.a, 3.4.a.

Petition asks the SEC directly for guidance on compliance with mandatory disclosure items. The CERES guidelines form a suitable starting point for creating mandatory disclosure of climate change risks, whether through SEC rulemaking or guidance.¹⁵⁹

Because the CERES report seeks voluntary disclosure, however, it requests some information that would not be proper for mandatory disclosure under the securities laws. For one, the CERES requests include items that are generally inconsistent with other aspects of the securities regulation scheme, as detailed further below. Moreover, some of the requested information runs the risk of being overly complex or too voluminous. In fact, too much disclosure and overly-complex disclosure actually hinder good decision making by investors.¹⁶⁰ The “raw” reporting systems of GRI, the Carbon Disclosure Project, and the proposed Greenhouse Gas Release Inventory suffer significantly from this problem; the CERES recommendations less so. Nevertheless, an effective disclosure system needs to be reasonably concise.

This Part sets forth the specific CERES report requests and pares them down to disclosure items suitable for mandatory disclosure rules or guidance from the SEC. The CERES categories are:

- Category 1: Strategic analysis of climate risk and emissions management;
- Category 2: GGH emissions disclosure;

159. Reliance on CERES as a framework for securities disclosure is not a new idea. In 1999, Professor Williams suggested that the CERES principles were a “possible prototype” for social disclosure in securities law filings. Williams, *supra* note 59, at 1202, n.12. At that time, CERES was in the process of standardizing its reporting guidelines. *Id.* The CERES guidelines at the time asked companies to report on regulatory schemes in the areas of air and water quality, wildlife and habitat protection, and chemical and radioactive material regulation, among other things. *Id.* at n.506. It also sought information on products, a company’s supply chain, emissions, workplace health and safety, and several other topics. *Id.* at n.507. The CERES report format at the time was not focused on climate change risks, but rather, the broader spectrum of environmental risks. *Id.* One of the benefits Professor Williams saw in the CERES guidelines was the fact that the format was somewhat standardized, allowing for cross-company comparisons. *Id.* Ten years have passed since the CERES report cited in Professor Williams’s article. In that time, CERES has added significant focus on climate change recommendations, which serve as the starting point for the proposed mandatory disclosure system advocated in this article.

160. Ripken, *supra* note 92, at 146-47 (citing *TSC Indus. v. Northway, Inc.*, 426 U.S. 438, 448-49 (1976)).

- Category 3: Physical risks; and
- Category 4: Regulatory risks.¹⁶¹

The recommendations below better reflect the detail investors want in those categories – as compared to the Climate Risk Petition request – but do not overreach into areas that would be problematic for mandatory disclosure or inconsistent with the existing securities disclosure scheme. The recommendations also focus on simplifying the information in hopes of making the information more useful to investors.

*A. Category 1: Strategic Analysis of Climate Risk
and Emissions Management*

The CERES report requests three categories of disclosure relating to the strategic analysis of climate risk and emissions management: (1) a climate change policy statement, (2) a corporate statement of its risk mitigation efforts, and (3) a description of corporate governance matters related to climate change risks.¹⁶² What investors seek is an analysis of the challenges and opportunities faced by the company, including how it affects the company's ability to compete in the marketplace.¹⁶³

1. Climate Change Policy Statement

CERES requests a climate change policy statement reflecting “the company’s current position on climate change, its responsibility to address climate change, and its engagement with governments and advocacy organizations to affect climate change policy.”¹⁶⁴

The CERES-recommended climate change policy statement should be mandatory for all companies in their annual reports.¹⁶⁵ Although the full scope of climate change remains unknown (and will remain that way for some time), one would be hard-pressed to identify a company that did not face one or more potential risks, given what scientists currently know about the effects of climate change. For that reason, the climate

161. CERES REPORT, *supra* note 1, at 15.

162. *Id.* at 15-16.

163. *Id.* at 15.

164. *Id.*

165. Presumably, an annual statement of policy would be sufficient because policy changes do not normally take place with a frequency warranting quarterly disclosure.

change policy statement should not be tied to a materiality standard, but rather, should be a required statement for every company.

