CSA Staff Notice 51-354
Report on Climate change-related Disclosure Project

April 5, 2018

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Introduction

Staff (**staff** or **we**) of the Canadian Securities Administrators (**CSA**) are publishing this notice to report on the findings of our project to review the disclosure by reporting issuers (**issuers**) of risks and financial impacts associated with climate change. The project included research, consultations and review of mandatory continuous disclosure (**CD**) documents, sustainability reports and other voluntary disclosures in relation to climate change-related risks, financial impacts and related governance.

Executive Summary

On March 21, 2017, the CSA announced a project to review the disclosure of risks and financial impacts to issuers associated with climate change, and the governance processes related to them (the **Project**). The objectives of the Project were:

- to assess whether current securities legislation in Canada and guidance are sufficient for issuers to determine what climate change-related disclosures they should provide,
- to better understand what climate change-related information investors need in order to make informed voting and investment decisions, and
- to see whether or not issuers are providing appropriate disclosures in this regard.

In connection with the Project, we conducted:

- research in respect of the current or proposed climate change-related regulatory disclosure requirements in selected jurisdictions outside of Canada as well as disclosure standards contained in certain voluntary frameworks related to climate change,
- a targeted review of current public disclosure practices of selected large Canadian issuers in a number of industries with respect to climate change-related information (the **Disclosure Review**),
- a voluntary and anonymous on-line survey designed to solicit feedback from a wider range of TSX-listed issuers (the **Issuer Survey**), and
- focused consultations with issuers, users and other stakeholders (the **Consultations**).

The work conducted in connection with the Project is discussed in greater detail in Part 3 of this notice.

We identified a number of key themes arising out of our work on the Project, which are discussed at length in Part 4 of this notice:

- We developed a better understanding of Canadian issuers’ current disclosure practices in relation to climate change-related information. These are discussed in section 4.1 of this notice.

- We gained insight into users'[1] and issuers' perspectives on the materiality of climate change-related risks and opportunities and the associated financial impacts. A discussion of this issue is presented in section 4.2 of this notice.

- We consulted extensively with users during the Project. We sought to understand their disclosure needs, whether those needs were being met by issuers, and their suggestions for improvement. The insights gained from our Consultations with users are discussed in section 4.3 of this notice.

- We also consulted with issuers with respect to their interactions with users of climate change-related information, as well as the challenges involved in identifying climate change-related risks and opportunities, quantifying impacts, and preparing meaningful disclosure of material information. The issuer perspectives we obtained from the Disclosure Review, the Issuer Survey and the Consultations are discussed in section 4.4 of this notice.

- Finally, section 4.5 of this notice discusses current disclosure requirements and voluntary disclosure frameworks in relation to climate change-related risks, opportunities and impacts, as well as possible future trends in their development.

Part 5 of this notice provides a brief overview of our plans for future work in this area, both in the near-term and on an ongoing basis. Briefly, we anticipate such work to include the following:

- developing guidance and educational initiatives which are useful to issuers across a wide range of industries with respect to the business risks and opportunities and potential financial impacts of climate change,

- considering new disclosure requirements regarding corporate governance in relation to business risks, including climate change-related risks, and risk oversight and management,

- monitoring the quality of issuers' disclosure and the evolution of best disclosure practices in this area, to assess whether further work needs to be done to ensure that Canadian issuers' disclosure continues to develop and improve, and whether investors require additional types of climate change-related disclosure to make investment and voting decisions, and

- monitoring developments in reporting frameworks, evolving disclosure practices and investors' need for additional types of climate change-related disclosure to make investment and voting decisions, including whether disclosure requirements in relation to Scope 1 and Scope 2 greenhouse gas (**GHG**) emissions are warranted in the future.

Appendix "A" contains a glossary of defined terms and abbreviations which appear throughout this notice.

