As members of the Advisory Board for Boston University's Impact Measurement & Allocation Program, we hereby express our support for the following letter of recommendations to the Securities and Exchange Commission, dated June 7, 2021, regarding Climate Change Disclosures.

Nate Dalton

Founder of Daybreak Partners
Co-Founder, Former President and CEO of AMG

John Streur

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June 7, 2021

Hon. Gary Gensler, Chairman
U.S. Securities and Exchange Commission
100 F St NE
Washington, DC 20549

RE: COMMENTS ON CLIMATE CHANGE DISCLOSURES

Dear Chairman Gensler:

We are submitting this in response to your request for comments on the Commission's role in promoting climate risk disclosure posted on 15 March 2021. While there are many important dimensions of climate risk disclosure mentioned in the Commission's notice, this submission focuses on i) registrants' claims regarding future reductions of their carbon *emissions*, and ii) companies' disclosure of their *exposure* to climate risks.

Many of the companies regulated by the SEC are making public statements of their commitments to reduce their greenhouse gas emissions by specified percentages and dates, often to "net zero" emissions by 2050 or sooner. At least one fifth (21%) of the world's 2,000 largest public companies (those on the Forbes Global 2000 list) have already committed to meet net zero targets. Yet, without greater mandatory transparency it is unclear whether such public statements are consistent with the planned activities of the firm. For those companies making such public statements, we believe there should be mandatory disclosure of how they plan to achieve these future targets. This narrative will enable investors to make the important distinctions between those companies who are likely to meet their carbon emissions targets and those who are not.

In practice, most companies choose to disclose relatively little about their plans to reduce emissions other than traditional financial and planning information prepared for the investment community. This information frequently lacks detail and covers a much shorter time horizon than a multi-decade decarbonization commitment. This lack of information leaves investors and analysts with little data on the extensive changes in production processes, capital outlays, and supply chain relationships companies will need in order to decarbonize. There is no requirement today that companies support their public decarbonization claims with any information on how they plan to achieve these emissions reduction commitments.

Decarbonization plans are critical information for improving investment outcomes for professional investment and fund managers, as well as individual citizen-investors. While a notable collection of 2020 targets were met or exceeded, we have also already observed cases where targets have been missed or changed. Greater transparency around the likelihood that such 2030 and 2050 target statements will be achieved, and not simply used for marketing purposes, would benefit the investing public as well as help improve the efficiency of capital allocation.

We have begun researching ways in which greater disclosure of company planning information can give investors and analysts a better basis on which to judge the likelihood of companies achieving their goals. Although our research is in its early stages, it is clear that companies tend to reveal very little information about how they intend to achieve their climate mitigation targets. We therefore suggest that the Commission consider mandating the disclosure of information on how companies intend to achieve whatever emissions reductions commitments they formally adopt.

Requiring information investors can use to evaluate companies claims about future GHG emissions is directly parallel to the Commission's role requiring accurate disclosure of information investors can use to evaluate companies' claims about future revenues, costs, and earnings. In both cases the Commission's objective is to set guidelines that balance the benefits and costs of greater disclosure so as to facilitate an efficient financial marketplace, along with (in this case) furthering the vital social goal of climate change mitigation. Unabated emissions of greenhouse gases (GHG) clearly expose a company to regulatory, financial, and reputational risks, and are therefore one of many climate-related risks investors should take into account as they invest.

Conceptual Approach to Mitigation Disclosure

In attempting to formulate a climate risk and mitigation disclosure rule the Commission faces an especially difficult balancing act. Different industries, and even different firms within the same industry, have very different capital stocks with different adaptability to lower-carbon production methods. Similarly, different industries and firms have different levels of vertical integration, implying that the proportion of total attributable greenhouse gas emissions that are Scope 1, and therefore accurately reportable, varies widely. In addition, the production and investment plans of companies typically include sensitive competitive information.

These and other considerations suggest that any disclosure rule relating to mitigation plans should require a minimum level of disclosure sufficient to allow investors to gauge the likelihood of the company meeting its mitigation targets, but we recommend that the Commission resist making the rule highly prescriptive. We recommend that the Commission describe the type of information to disclose but not create a detailed one-size-fits-all checklist of data all companies in all industries should provide.

Recommended Disclosure Information

Should the SEC set and maintain standards internally, we recommend the following elements of disclosure relating to greenhouse gas reduction commitments from registered firms. Should the SEC pursue a structure for disclosure that relies upon a third-party standard setter, we recommend that the standard setter assures a minimum level of disclosures on emissions and emission reduction plans that includes the following. Wherever possible, we recommend harmonizing the terminology and data points requested with other emerging standards such as the EU environmental Taxonomy, the newly introduced EU Corporate Sustainability Reporting Directive and the Task Force on Climate-related Financial Disclosures (TCFD). Such harmonization can minimize the burden on firms. The disclosure of the below data will allow investors and other constituencies to calculate the likelihood of each firm achieving their greenhouse gas reduction targets.