Companies with a climate change policy should have no difficulty including that policy in annual reports to the SEC. Those without one should be required to either develop a policy or reveal to investors that they have not adopted one. In that regard, the mandatory disclosure rule or guidance could provide companies with opt-out language. In lieu of describing its climate change policy, a company could be permitted to include a statement that the company does not have a climate change policy as of the time of the periodic filing, followed by an optional brief explanation of why no climate change policy is in place.

Investors would gain a better understanding of the company's position on climate change from a policy standpoint. It should be relatively easy for investors to determine whether the company has a serious commitment to addressing climate change risks, or whether the company is lagging behind the market in that regard. For companies with weak policies – or without a climate change policy at all – investors would be able to exert pressure on the company to adopt a meaningful policy or simply choose not to invest in that company.

2. Emissions Management

CERES requests an explanation of the company's emissions management activities, to elucidate what the company is doing to minimize its own risks associated with climate change, as well as identifying potential opportunities.¹⁶⁶ Specifically, the CERES report requests information about how the company is addressing greenhouse gas emissions, including reduction targets, development of new technologies and products and prospective timelines.¹⁶⁷

Every company should be required to disclose in its annual report significant actions the company is taking to minimize its risks from the effects of climate change, and to identify opportunities. There is some evidence that companies are already identifying opportunities, but many are not identifying the risks and describing steps to minimize those risks.¹⁶⁸ Periodic reporting of efforts to reduce or offset greenhouse gas

166. CERES REPORT, *supra* note 1, at 15.

167. *Id.* at 15-16.

168. *See supra* notes 72-73 and accompanying text.

emissions, as well as establishing reduction targets and timelines and investing in new technologies and products, must be part of this disclosure process.

Unlike the climate change policy statement, the disclosure of the company's actions to minimize climate risk and to avail itself of opportunities should be subject to the materiality standard.¹⁶⁹ The company that discloses no actions to minimize climate risk should be required to include a statement in its periodic filings that "there are no material risks to the company associated with climate change."

In effect, this does what the Climate Risk Petition seeks: it acknowledges climate change risk as worthy of investigation, and potentially material. This would eliminate the idea that climate change risk, given the long time horizon and confusing science, is not material enough for companies to investigate. It also would ensure investors that the company has not simply forgotten about the issue. Companies that believe there are no material risks from climate change would be required to say so explicitly, to inform investors that the risks have actually been considered. At the same time, management would not be forced to disclose risks that are investigated and determined to be nonexistent or immaterial.

3. Corporate Governance and Climate Change

CERES requests a description of corporate governance actions relating to climate change, including the names of executives who have oversight of climate risk, whether the board is involved in the climate change decision making process and whether executive compensation is linked with meeting climate risk objectives.¹⁷⁰

Every company should be required to include a statement in its annual report regarding the board's and management's involvement in addressing climate change risk. A simple statement regarding the frequency with which the board is updated on climate change policies and

169. The CERES report uses the word "significant," but introducing a new standard would be problematic. See CERES REPORT, *supra* note 1, at § 3.1.a (stating that investors urge companies to disclose a strategic analysis that includes an explanation of all significant actions the company is taking to minimize its climate risks). The concept of materiality likely captures all actions that would be considered significant, and would fit within the existing securities law framework.

170. CERES REPORT, *supra* note 1, at 16.

actions, and the titles of executives in charge of addressing climate change risk, should suffice. For the same reasons advocated with respect to the climate change policy statement, there is no need to subject this item to a materiality standard. Even companies that ultimately determine they do not have any material climate change risks must have investigated the issue and assigned a management team to the evaluation. Disclosing that the board and management are involved should be painless for reporting companies.

Meanwhile, investors could take comfort in knowing that the company has gone beyond mere policy statements and has engaged the board and management in the process of implementing the policy. Although the CERES report suggests identifying the executives by name, it seems sufficient to identify them by title. The names of some of the executives in charge of climate change risk may not already be disclosed under other SEC rules and regulations, because some of the positions may not be at the highest levels of the organization. Introducing new names in the periodic filings may create privacy and liability issues for some of the individuals involved, without providing investors with a sufficient benefit to outweigh the potential harm to the individual members of management. The executives' titles alone would be sufficient for investors to know that the company has engaged members of management in the climate change risk process.

