Ceres
Sustainability is the bottom line.

January 11, 2021

Mark T. Kim
Chief Executive Officer
Municipal Securities Rulemaking Board
1300 I Street NW, Suite 1000
Washington, DC 20005

Ronald W. Smith
Corporate Secretary
Municipal Securities Rulemaking Board
1300 I Street NW, Suite 1000
Washington, DC 20005

Dear Mr. Kim and Mr. Smith:

I am writing regarding the **MSRB Requests Input on Strategic Goals and Priorities.** As the principal regulator of the $4 trillion municipal securities market, MSRB plays a vital role for municipal securities across the country. We appreciate the opportunity to submit comments on your agency's Strategic Goals and Priorities. As your notice indicates:

The Municipal Securities Rulemaking Board (MSRB) today published a request for input notice on its strategic goals and priorities. Every three to five years, the MSRB engages in a strategic planning exercise to reassess the long-term direction of the organization responsible for safeguarding the integrity of the nearly $4 trillion municipal securities market. The MSRB invites stakeholders to share their perspectives on how effectively the MSRB is fulfilling its Congressional mandate to develop rules and information systems that support a fair and efficient municipal market and its role as the industry's central repository for data.

All of the comments in this letter are based on the #2 and #3 elements of the mission of the MSRB “to protect investors, state and local government issuers, other municipal entities and the public interest by promoting a fair and efficient municipal market through:

1. The establishment of rules for dealers and municipal advisors,
2. The collection and dissemination of market information, and
3. Outreach and education.”

We believe that #2 and #3 items above are relevant to the implication of climate risks for municipal bond advisors and other market players.

Question 1. What are the important trends or developments you have your eyes on in the municipal market in the coming years?

Answer 1. MSRB is coordinating many elements of the municipal market extremely well and providing vital information to the municipal securities marketplace. We appreciate the strong and thoughtful leadership from MSRB and the many important functions you and your colleagues are providing. However, one vital area where we believe that MSRB can take a much more proactive role is examining the significant impact and risks climate change is having on our country generally and the cities and towns, their bondholders and other market participants.

Climate change is a systemic risk across all sectors of our economy. Unless we take significant and dramatic steps to change our capital markets, climate change will lead to serious negative consequences for the broader economy. As much as the broader financial markets are at risk, our country’s cities, towns, school districts, water and sewer districts, counties and other public entities are even more exposed to physical risks. Unlike corporations and individuals, they cannot physically move. By definition, they are limited by their physical boundaries. They are more exposed to the range of physical risks including, but not limited to fires, floods, cyclones, hurricanes, droughts and many other natural disasters. These physical risks have the potential to cause tens of millions of individuals across the United States to become “climate migrants", unable to live, attend schools, and/or work in their current communities. We believe this market information is critical to protect investors and other market participants.

A range of recent research provides the MSRB with crucial analytical resources as it considers this critical issue and its impact on the municipal market.

1. Ceres reports and analysis:
    a. June 2020 report: *Addressing Climate as a Systemic Risk: A call to action for U.S. financial regulators* outlines why and how U.S. financial regulators

who are responsible for the safety and security of the U.S. economy must recognize systemic climate risks and take immediate action.

b. November 2019 case study *Analysis of Credit Rating Agency Integration of Water Supply Risks In Ratings of U.S. Municipal Drinking Water Utilities* concludes:
"Over the 2008 to 2018 period, credit rating agencies increasingly mentioned environmental factors such as water supply risk and drought in their ratings criteria for the municipal water sector. However, the results of the study also indicate that other considerations contributing to sustainable water systems could be more explicit in credit rating methodologies, such as consideration of how water utilities are mitigating long-term impacts of climate change, addressing environmental impacts of water supply capacity expansion, and employing alternatives to traditional water supply (e.g., water reuse, and groundwater recharge). These considerations have yet to be explicitly mentioned and included in credit rating agency rating methodologies. Specifically, the notable lack of mention of climate change as a negative credit rating factor in any downgrades or negative watches indicates a relatively short-term time horizon considered by the credit rating agencies in their ratings…" (P.49)

The MSRB can play a vital role in improving access to data through climate disclosure requirements. Under current rules credit rating agencies lack the requisite data and disclosure to make these judgements.

c. This October 2018 column by our Vice President of Innovation & Evaluation and founder of Ceres's Food and Water Programs: *How climate change threatens to leave water bonds high and dry* highlights the risk of water, climate and municipal bonds.