1. Substance and Purpose

1.1 Purpose of notice

The focus on climate change-related issues in Canada and internationally has grown rapidly in recent years. Various stakeholders are seeking improved disclosure on the material risks, opportunities, financial impacts and governance processes related to climate change. There has also been a proliferation of

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[1] In this notice we define "users" to include institutional investors, investor advocates, experts, academics, credit rating agencies and analysts.

voluntary disclosure frameworks that focus on climate change-related issues, including the Final Report - Recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (**TCFD Recommendations**) in June 2017. Lastly, the regulatory environment is changing, as evidenced by the pan-Canadian framework on clean growth and climate change and the Canadian federal government's commitment under the Paris Agreement to reduce GHG emissions, including by 30 per cent below 2005 levels by 2030.

As a result of the growing interest and concern in this area, the CSA announced the Project on March 21, 2017.[2] The Project was focused on climate change-related risks and opportunities that impact an issuer and its business, as opposed to the impact an issuer has or may have on climate change. As a result, climate change-related risks and opportunities are not viewed as an industry-specific issue, but rather as a category of risks and opportunities affecting issuers across a wide range of industries.

The objectives of the Project were:

- to assess whether current securities legislation in Canada and guidance are sufficient for issuers to determine what climate change-related disclosures they should provide,
- to better understand what climate change-related information investors need in order to make informed voting and investment decisions, and
- to see whether or not issuers are providing appropriate disclosures in this regard.

This notice provides an overview of the findings of the Project and also sets out the CSA's plans for further work in this area.

1.2 Structure of notice

This notice is structured as follows:

In Part 2, we provide an overview of the current disclosure requirements under securities legislation in Canada and previously issued guidance.

In Part 3, we discuss the work that has been completed in connection with the Project.

In Part 4, we set out the key themes that we have identified from the Project.

In Part 5, we outline the proposed direction of future CSA work in this area.

2. Overview of Disclosure Requirements

Current securities legislation in Canada requires disclosure of certain climate change-related information in an issuer's regulatory filings, if such information is material. As discussed in CSA Staff Notice 51-333 *Environmental Reporting Guidance* (**SN 51-333**), which was published on October 27, 2010, a number of disclosure requirements relating to environmental matters are found in the principal rules governing CD, including National Instrument 51-102 *Continuous Disclosure Obligations* (**NI 51-102**), National Instrument 58-101 *Disclosure of Corporate Governance Practices* (**NI 58-101**), National Instrument 52-110 *Audit Committees* (**NI 52-110**) and National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* (**NI 52-109**). Furthermore, guidance on corporate governance practices is provided in National Policy 58-201 *Corporate Governance Guidelines* (**NP 58-201**).

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[2] https://www.securities-administrators.ca/aboutcsa.aspx?id=1567

The following is a brief summary of requirements pertaining to the disclosure of climate change-related risks and risk management and oversight, as well as guidance on materiality as a determining factor for whether a particular climate change-related matter requires disclosure.

This summary is primarily derived from existing guidance in SN 51-333. It is not intended to provide legal advice and is not an exhaustive overview of issuers’ disclosure obligations in relation to climate change-related information. Issuers are encouraged to review SN 51-333, and should refer to applicable securities legislation to assess their respective climate change-related disclosure obligations.

2.1 Climate change-related risks

Item 5.2 of Form 51-102F2 *Annual Information Form* (**Form 51-102F2**) requires an issuer to disclose, in its AIF, risk factors relating to it and its business that would be most likely to influence an investor’s decision to purchase the issuer’s securities. Accordingly, any climate change-related risks that are determined to be material to the issuer must be disclosed pursuant to this item. Moreover, item 1.4(g) of Form 51-102F1 *Management’s Discussion & Analysis* (**Form 51-102F1**) requires an issuer to discuss, in its MD&A, its analysis of its operations for the most recently completed financial year, including commitments, events, risks or uncertainties that it reasonably believes will materially affect its future performance.