1. Annual Scope 1, 2, and 3 greenhouse gas emissions for each immediate past year for the entire firm.
    a. GHG emissions need not be broken down by individual greenhouse gas, but the calculation of total CO_2e should incorporate all emissions in the latest GHG protocol.
    b. Scope 1 and 2 emissions should be disaggregated by individual facilities or major product lines.
    c. Scope 3 disclosures should separate upstream emissions (that can be influenced by the firm's own changes in its purchasing) from downstream assumptions about how a sold product will be used and disposed of.
    d. In addition to absolute emissions, companies should be encouraged to additionally report emissions in terms of an output intensity. Intensity values are industry-specific and unique to the category of product delivered (e.g. CO2e/vehicle sold, CO2e/kWh delivered, or CO2e/square foot covered). Many industries, but certainly not all, have already established such common denominators for their product categories through the publications of Product Category Rules in accordance with EN 15804 and ISO 21930 standards. For example, PCRs can be found in multiple online databases such as those housed by the International EPD System and UL Environment. Securities with multiple holdings and products could report multiple intensity values to match their multiple product categories.

2. How offsets are being used to calculate a net-GHG emission value.
    a. GHG emissions values should be disclosed both before and after offsets are added to the calculation. Doing so will help investors understand if net emissions are reduced only via offsets, or if emissions prior to offsets are also being reduced.
    b. The type of offsets should be described. It should also be noted whether the offsets are self-provided or are being purchased from a third-party supplier, and whether its offsets are independent verified or accredited.

3. A narrative description of the company's plans to reduce their GHG emissions and achieve any future-carbon commitments. This narrative should include:
    a. A discussion of changes in production techniques and other operations that will cause the future proportions of Scope 1, 2, and 3 emissions to differ from current proportions. (In other words, does the company now plan to materially increase or decrease its outsourcing of production or other supply chain changes that will affect the proportion of its future emissions that are Scopes 1-3).
    b. The timing of the closure or conversion of owned or controlled facilities to low-carbon operation.
    c. The technologies and processes to be employed to lower emissions in any facility.
    d. The plans for reducing Scope 2 emissions via alternative purchases of electric power.
    e. The plans for reducing upstream Scope 3 emission from suppliers.
    f. The plans for reducing downstream Scope 3 emissions from customers.
    g. The company's future plans to use offsets to lower net GHG emissions targets.

We understand that many firms have not yet done such calculations, and even those that have may not have detailed information to provide in response to some of these questions. In part, answering these

questions will increase managements' attention to their GHG emissions and their options for reducing them. Furthermore, we expect that the answers to these questions will change over time as the companies gain more experience with new low-carbon production processes, their suppliers change production methods, and many other changes occur. The sequence of answers the company provides will help create a track record illustrating each firm's progress improving the specificity and likely success of its commitment.

Investor pressure and firms' reluctance to disclose their exposure to climate change risks

In addition to understanding their portfolio companies' *emissions* and mitigation strategies, understanding their portfolio companies' *exposure* to climate change risks and their adaptation strategies is also of immediate importance to investors. (Note, these climate risks include physical risks (e.g., flooding, wildfires, extreme temperatures), regulatory risks (e.g., carbon tax, emission limits), and other risks (e.g., reputational risks, shifting consumer demands).) In fact, investors are increasingly pressuring their portfolio companies to disclose their climate risk exposure. Given that the SEC is primarily concerned about the protection of investors, the disclosure of firms' climate risk exposure should also be of immediate importance and relevance to the SEC.

In the absence of mandatory climate disclosure requirements imposed by the government, companies are reluctant to disclose their *exposure to climate risks*. As a result, shareholders are often in the dark — they know little about their portfolio companies' exposure to climate change risks or how those risks are being managed. Note, this reluctance might occur *even if* climate risk disclosure would potentially be beneficial for the firm itself.

One reason for this reluctance is a time-based agency conflict between managers and the firm (see Flammer and Bansal, *Strategic Management Journal*, 2017). That is, managers typically have a shorter time horizon than the firms (which arguably aim to sustain their operations indefinitely). As a result, they are likely to underinvest in long-term investment strategies such as climate mitigation and adaptation strategies. Taking into account the differences in the timing of when the benefits and costs of climate risk disclosure materialize, myopic managers are unlikely to disclose their company's climate risks, unless required to do so by mandatory disclosure requirements.

Those companies that do voluntarily disclose are likely to be companies that face lower climate risks. This issue is discussed in detail in a recent study (Flammer, Toffel, and Viswanathan, *Strategic Management Journal*, forthcoming). This study examines whether—in absence of mandated disclosure requirements—shareholder pressure can induce firms to disclose their climate risks (and which type of shareholders are more effective in doing so). The findings indicate that indeed shareholders, especially long-term institutional investors, can trigger the disclosure of climate risks. The study also finds that the stock market responds favorably to such disclosures. More specifically, in the days following a shareholder-induced disclosure of climate-change risks, the disclosing firm's stock price increases by 1.21% on average (on a market-adjusted basis). This suggests that i) investors value higher transparency with respect to climate change risks, and that ii) disclosure tends to benefit disclosing companies. In other words, investors are willing to pay a premium for more transparent companies. The key findings of this study are summarized in a recent Harvard Business Review article and were featured in a blog post by the United Nations' Principles for Responsible Investment.