2. This October 2019 White Paper, *Climate Change Disclosure in Municipal Offerings* by Municipal Securities Regulation and Enforcement counsels at Ballard Spahr LLP Public Finance practice recognized climate change as a risk to municipal clients and recommended examples of specific actions to consider to disclose, assess and reduce risk.

"Climate change is among the hottest current discussion topics in municipal securities disclosure. Recently, regulators in the Office of Municipal Securities of the Securities and Exchange Commission (SEC) have repeatedly and publicly expressed concerns about the adequacy of municipal offering disclosures relating to climate change.[1] This should not be surprising, given the prevalence,

[1] See statements by Rebecca Olsen, Director, Office of Municipal Securities, Securities and Exchange Commission, and other speakers, made at SEC Municipal Securities Conference: The Road Ahead Municipal Securities Disclosure In An Evolving Market, December 6, 2018.

profile, and significant expense of increasingly frequent major storms—not to mention requirements for corporate registrants to include line-item disclosures on this topic in their SEC filings. There is widespread inconsistency and a lack of urgency in obligated parties' approaches to climate change risk and adaptation disclosure. We have prepared a white paper to help clients analyze applicable climate change risks and evaluate how best to disclose such risks and their approaches to adaptation to mitigate the same."

The authors recommend that:

"[p]roper disclosure should provide specific descriptions of (1) known impacts and identified risks of climate change relating to the obligated party's own facts and circumstances and (2) specific adaptation strategies planned or undertaken to manage the same. Such disclosures would provide investors with available information to formulate a risk profile and assess the extent to which disclosed adaptation strategies would actually address the perceived risks. Disclosures on risks usually take two complementary forms: (1) risk matters/investment considerations and (2) management discussion of mitigation strategies to reduce those risks. These are two different types of disclosures, but issuers and underwriters should consider them in tandem to fully convey to prospective investors the likelihood and potential magnitude of the risks, as well as the nature and efficacy of the responses undertaken by an issuer to address the perceived risks. Investors will want to assess the adequacy (and reasonableness) of the disclosure for the level of risk and the nature and quality of the management capabilities and efforts of the issuer."

To support client efforts on disclosure, the paper provides specific examples of "effective" municipal disclosures on climate risk, adaptation and resiliency related to floods, drought, wildfires, rising sea levels, and coastal inundation. They also provide municipal clients with an example of disclosure relating to potential derivative risk from climate change adaptation legislation.

3. April 2019 report by BlackRock, the world's largest investor prepared this analysis, *Getting physical: assessing climate risks*. Key findings:
    - **"We show how physical climate risks vary greatly by region, drawing on the latest granular climate modeling and big data techniques.** We focus on three sectors with long-dated assets that can be located with precision: U.S. municipal bonds, commercial mortgage-backed securities (CMBS) and electric utilities.
    - **Extreme weather events pose growing risks for the creditworthiness of state and local issuers in the $3.8 trillion U.S. municipal bond**

https://www.sec.gov/spotlight/municipalsecurities/municipal-securities-conference-120618-transcript.pdf

market. We translate physical climate changes into implications for local GDP — and show a rising share of muni bond issuance over time will likely come from regions facing economic losses from climate change and events linked to it.

- **Hurricane-force winds and flooding are key risks to commercial real estate.** Our analysis of recent hurricanes hitting Houston and Miami finds that roughly 80% of commercial properties tied to affected CMBS loans lay outside official flood zones — meaning they may lack insurance coverage. This makes it critical to analyze climate-related risks on a local level.
- **Aging infrastructure leaves the U.S. electric utility sector exposed to climate shocks such as hurricanes and wildfires.** We assess the exposure to climate risk of 269 publicly listed U.S. utilities based on the physical location of their plants, property and equipment. Conclusion: The risks are underpriced."