The following chart highlights some of the potential climate change-related risks and impacts (including examples of specific financial impacts that may result from climate change-related risks), the materiality of which should be considered by an issuer:

Risks	Impact	Financial Impact
Physical		
• Changing weather patterns • Water availability and quality	• Asset damage • Health and safety • Operational disruptions • Transportation interruptions • Restriction of licenses, availability and use	• Asset write-offs • Capital expenditures • Increased costs • Reduced revenues
Regulatory		
• Current/changing regulations	• Compliance • Impact on market demand • Restriction of licenses, availability and use • Market restrictions	• Increased costs • Capital expenditures • Reduced revenues • Asset valuations • Early retirement or write-offs
Reputational		
• Employees’ and investors’ attitudes • Regulatory violations	• Reduced availability of capital • Litigation/penalties • Reduced demand for goods/services	• Asset write-offs • Increased costs • Reduced revenues

Business Model		
• Changes in demands for products/services • Renewable energy • Energy efficient products	• Lower demand • Higher costs for transition	• Lower revenues • Increased costs • Higher cost of capital/limited access to capital • Asset write-offs

2.2 Risk management and oversight

NP 58-201 and NI 52-110 establish guidelines and requirements which are intended to assist issuers in the implementation of policies and practices required for effective corporate governance and oversight over their business, including the identification and management of business risks. SN 51-333 discusses two sets of disclosure requirements that provide insight into how issuers are managing material risks: (i) disclosure of environmental policies fundamental to operations, and (ii) disclosure of board mandate and committees. SN 51-333 also highlights the three levels of oversight that issuers' disclosure is subject to.

i) Environmental policies fundamental to operations

Item 5.1(4) of Form 51-102F2 requires issuers to describe environmental policies that are fundamental to their operations and the steps taken to implement them. This requirement is an opportunity for issuers to establish appropriate policies to manage material environmental risks and is also useful to investors in providing insight into how such risks are managed.

The term "policy" should be read broadly and may include policies for climate-change related issues, sustainable development or the reduction of GHG emissions. When discussing its environmental policies, an issuer should evaluate and describe the impact that such policies may have on its operations. This discussion may include a quantification of the costs associated with these policies, where such information is reasonably available and would provide meaningful information to investors.

ii) Board mandate and committees

Section 3.4 of NP 58-201 states that an issuer's board should adopt a written mandate that explicitly acknowledges responsibility for, among other things: (i) adopting a strategic process and approving, at least annually, a strategic plan that takes into account the opportunities and risks of the business; and (ii) the identification of the principal risks of the issuer's business and ensuring the implementation of appropriate systems to manage these risks.

Pursuant to Form 58-101F1 *Corporate Governance Disclosure*, non-venture issuers are required to disclose the text of their board mandate, or if the board does not have a written mandate, to explain how they delineate roles and responsibilities. In addition, both venture and non-venture issuers are required to identify and describe the function of any standing committees (other than audit, compensation and nominating committees), which would include environmental or other committees responsible for managing climate change-related issues, and to disclose the text of the audit committee's charter. For some issuers, the audit committee may have responsibility for, among other things, environmental risk management.

Such disclosure should provide insight into:

- the development and periodic review of the issuer's risk profile,
- the integration of risk oversight and management into the issuer's strategic plan,

- the identification of significant elements of risk management, including policies and procedures to manage risk, and
- the board's assessment of the effectiveness of risk management policies and procedures, where applicable.

iii) Oversight of disclosure

Oversight systems, processes and controls are necessary to ensure that an issuer provides a meaningful discussion of material climate change-related matters in their CD documents. NI 52-110 requires an issuer's audit committee to review its financial statements and MD&A, and NI 51-102 requires the approval of same by the board of directors, although the approval of interim filings may be delegated to the audit committee. NI 52-109 requires an issuer's Chief Executive Officer and Chief Financial Officer to certify certain matters in relation to the financial statements, MD&A and, if applicable, AIF.

In fulfilling their oversight functions, audit committees, boards and certifying officers should consider, among other things, the assessment management has made regarding the materiality of climate change-related matters, and whether the disclosure made in securities regulatory filings is consistent with this assessment.

2.3 Controls and procedures

To support the review, approval and certification process discussed above, an issuer must have adequate controls and procedures in place for its disclosure of material information, including climate change-related information. The audit committee and certifying officers have key responsibilities in establishing these controls and procedures. In particular, the audit committee has responsibilities under NI 52-110 in respect of procedures in place for the review of the issuer's public disclosure of financial information extracted or derived from financial statements.