The CERES report also states, "companies should disclose whether executive compensation is tied to meeting corporate climate objectives, and if so, a description of how they are linked."¹⁷¹ This constitutes an example of a CERES recommendation that ought to remain voluntary. As discussed above, there are privacy and liability concerns associated with revealing the names of executives who are not already named in periodic filings. Revealing their compensation incentives would exacerbate that problem. In addition, recent executive compensation disclosure reforms have been controversial.¹⁷² Requiring additional compensation disclosure relating to climate change risk would only fan the flames.

171. *Id.* at 16.

172. *See, e.g.*, Jerry W. Markham, *Regulating Excessive Executive Compensation – Why Bother?*, 2 J. BUS. & TECH. L. 277 (2007); *see also* Executive Compensation and Related Person Disclosure, Securities Act Release No. 33-8732A (Nov. 7, 2006), available at <http://www.sec.gov/rules/final/2006/33-8732a.pdf>. The SEC received over 20,000 comments on its proposed executive compensation rule. SEC, COMMENTS ON PROPOSED RULE: EXECUTIVE COMPENSATION AND RELATED PARTY DISCLOSURE, <http://www.sec.gov/rules/proposed/s70306.shtml> (last visited Jan. 10, 2009).

B. Category 2: GGH Emissions Disclosure

Regarding GGH emissions, CERES urges, that “companies should disclose their total greenhouse gas emissions. Investors can use this emissions data to help approximate the risk companies may face from future climate change regulations.”¹⁷³

Specifically, CERES requests historical emissions data since 1990, current emissions data and estimated future emissions from operations, including those associated with the supply chain. The report recommends using the Corporate Accounting and Reporting Standard of the Greenhouse Gas Protocol.¹⁷⁴

There are several problems with including the CERES recommendation, as written, as an element of mandatory disclosure through rulemaking or guidance. First, it requests what amounts to a “data dump” of greenhouse gas emissions. While some investors have the wherewithal to interpret the emissions data, the vast majority of investors will be no more informed than they would be in the absence of the data. The Corporate Accounting and Reporting Standard of the Greenhouse Gas Protocol referenced in the report is the same standard recommended by Andrew Schatz for his proposed Greenhouse Gas Release Inventory, and suffers from the same deficiencies.¹⁷⁵ In other words, most investors will not be able to approximate climate change risk from the data simply because most investors are not qualified to do so. Nor will investors be able to compare the emissions data provided by one company with the emissions data provided by another.¹⁷⁶

Second, requiring data from as far back as 1990 is inconsistent with the historical data required by SEC rules in every other context. For example, companies report five years’ worth of historical data in their annual report filings on Form 10-K¹⁷⁷ and the description of the business

173. CERES REPORT, *supra* note 1, at 20.

174. *Id.*

175. *See supra* notes 119-20 and accompanying text.

176. Investors would be able determine who has greater emissions, of course, but without the proper context. Bigger companies and companies in certain industries (trucking companies, for instance) might have bigger emission numbers than smaller companies or companies in other industries (financial services, for instance), but those bigger numbers may not be indicative of poor climate change policies and procedures.

177. Regulation S-K, 17 C.F.R. § 229.301(a) (2007). Smaller reporting companies need not provide the financial disclosures required by Item 301(a). *Id.* § 229.301(c).

experience of the management team similarly looks back only five years.¹⁷⁸ To the extent greenhouse gas emission data is required, it should not consist of data covering nearly 20 years. Rather, the historical reporting should go back only as far as necessary to allow investors to see trends. Five years of data should be sufficient for that purpose, although public comment on a proposed rule may suggest extending the period to seven or even ten years.

Third, requiring projected emissions for the future is contrary to the current reporting scheme under SEC rules with respect to other topics. Companies are not required to include forecasts or projections in their periodic reports.¹⁷⁹ When they do so voluntarily, they are able to use statutory safe harbors for “forward looking statements.”¹⁸⁰ Accordingly, the projected future emissions component of the CERES recommendation should be left to voluntary disclosure.

A better approach from the standpoint of mandatory disclosure is to blend meaningful current and historical greenhouse gas emissions data with the description of the actions management is taking to minimize climate risk, as described in the recommendations for strategic analysis of climate risk and emissions management. This amounts to a “management’s discussion and analysis” of greenhouse gas emissions. Because investors are unlikely to have the ability to interpret raw emissions data, management should interpret the data for investors, in language investors can understand. Instead of investors approximating the risk, management should describe that risk in a clear and straightforward manner, incorporating emissions data to illustrate the analyses. By analogy, this reader-friendly approach was the one taken in the 2006 executive compensation disclosure rules adopted by the SEC.¹⁸¹ It would also be useful for this reader-friendly discussion and analysis to

178. *Id.* § 229.101(a). Smaller reporting companies need only look back three years. *Id.* § 229.101(b).