4. May 2018 report from Four Twenty Seven, a climate data and risk analytics firm majority-owned by Moody's, *Assessing Exposure to Climate Change in U.S. Munis*, found:
   - *Rating agencies are increasingly considering climate change and previous extreme weather events as part of their evaluation of U.S. cities and counties.* ***These evaluations could be better informed by incorporating forward-looking, comparable data on the climate risks that impact these municipalities****….*
   - *Major hazards from climate change include cyclones, sea level rise, extreme precipitation, heat stress and water stress.*
   - ***Findings show climate change will pose challenges to several economically important U.S. municipalities, especially those that are both highly exposed and financially vulnerable.*** *These cases most often occur along the Atlantic and Gulf coasts and inland areas that rely upon a concentrated set of sectors for revenue and employment.*

(Emphasis added.)

Climate related events have negative implications for the property tax base that municipalities rely on for debt repayment. Climate change risks need to be transparently communicated to potential investors. This is fundamental to MSRB's role in promoting an efficient municipal debt market.

A January 2020 report by McKinsey Global Institute, *Climate risk and response: Physical hazards and socioeconomic impacts* assesses the socioeconomic risk from "acute" hazards, which are one-off events like floods or hurricanes, as well as from "chronic" hazards, which are long-term shifts in climate parameters like temperature. They look at two periods: between now and 2030 and from 2030 to 2050.[2]

[2] See further information in Exhibit A

As shown in the report cited above, there are important and growing risks from climate change. At the same time, there is a precedent for U.S. financial regulators and lawmakers to incorporate climate disclosure into regulatory frameworks. We believe this is in keeping with MSRB's role as an important regulator as well. Please note these examples:

- **The Federal Reserve System took steps to** address climate change as a systemic risk in November 2020:
    - It announced it has formally joined the Network for Greening the Financial System as a full member,
    - Chairman Powell made a formal statement on the importance of climate risk in financial regulations.
    - The Board of Governors of the Federal Reserve recognized the climate crisis as a key risk to U.S. financial stability in the Financial Stability Report.
- **Commodity Futures Trading Commission's Subcommittee on Climate-Related Market Risk of the Market Risk Advisory Committee** produced a landmark report *Managing Climate Risk In The U.S. Financial System*. This report will be specifically addressed later in this letter.
- The **U.S. House of Representatives** and the **U.S. Senate** climate committees made important statements on the role of financial regulators.
- **President-elect Biden** launched a Climate Plan which states, *"Biden's Day One Unprecedented Executive Actions to Drive Historic Progress . . . Requiring public companies to disclose climate risks and the greenhouse gas emissions in their operations and supply chains."*

With the above research and momentum in the regulatory and legislative efforts in mind, the MSRB has a unique opportunity to integrate, complement and support these efforts. While we understand that MSRB does not supervise public companies, we believe that the municipal marketplace should not disclose less than the companies located in their communities do. We do not believe that the investors, agents, brokers, rating agencies and, ultimately all municipal taxpayers, are less at risk than companies, and we believe that information related to municipal risks from climate change are equally important to them. As we note below, they would benefit from consistent mandatory climate disclosure. The MSRB is uniquely placed to respond to this critical need to protect the financial and socio economic interests of local residents, communities and other stakeholders.

Question 2. How would you assess the effectiveness of the MSRB at advancing its mission? What are we doing well? What should we improve upon?

Answer 2. Ceres strongly encourages the MSRB to join with other regulators and others and take these immediate steps:

- Declare that climate is a systemic risk to the municipal bond market (similar to the work of the Federal Reserve Bank, the CFTC subcommittee, several senior officials at the SEC and many state financial regulatory agencies).
- Establish a task force of internal staff and external individuals to develop a detailed plan to address the risks of climate change to the municipal marketplace and institute a multifaceted plan to address this risk.
- Prepare Annual Report(s) on climate risks for the municipal bond marketplace, including an analysis of data from EMMA and the actions taken and trainings offered.
- Develop a climate disclosure pilot initiative while the broader rules are being resolved.

As noted earlier, the U.S. Commodity Futures Trading Commission's Subcommittee on Climate Risks addressed many topics including municipal securities regulators. On page 101, their three recommendations regarding municipal securities are clearly identified. Ceres' CEO and president, Mindy Lubber, served as a member of this subcommittee and we strongly support these recommendations:

> *Recommendation 7.10: Municipal securities regulators should provide improved tools on the EMMA website to search for climate-related disclosure in municipal bond filings, similar to that provided for publicly traded companies, to allow better assessments of potential climate risk exposure in such assets and how they are being addressed.*
>
> *Recommendation 7.11: Municipal securities regulators and the federal financial market regulator overseeing them should examine the quality of climate-related disclosures in municipal bonds' official statements and continuing disclosures, and whether the disclosure provided is adequate for market participants to assess any underlying climate risk exposure. If disclosure is found to be deficient, they should issue a public statement calling on key stakeholders to improve disclosure, including municipalities, municipal advisers, and banks.*
>
> *Recommendation 7.12: Municipal securities regulators and federal financial market and prudential regulators should study how risks facing municipalities differ from—and could in some cases be more impactful than—risks facing issuers and explore options to enhance disclosure on these issues. Some municipalities already disclose information, as part of their bond issuances, about floods, storms, dam safety, droughts, wildfires, sea level rise, and risk mitigation efforts, and further study could demonstrate that such disclosure should be enhanced.*

Question 3. As the MSRB modernizes its rule book, how should we improve the rulemaking process and ensure guidance remains relevant to today's markets?

Answer 3. MSRB should examine climate taxonomy being used by various regulatory agencies around the world, industry groups and voluntary standard setters in the U.S. to determine what type of taxonomy is most appropriate for use by municipal issuers.

There are voluntary disclosure systems that can be useful in this analysis. This could include Task Force on Climate-related Financial Disclosures, Global Reporting Initiative, Climate Disclosure Standards Board, the Sustainability Accounting Standards Board (SASB) and others. SASB has built an ESG draft XBRL taxonomy covering 77 industries, many of which have municipal corollaries, including Electric, Gas and Water Utilities, Rail Transportation, and Health Care Delivery. SASB blog

Question 4. How can modernization of EMMA and related technology systems best support users? What gaps should be addressed to enhance market transparency?

Answer 4. EMMA and related technology systems are not meeting the need of municipal market participants to understand and evaluate the risks climate change poses to the municipal securities marketplace.

One set of concerns relates to the MSRB's current technological standard disclosure standard of PDF documents is outdated technology and a hindrance to data analytics and market efficiency. Many securities regulators, including the SEC, have addressed this challenge through adoption of data standards and taxonomies that are open source and render disclosures machine-readable, fully searchable, and exportable.

This lack of transparency is increasing the financial and societal risks posed by climate change. This was well outlined in a September 2020 Brookings Institute report, *Flying Blind What Do Investors Really Know About Climate Change Risks in the U.S. Equity and Municipal Debt Markets*.

Based on an analysis of filings from 3,000 of the largest U.S. publicly traded firms over the last 12 years and samplings of official statements from all U.S. municipal bonds, the report outlines the limitations of climate disclosure overall in the financial marketplace. However, it singles out the municipal markets and finds that:

> *In municipal finance, disclosure of physical risks is even weaker, although many municipalities are exposed to flood, fire, heat stress, and other perils that could destroy infrastructure and undermine the tax and income bases essential to repayment of long duration bonds. Looking at large samples of the Official Statements released with new municipal debt issuances, we find no relationship*

between objective measures of which municipalities are most exposed to climate impacts and what they disclose to the markets.

In our sample of municipal bond Official Statements, 10.5 percent of bonds tied to specific streams of revenue refer to climate risks, but only 3.8 percent of general obligation bonds do.

Disclosure by issuers of municipal debt would be improved by building national databases of critical infrastructure and exposure to climate-related perils. Regulators in states most vulnerable, such as Florida and California, could take the lead in experimentation. National regulators (FASB, PCAOB, the Fed) should promote best practices and emphasize fiduciary responsibilities.

Their report on page 12 continues,

Turning now to municipal finance, the materiality standards outlined above to guide disclosure are similar, but the practice of disclosure is much worse. While smaller than the corporate equity market, municipal debt—with a valuation of roughly $3.9 trillion (MSRB, 2019)—is incredibly important to some individual investors and mutual funds

On page 13 the report continues,

On the municipal bond side, there is no publicly available equivalent to the Ceres keyword search. All municipal bonds are available on a centralized site ("EMMA," maintained by the Municipal Standards Rulemaking Board [MSRB]) but they must be pulled one at a time with no search index pre-processing. Worse, there is no widely agreed-upon method for identifying which municipalities are at risk. (That lack of agreement is the root of a common refrain in the industry that even where concerns about climate change may exist, it is not possible to quantify them. We will show that is incorrect.) With large systematic data sets hard to obtain and methods for assessing risk in flux (at best), much of the discussion about how climate impacts affect municipal finance has been anecdotal yet illuminating. Some of the most at-risk municipalities in the country—New Orleans, Los Angeles, Charleston, SC, and Mobile, AL, among them— do not mention the term "climate change" once in their most recent bond offerings.