2.4 Materiality

As a general rule, materiality is the determining factor in considering whether information is required to be disclosed.[3] As provided in Form 51-102F1 and Form 51-102F2, information is likely material where a reasonable investor's decision whether or not to buy, sell or hold securities of the issuer would likely be influenced or changed if the information was omitted or misstated. Section 2.1 of SN 51-333 provides a number of guiding principles for issuers seeking to make materiality determinations, which can be briefly summarized as follows:

- there is no bright line test for materiality,
- materiality must be considered in light of all the facts available,
- the determination of materiality is a dynamic process that depends on the prevailing relevant conditions at the time of reporting,
- the time horizon of a known trend, demand, commitment, event or uncertainty may be relevant to an assessment of materiality, and

[3] We note, however, that certain disclosure requirements in Canada, including disclosure relating to corporate governance, are not subject to a materiality standard.

- where doubt exists as to the materiality of particular information, issuers are encouraged to disclose such information.

Among the various risks and opportunities considered by issuers, those related to climate change should also be assessed to determine whether they meet the materiality threshold as risks and opportunities must be disclosed in issuers' regulatory filings.

3. Work Completed

The work we have completed in connection with the Project includes:

- research in respect of the current or proposed climate change-related regulatory disclosure requirements in selected jurisdictions outside of Canada as well as disclosure standards contained in certain voluntary frameworks related to climate change,
- the Disclosure Review,
- the Issuer Survey, and
- the Consultations.

We were able to obtain valuable feedback through the Disclosure Review, Issuer Survey and Consultations. Key findings from the above-noted work are discussed in Part 4 of this notice.

3.1 Review of international disclosure requirements and voluntary frameworks

We reviewed climate change-related disclosure requirements in the securities laws of the United States, the United Kingdom and Australia. We also conducted a review and analysis in respect of the following four voluntary frameworks for sustainability reports or the voluntary disclosure of climate change-related risks and financial impacts:

- the TCFD Recommendations,
- the International Integrated Reporting Framework published by the International Integrated Reporting Council (the **IR Framework**)[4],
- the Global Standards for Sustainability Reporting published by the Global Reporting Initiative (the **GRI Framework**), and
- the Climate Risk Technical Bulletin (the **SASB Framework**) published by the Sustainability Accounting Standards Board (**SASB**).

Our research focused on the identification of areas in which current securities disclosure requirements in Canada are consistent with the requirements of these other jurisdictions and frameworks, as well as areas in which these requirements differ.

[4] For clarity, the IR Framework is a principles-based reporting framework that is not solely limited to sustainability reporting.

3.2 Disclosure Review

The following table outlines the attributes of the Disclosure Review, including the criteria for the sample of issuers selected, the documents reviewed and the topics and questions that were considered. The purpose of the Disclosure Review was to assess the extent to which material climate change-related risks, financial impacts and related governance disclosure is being provided in CD filings and voluntary reports.

In addition, we reviewed voluntary disclosure provided by the selected issuers to gain a better understanding of additional climate change-related disclosure being provided, and to assess whether potentially material information had been omitted from issuers' CD filings.

Attributes of the Disclosure Review	
Who was selected?	• 78 issuers from the S&P/TSX Composite Index. • Wide range of industries, including: finance and insurance, communications, consumer products, industrial, investment companies, mining, oil and gas, oil and gas services, pipelines, real estate, technology, transportation, environmental services and utilities. • Market Capitalization ranged from $650 million to nearly $140 billion, with the largest proportion of issuers (38%) within the $1 billion to $5 billion range.
Which documents were reviewed?	• CD filings: o financial statements, MD&As, AIFs, and information circulars. • Voluntary disclosures: o issuers' websites, sustainability reports and other voluntary reports/presentations, public surveys, etc.
What types of topics/questions were considered?	• Nature and extent of climate change-related disclosure: o What types of information did issuers include in CD filings? o What information did issuers include in voluntary disclosure? o Did issuers disclose their governance and risk management processes related to climate change-related risks and impacts? • Current disclosure practices: o We reviewed issuers' climate change-related disclosure in relation to existing disclosure requirements under securities legislation in Canada. o We reviewed issuers' voluntary disclosure for potentially material climate change-related information which was omitted from their CD filings.
Comment Letters	• Two jurisdictions issued comment letters to issuers seeking clarification on specific issues in relation to the topics and

	questions listed above.