The fact that investors, especially institutional investors, are increasingly concerned about their portfolio companies' exposure to climate risks is also highlighted by a recent survey of institutional investors (Krueger, Sautner, and Starks, *Review of Financial Studies*, 2020). Specifically, this survey documents that the majority of institutional investors perceive climate risks to have financial performance implications and that climate risk reporting is as important as financial reporting. In fact, one-third of institutional investors believe that climate risk reporting is even more important.

Finally, it is worth noting that demands for climate disclosure are becoming stronger and increasingly sophisticated. The SEC may find guidance in the detailed recommendations (around four areas: governance, strategy, risk management, and metrics and targets) developed by the Task Force on Climate-related Financial Disclosures (TCFD).

We hope that the insights of these studies and our suggestions are helpful in informing the Commission. In summary, we see the aforementioned climate data not only as critical for mitigating the climate crisis but also as financially relevant, and therefore recommend that their disclosure to investors be regulated. Let us conclude by saying how much we appreciate the chance to submit these suggestions and that we applaud the Commission's attention to this critical and challenging issue.

Sincerely,

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Peter Fox-Penner
Professor of the Practice, Questrom School of Business
Co-Director, Boston University IMAP

Nalin Kulatilaka
Professor of Finance, Questrom School of Business
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About Us

Boston University Impact Measurement and Allocation Program (IMAP)

The Boston University Impact Measurement and Allocation Program (IMAP) was established jointly between the ISE and Questrom's Susilo Institute for Ethics in the Global Economy to improve the measurement and use of ESG attributes within the financial investment industry. The IMAP brings together a wide network of academic researchers in collaboration with leading financial industry professionals. Together we strive to better inform investors and asset managers of the climate and societal impacts associated with their investments.

Caroline Flammer, Associate Professor of Strategy & Innovation, and Dean's Research Scholar, Boston University Questrom School of Business

Caroline Flammer is an Associate Professor and Dean's Research Scholar at Boston University. Her research interests are in competitive strategy at the intersection of corporate governance, impact investing, corporate social responsibility, climate change, and innovation. Caroline has published in leading academic journals and is the recipient of numerous prestigious awards. She serves as Associate Editor for both the *Strategic Management Journal* and *Management Science*. Caroline also serves as Chair of the Academic Advisory Committee of the United Nations' Principles for Responsible Investment (PRI), the largest network of responsible investors to date. At BU, she serves as the Academic Director of both the Social Impact MBA program and the university-wide Minor in Sustainable Energy.

Peter Fox-Penner, Co-Director, Impact Measurement & Allocation Program, Boston University

Dr. Fox-Penner is Founder and Director of the Boston University Institute for Sustainable Energy and Professor of Practice at the Boston University Questrom School of Business. His most recent book is *Power after Carbon: Building a Clean, Resilient Grid* (May 2020). His research and writing interests are in the areas of electric power strategy, regulation, and governance; energy and climate policy; sustainable energy and sustainable finance; and the relationships between public and private economic activity. In addition, he is a Partner and Chief Strategy Officer of Energy Impact Partners, one of the largest dedicated clean energy private equity fund groups in the world, and an academic advisor to The Brattle Group, an economic consulting firm where he served for over two decades as principal and chairman. He is on the global leadership council of the World Resources Institute and on the advisory boards of Mobility Impact Partners, the National Regulatory Research Institute's Training Initiative, and PEACE. He is also affiliated with the Energy Futures Initiative. He formerly served as a senior official at the U.S. Department of Energy and the White House Office of Science and Technology Policy.

Nalin Kulatilaka, Co-Director, Impact Measurement & Allocation Program, Boston University

Nalin Kulatilaka is Wing Tat Lee Family Professor of Management and Professor of Finance at Boston University Questrom School of Business, where he also serves as the co-director of the Susilo Institute for Ethics in the Global Economy. His current research interests include impact investing and financing distributed energy resources. He has co-founded several companies, most recently NineDot Energy, where is the Chief Strategy Officer, and serves on the Board of Directors of Assette.

Susan Fredholm Murphy, Executive Director, Impact Measurement & Allocation Program

Susan Murphy is responsible for directing the research and all other day-to-day operations of Boston University's IMAP program. She previously spent 12 years as an environmental sustainability consultant for thinkstep, culminating her time there as the Director of Consulting and Innovation for the firm's North American division. Now acquired by Sphera, thinkstep was the global leader in software and consulting for Life Cycle Assessment (LCA) and corporate ESG reporting tools. In her consulting work, Susan assisted a wide variety of US firms in calculating the environmental impacts of their products and operations. Her clients included Andersen Windows, Armstrong Flooring, Kraft Foods, Keurig Dr Pepper, Thyssen Krupp Elevator, the Metal Construction Association, Whirlpool Corporation, and many others.