179. However, the SEC does “encourage” projections. *Id.*

180. § 229.303(c); Securities Act of 1933, 15 U.S.C. § 77z-2 (2007). Companies providing projections are also advised to provide a set of assumptions and explanations describing the limitations of those projections. 17 C.F.R. § 229.10(b)(3). Projections significantly increase the burden on the reporting company.

181. Executive Compensation and Related Person Disclosure, Securities Act Release No. 33-8732A (Nov. 7, 2006), available at <http://www.sec.gov/rules/final.2006/33-8732a.pdf>.

appear separately from the financial MD&A already required in the annual reports.¹⁸²

C. Category 3: Physical Risks

CERES states as part of its recommended disclosure that the physical risks associated with climate change be included in company reporting.

CERES encourages companies to “analyze and disclose material, physical effects that climate change may have on the company’s business and its operations, including their supply chain.” This analysis should describe how climate affects the operations generally, and should take into account changed weather patterns, increases in sea levels, availability of water, global warming and the potential health issues affecting the workforce. CERES also asks for a description of how the company intends to adapt to those physical risks, including a cost estimate of the adaptation.¹⁸³

The CERES recommendations are more detailed, but not dissimilar to the request in the Climate Risk Petition regarding physical risks. The recommendations are appropriately tied to the materiality standard. In that regard, they reflect a company’s existing responsibilities under Items 101 and 503(c) of Regulation S-K.¹⁸⁴ Because the physical risks will vary from company to company, the disclosure of those risks must necessarily be framed in a broad fashion.

Mandatory disclosure of physical risks should follow the standard in the CERES recommendations, including the existing materiality standard under the securities laws. While this may appear to require companies to do what they are already required to do, the specific delineation of physical risks from climate change ought to highlight the issue for companies. According to CERES, only one-third of the information

182. The SEC should consider whether smaller reporting companies should be exempt from the emissions disclosure altogether, or whether the look back period should be shorter than for larger issuers. Since smaller reporting companies are exempt from including financial statements and have reduced MD&A requirements, it is probably appropriate to omit this item from their mandatory disclosure. *See supra* notes 36, 177-79 and accompanying text.

183. CERES REPORT, *supra* note 1, at 23.

184. *See supra* notes 31-44 and accompanying text.

investors want from companies regarding physical risks is actually disclosed.¹⁸⁵ If physical risks of climate change are specifically identified as an item for mandatory disclosure, that fraction is likely to rise. In addition, if a company discloses no physical risks associated with climate change, investors can take more comfort that the risks are not material – as opposed to the current situation, where investors may believe the absence of disclosure means climate change risks may have been overlooked or under-investigated by management.

D. Category 4: Regulatory Risks

According to the CERES Report, investors want to see known trends, commitments and uncertainties associated with climate change that may affect the financial or operating condition of the company.¹⁸⁶ As part of that consideration, investors are interested in how governmental climate change regulations contribute to the financial and operating condition.

CERES requests disclosure of all greenhouse gas regulations imposed in all the countries where a company operates, and an estimate of the impact of those regulations. It also requests projected carbon costs of meeting specified emissions reductions by 2015. Finally, it requests scenario planning, by which companies define “a limited number of plausible greenhouse gas regulatory scenarios” and describe the effect on the company and shareholder value, including in quantitative terms.¹⁸⁷

Much of the CERES recommendation is covered by Item 303 of Regulation S-K in management’s discussion and analysis of the company’s financial condition.¹⁸⁸ Governmental regulation that has a material effect on the company’s operations and financial condition is a routine subject in that section of the periodic reports. Several of the CERES recommendations go beyond descriptions of risks, however.

The CERES recommendation for a list of *all* greenhouse gas regulations in every relevant country is a fine subject for voluntary disclosure, but inappropriate for mandatory disclosure. Such a list should

185. CERES REPORT, *supra* note 1, at 23.

186. *Id.* at 27.