3.3 Stakeholder outreach

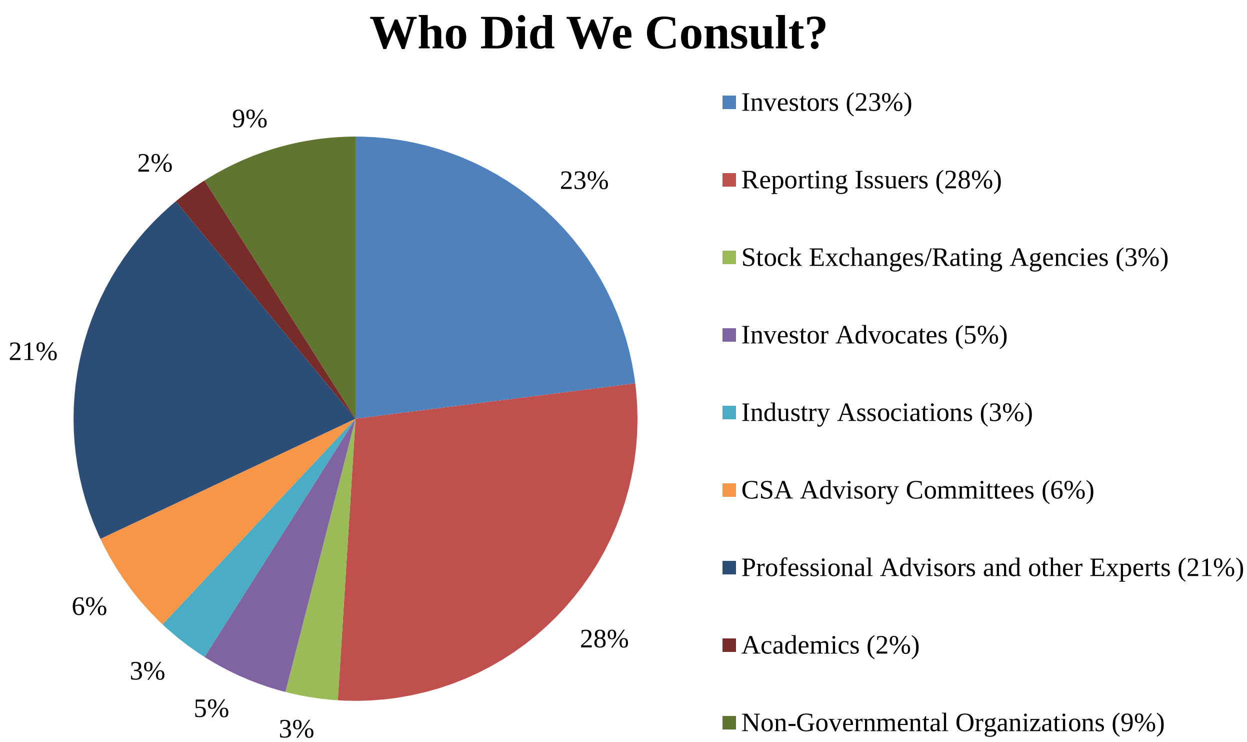
i) Issuer Survey

All TSX-listed issuers were invited to complete the Issuer Survey. The Issuer Survey was an anonymous survey intended to solicit candid responses from a broad population of issuers. We received responses from 97 TSX-listed issuers representing a cross-section of sizes and industries. The following table highlights the key features of the Issuer Survey:

Key Features of the Issuer Survey	
Market Capitalization	• Ranged from under $25 million to over $1 billion. • Largest group of respondents (45%) was over $1 billion.
Industry	• 13 industries (plus "other") represented. • Top four industries by number of respondents: mining (24%), oil and gas (19%), and finance/insurance and industrial (each, 8%).
Topics Covered	• Issuers' current climate change-related disclosure practices. • Costs and challenges associated with climate change-related disclosure. • Governance and risk oversight in respect of climate change-related risks. • Investor demand for climate change-related disclosure.