There is some evidence that municipalities simply don't pay attention to climate change when it comes to their financial offerings even when they are focused on dangers of climate in other areas of policy.

Data standards are lacking. We recommend that MSRB adopt technologies that enhance the ability to tag disclosures and tag data, so that investors can easily find information that is currently locked up in thousands of opaque PDF documents on

EMMA. Securities regulators already require corporate filings with tagged data, making access to data vastly more timely, accessible, and accurate, whereas municipal data is siloed in PDF documents and not presented using a standard data model.

While this lack of information is critical for all municipal bond issuers, it has a special significance for urban and underserved communities. Communities with higher concentration of families of color face greater risk of environmental dangers in their neighborhood. This can impact their lives, their communities, and ultimately the bond holders of that municipal debt. While the connections between racism and environmental dangers have been documented in countless articles, books and documentaries, Harriet A. Washington's 2019 book is especially impactful. In A Terrible Thing to Waste: Environmental Racism and its Assault on the American Mind she highlights the range of inequalities from air pollution, lack of transportation, pathogens, increased levels of industrial production, chemicals and pollution, food desserts, increased heavy metals and decreased parks and trails. All of these continue to highlight the inequities across our society and lead to greater individual inequities and community instability. Increased community instability can lead to greater risks for municipal bondholders as well.

Question 5. In what ways should the MSRB deliver on the promise of cloud-based computing to improve the availability of data for enabling market research and analysis?

Question 6. What are the most pressing knowledge and information gaps in the municipal market? How should the MSRB focus its educational efforts to provide value and impact for today's markets?

Answer 6. We commend MSRB for the professional development course you offer. Your platform MuniEdPro: Municipal Market Education for Professionals is a well regarded online platform. However, in our review of your current **MuniEdPro Course Catalogue,** it is not clear there are any courses on the risk of climate change. We believe the MSRB should offer courses on different types of risks associated with climate change. There is extensive information available about the range of risks and the suite of potential responses and actions underway. There are also various organizations, including Ceres, that could be helpful in this effort.

The Commodity Futures Trading Commission's subcommittee report, noted earlier, on pages 94-95 outlines some of the shortcomings, noted in Exhibit B.

Conclusion

You have indicated, in a recent email, that your "focus as CEO will be to advance the core mission of the MSRB by modernizing our rules and technology and by leveraging data analytics to deliver greater value to the industry that we serve." You further indicated you want "to update the rules, technology and data". Addressing climate risks is a way of achieving these goals. .

Here is a summary of Ceres' recommendations, including the CFTC recommendations noted above.

1. Declare that climate is a systemic risk to the municipal bond market (similar to the work of the Federal Reserve Bank, the CFTC subcommittee, several senior officials at the SEC and many state financial regulatory agencies).
2. Establish a task force of internal staff and external individuals to develop a detailed plan to address the risks of climate change to the municipal marketplace and institute a multifaceted plan to address this risk.
3. Prepare Annual Report(s) on climate risks for the municipal bond marketplace including an analysis of data from EMMA, actions taken, and trainings offered.
4. Develop a climate disclosure pilot initiative while the broader rules are being resolved.
5. Adopt disclosure standards, including machine-readable data standards, to enhance the availability, comparability, and timeliness of climate risk data to municipal debt investors.
6. Municipal securities regulators should provide improved tools on the EMMA website to search for climate-related disclosure in municipal bond filings, similar to that provided for publicly traded companies, to allow better assessments of potential climate risk exposure in such assets and how they are being addressed.
7. Municipal securities regulators and the federal financial market regulator overseeing them should examine the quality of climate-related disclosures in municipal bonds' official statements and continuing disclosures, and determine whether or not the disclosure provided is adequate for market participants to assess any underlying climate risk exposure. If disclosure is found to be deficient, they should issue a public statement calling on key stakeholders, including municipalities, municipal advisers, and banks, to improve disclosure.
8. Municipal securities regulators and federal financial market and prudential regulators should study how risks facing municipalities differ from—and could in some cases be more impactful than—risks facing issuers and explore options to enhance disclosure on these issues.
9. MSRB should expand the current offerings on its MuniEdPro: Municipal Market Education for Professionals platform to include information on the risks of climate change to increase transparency and market efficiency in the municipal bond market.