187. *Id.*

188. Regulation S-K, 17 C.F.R. § 229.303(a) (2007).

be subject to materiality standards. In addition, the CERES recommendation that companies disclose the cost of emissions reductions at specified percentages by 2015 provides investors with useful information, but not of the type appropriate for mandatory disclosure. The SEC does not require companies to make forecasts or projections.¹⁸⁹ Therefore, requiring companies to make forecasts in connection with mandatory disclosure of climate change risks would likely be enough to prevent any mandatory disclosure rules from passing muster. The same can be claimed of the CERES-recommended “scenario planning.”

A more appropriate approach in the mandatory disclosure context would be for the SEC to highlight in its guidance or rules the potential materiality of government regulations associated with climate change issues. Like the disclosure of physical risks, the specific mention of climate change regulation in SEC guidance or rules ought to cause companies to improve upon their current disclosure of these regulatory risks.¹⁹⁰ Whether a company chooses to forecast emissions reductions or the effects of various scenarios ought to be voluntary, and subject to forward-looking statement safe harbors.¹⁹¹

E. Plain English Disclosure

Certain portions of a written prospectus, required to be delivered in connection with the issuance of securities, must comply with the SEC’s so-called “Plain English” rules.¹⁹² The Plain English rules are designed to make the information in the prospectus – particularly in the risk factors section of the prospectus – more accessible to investors.¹⁹³ The Plain English rules include six basic principles:

189. *See id.* § 229.10(b).

190. CERES reports that less than half of the responding companies provided any regulatory risks associated with climate change at all. CERES REPORT, *supra* note 1, at 27.

191. 17 C.F.R. § 229.303(c); Securities Act of 1933, 15 U.S.C. § 77z-2 (2007).

192. 17 C.F.R. § 230.421(d).

193. *Id.* In a more general way, Rule 421(b) requires that the entire prospectus be clear, concise and understandable. 17 C.F.R. § 230.421(b). The Plain English rules originally applied only to certain portions of prospectuses and to risk factor disclosures. However, the SEC later applied the Plain English rules to the executive compensation disclosure items required in the periodic reports. Executive Compensation and Related Person Disclosure, Securities Act Release No. 33-8732A (Nov. 7, 2006), available at <http://www.sec.gov/rules/final/2006/33-8732a.pdf>.

- Shorter sentences;
- Everyday language and elimination of ambiguity to the extent possible;
- Elimination of passive voice;
- Graphical or tabular presentation of material, particularly when the material is complex;
- Avoidance of legal or business jargon and technical terms; and
- Avoidance of multiple negatives.¹⁹⁴

The disclosure of legal matters – and most other subjects in securities filings – is written primarily by lawyers and features legal jargon, passive voice and ambiguous writing.¹⁹⁵ The SEC’s Plain English rules seek to curtail those tendencies in favor of a more understandable way of communicating with the investing public.¹⁹⁶ Disclosure systems achieve their goals only if the information is described in a clear fashion and in such a way that the investors can understand.¹⁹⁷

The disclosure of climate change risk will likely be written with the aid of scientists and will likely include specialized terminology and other unique features associated with the technical writing commonly utilized by the scientific community. Because of the complexity of climate change risk, particularly GHG emissions data, the mandatory disclosure of emissions data should follow a management’s discussion and analysis approach, as mentioned earlier.¹⁹⁸ In particular, this climate change risk MD&A would benefit from Plain English; without it, investors are unlikely to understand the disclosure. Of course, the Plain English rules would be useful for the other elements of proposed climate change risk disclosure, as well.

Plain English is particularly important as investors rely less on intermediaries to make their investment decisions.¹⁹⁹ Individual invest-

194. Regulation S-K, 17 C.F.R. § 230.421(d)(2) (2007).

195. See Ripken, *supra* note 92, at 186; see also, BRYAN A. GARNER, LEGAL WRITING IN PLAIN ENGLISH 24-25, 34, 37 (2001).