ii) Consultations

CSA staff held 50 Consultations, comprising both one-on-one and focus group consultations with a wide range of stakeholders, a significant portion being issuers and users of disclosure, as illustrated below:



The Consultations were intended to allow staff to obtain information from stakeholders on a wide range of topics such as the following:

Topics Addressed in the Consultations	
Users	• We discussed users' current and future demands for climate change-related disclosure. • We sought users' views with respect to the adequacy of current climate change-related disclosure for their investment and voting decisions. • Users provided insight into which types of climate change-related disclosure are material to them and decision-useful and which are not. • We solicited users' views regarding the adequacy of current Canadian disclosure requirements and guidance in relation to the disclosure of climate change-related risks and impacts.
Issuers	• We canvassed issuers regarding current practices in relation to the voluntary and involuntary disclosure of climate change-related information in Canada and elsewhere. • Issuers identified challenges they had encountered in seeking to satisfy user demand for climate change-related disclosure. • Issuers provided insight into their governance and risk management processes in relation to climate change-related risks, and how they go about assessing the materiality of climate change-related information. • We discussed the current and anticipated costs and other regulatory burdens to issuers associated with the preparation and disclosure of climate change-

	related information.
Others	• We sought the views of legal, accounting and engineering advisors with respect to the collection and presentation of climate change-related disclosure, including the disclosure of scenario analysis and other forward-looking information. • We gained insight into current trends in relation to the disclosure of climate change-related risks and impacts from academics, consultants and others with expertise in this area.

4. Key Themes

Based on the work we have completed in connection with the Project, we have identified a number of key themes, which are discussed in more detail below.

4.1 Current disclosure practices

The following is a summary of our findings regarding the current disclosure practices of issuers with respect to climate change-related information:

Key Points
• Our Disclosure Review, which examined CD filings against existing securities disclosure requirements in Canada, did not result in any re-filings, restatements or other corrective actions being requested; however, we noted variations in disclosure practices and room for improvement in the disclosure of several issuers. • 56% of the issuers whose disclosure we reviewed provided specific climate change-related disclosure in their MD&A and/or AIF, with the remaining issuers either providing boilerplate disclosure, or no disclosure at all. 28% of respondents to the Issuer Survey indicated that they provided climate-change related disclosure in their regulatory filings. • More issuers provided climate change-related disclosure in their voluntary reports, with 85% of the issuers reviewed in our Disclosure Review and 32% of the respondents to the Issuer Survey providing this information in voluntary reports. • The climate change-related risk most discussed was regulatory risk. Few of the issuers we reviewed disclosed their governance and risk management practices respecting climate change. • To the extent that climate change-related risk was not provided in CD documents, the principal reason given by issuers was that such disclosure was not material from a Canadian securities law perspective. • The prevalence of climate change-related disclosure increased with the size of the issuer. • We found that climate change-related disclosure was also more common among issuers in certain industries, notably those in the oil and gas industry. Some issuers in other industries provided significantly less disclosure in respect of the implications of climate change for their business and operations, or no disclosure at all. • Of the various voluntary disclosure frameworks used, most issuers applied the GRI Framework. The main reason cited for choosing a particular framework was that it is commonly used in the issuer's industry.