We have no time to waste and have seen significant steps forward from policy makers, financial leaders and regulators. One of the hallmarks of your new Administration at the MRSB could be to recognize and establish policies and procedures for the municipal securities market to prepare for the growing climate risk that impacts all investors, raters, borrowers other key stakeholders in the municipal securities marketplace -- and ultimately all municipal taxpayers across the country.

Ceres stands ready to work with you and your colleagues in this effort.

Sincerely,

Steven M. Rothstein

Steven M. Rothstein
Managing Director
Ceres Accelerator for Sustainable Capital Markets
Ceres, Inc.

CC: Securities & Exchange Commissioners and key individuals

Exhibit A

The January 2020 report by McKinsey Global Institute, *Climate risk and response: Physical hazards and socioeconomic impacts*, highlights:

- "As average temperatures rise, climate science finds that acute hazards such as heat waves and floods grow in frequency and severity, and chronic hazards, such as drought and rising sea levels, intensify."
- "While the direct impact from climate change is local, it can have knock-on effects across regions and sectors, through interconnected socioeconomic and financial systems. For example, flooding in Florida could not only damage housing but also raise insurance costs, affect property values of exposed homes, and in turn reduce property tax revenues for communities. Like physical systems, many economic and financial systems have been designed in a manner that could make them vulnerable to a changing climate. For example, global production systems like supply chains or food production systems have optimized efficiency over resiliency, which makes them vulnerable to failure if critical production hubs are impacted by intensifying hazards. Insurance systems are designed so that property insurance is re-priced annually; however, homeowners often have longer term time horizons of 30 years or more on their real estate investments. As a result of this duration mismatch, home owners could be exposed to the risk of higher costs, in the form of rising premiums (which could be appropriate to reflect rising risks), or impacts on the availability of insurance. ***Similarly, debt levels in many places are also at thresholds, so knock-on effects on relatively illiquid financial instruments like municipal bonds should also be considered***." *(Emphasis added)*

Exhibit B

The Commodity Futures Trading Commission's subcommittee report, on pages 94-95 outlines some of the following shortcomings:

> *Municipal Securities The Municipal Securities Rulemaking Board (MSRB) and the Financial Industry Regulatory Authority (FINRA) oversee the municipal securities market. Rules require that underwriters in most municipal securities offerings ensure that municipal issuers make information about themselves and their securities available both at the time of the offering and on an ongoing basis. Voluntary guidelines for primary and ongoing municipal bond disclosure, such as those promulgated by the Government Finance Officers Association (GFOA) and the National Federation of Municipal Analysts (NFMA), emphasize that issuers should provide information necessary to ensure a clear understanding of their condition (NFMA, 2019; GFOA, 2020).*

Congress and the SEC oversee the MSRB, and its rules generally must be approved by the SEC before becoming effective. The MSRB is not responsible for enforcing its rules or conducting compliance examinations. The SEC, federal financial regulators, and FINRA 94 MANAGING CLIMATE RISK IN THE U.S. FINANCIAL SYSTEM share responsibility for enforcement and compliance examinations in the municipal securities market. In 2010, Congress broadened the MSRB's mandate to include protection of state and local governments and other municipal entities, and extended the jurisdiction of the MSRB to include the regulation of municipal advisers. The MSRB's Electronic Municipal Market Access (EMMA) website aims to protect investors and municipal entities in the municipal market by increasing the transparency and availability of market information, including offering documents, official statements, and continuing disclosures.

To date, municipal regulators and the bodies that oversee them have not issued guidance or rules related to climate risk disclosure for municipal bonds. Two reports have examined applicable disclosure laws and examples of municipal securities disclosure and found climate risk disclosure to be inadequate (Rhodes and Magrini, 2019; Hamilton, 2010). However, the SEC's stance appears to be evolving. At a 2018 SEC municipal securities disclosure conference, the director of the SEC's Office of Municipal Securities asked attendees how market participants were grappling with climate risk. Several panels discussed disclosure of extreme weather events and climate risks, with speakers noting increased investor demand for climate-related information (Olsen, 2018; SEC, 2018).