196. See § 230.421(d).

197. Ripken, *supra* note 92, at 146.

198. See *supra* notes 176-82 and accompanying text.

199. Paula J. Dalley, *The Use and Misuse of Disclosure as a Regulatory System*, 34 FLA. ST. U. L. REV. 1089, 1106 (2007); Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 NW. U. L. REV. 135, 166-70 (2002).

ors are increasingly doing their own research and making their own judgments about investments, without a stock broker or financial adviser to help them interpret the data.²⁰⁰ Without a layer of expertise between the investor and the company, disclosure of complex and highly scientific data is potentially less effective.²⁰¹ Applying the Plain English rules to climate change risk disclosure would help alleviate the potential for investors to misunderstand the disclosure, or simply tune it out because of information overload.

V. CONCLUSION

Although there may be some fear that mandating climate change risk disclosure in securities filings will undermine voluntary reporting through other outlets, such as GRI and the Carbon Disclosure Project, the disclosure proposed in this Article is largely consistent with those reporting systems. Companies would not be engaging in duplication of effort, and with electronic filing available in most of those systems, filing in two or three locations should not be burdensome. At most, any duplication of effort would be in applying Plain English to the otherwise raw data that might be disclosed through other systems. No doubt plain writing would be useful even when reporting in the voluntary systems.

It is simply too easy to argue that mandatory climate change risk disclosure will be prohibitively expensive. All disclosure entails some level of expense. The proposed mandatory disclosure guidelines in this Article ought to involve no more expense than the disclosure required by other reporting systems. Importantly, despite the cost factor, climate change risk disclosure does not have to be a negative proposition for companies. Executives who embrace the requirements and produce timely, accurate and comprehensive disclosures will likely find themselves in a better position relative to their competitors, and subsequently will be rewarded by shareholders and potential investors. Transparency is a powerful force behind the Green Wave, and expectations rise daily. . . . Environmental reports are a powerful tool to build trust with all stakeholders.”²⁰² Not only does environmental reporting build trust with investors and other stakeholders, the failure to provide the disclosure introduces a shame factor that may be even more powerful. Moreover, climate change concerns are growing among the populace every day, not

200. See Dalley, *supra* note 199, at 1105-06.

201. See *id.*

202. ESTY & WINSTON, *supra* note 13, at 228.

just investors. A company's employees are increasingly likely to be interested in, and even excited about, climate change initiatives. Rather than seeing them as an unnecessary burden, employees likely will be proud to be part of such a corporate culture.

Some will no doubt object that climate change risk disclosure is merely a system to effect regulation on issues of climate change, and an inefficient one.²⁰³ Whether mandatory securities law disclosure ought to have substantive regulatory goals is the subject of debate.²⁰⁴ On the topic of climate change risk disclosure, however, it should be enough that investors are clamoring for information as part of their decision-making processes. Mandatory disclosure need not be based solely on financial impact, but also can be geared towards providing investors with more information by which to make decisions about company management.²⁰⁵

The mandatory disclosure rules proposed in this Article need not provide a substantive solution to global warming, nor even a perfect means of obtaining all relevant information about climate change risk disclosure. Elected bodies have the power to enact global warming legislation to regulate directly, and increasing public pressure will motivate the elected. In the interim, if mandatory securities law disclosure can provide investors with meaningful and useful climate change risk information to assist them in their investment decisions, it is a nice secondary effect if mandatory disclosure helps motivate more positive corporate attitudes towards global warming until appropriate regulatory legislation arrives.

203. See, e.g., David W. Case, *Corporate Environmental Reporting as Informational Regulation: A Law and Economics Perspective*, 76 U. COLO. L. REV. 379, 380 (2005). Although Professor Case believes disclosure is an important regulatory tool, he is skeptical about whether the securities laws can serve as a "comprehensive informational regulatory" source because of what he characterizes as the SEC's "troubled record on enforcing existing environmental disclosure requirements." *Id.* at 410. However, assuming arguendo that Professor Case is correct, a ramped up disclosure scheme for global warming issues may still be a useful tool, even if it is not comprehensive.

204. See, e.g., Dalley, *supra* note 199, and the sources cited therein; Ripken, *supra* note 92; Williams, *supra* note 59, at 1209-35; Karen Bubna-Litic, *Environmental Reporting as a Communications Tool: A Question of Enforcement*, 20 J. ENVTL. L. 69 (2008) (examining whether mandatory environmental reporting in Australia and Norway translates into better corporate decision making on environmental matters).

205. See Williams, *supra* note 59, at 1204-07; *supra* notes 59-66 and accompanying text.