i) Climate change-related disclosure in regulatory filings and voluntary reports

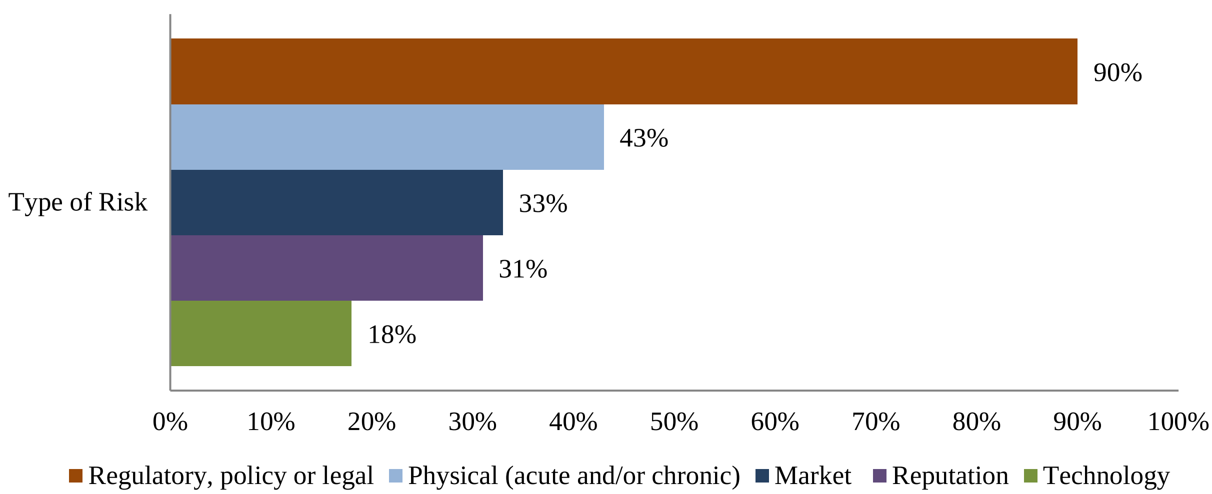
Our Disclosure Review, which examined CD filings against existing securities disclosure requirements in Canada, did not result in any re-filings, restatements or other corrective actions being requested; however, we noted variations in disclosure practices and room for improvement in the disclosure of several issuers.

Based on our Disclosure Review, the majority of issuers reviewed provided climate change-related disclosure in their regulatory filings. Specifically, 56% provided specific disclosure in their MD&A and/or their AIF, 22% provided boilerplate disclosure and 22% provided no disclosure at all. Climate change-related information disclosed in issuers' regulatory filings was lower for Issuer Survey respondents, as 28% indicated that they currently disclose climate change-related information in their regulatory filings.

Voluntary reporting of climate change-related information was higher, as 85% of the issuers reviewed in our Disclosure Review provided voluntary climate change-related disclosure. Similarly, respondents to the Issuer Survey also indicated a higher percentage of voluntary climate change-related information relative to their regulatory filings, with 32% of respondents indicating that they provide this information in voluntary filings. Specifically, 61% of issuers reviewed identified climate change-related risks in their voluntary disclosures; 90% of those issuers also disclosed how they were managing those risks.

ii) Types of climate change-related information disclosed

The following table outlines the types of climate change-related risk disclosure provided by Issuers in the Disclosure Review:



As indicated in the table above, the most prevalent risk noted was regulatory risk. The findings from our Disclosure Review were generally consistent with the results of the Issuer Survey, which identified regulatory risk as being the most commonly disclosed climate-change related risk (64%).

We also noted that the extent of disclosure was most significant in respect of regulatory risk. For example, issuers were more likely to discuss the historical or potential impact of regulatory change and policies and/or strategies to address this risk. This is consistent with the feedback from our Consultations, in which issuers advised that they considered this risk to be the most immediate (in terms of current impact) and tangible (as to actual costs and rates that issuers are incurring or expect to occur).

Based on our Disclosure Review, for those climate change-related risks that were discussed in issuers' AIFs, 41% of the risk disclosures did not address the financial impact of those risks, 34% disclosed that the impact cannot be determined at this time, 18% disclosed that the impact is not expected to be material and 7% provided specific disclosure regarding the financial impact.

Relatively few issuers explicitly disclosed climate change-related considerations in their governance disclosure. Based on our Consultations and the Issuer Survey, we understand that this responsibility generally falls under an issuer's health, safety and environment (or comparable) committee or other risk committee; however, this information was seldom articulated in regulatory filings. We noted through the Disclosure Review that a majority of issuers (55%) disclosed the existence of a board committee charged with responsibility for environmental or sustainability-related matters.

iii) Reasons for non-disclosure of climate change-related risks

Based on the results of the Disclosure Review, two jurisdictions issued comment letters to some issuers to gain insight into their reasons for not disclosing certain climate change-related risks.

The key takeaways noted from our inquiries were as follows:

- In many cases, the issuers confirmed that they had considered climate change-related risks and concluded that they did not rise to the level of materiality from a securities law perspective.

- With respect to physical climate change-related risks, some issuers concluded that based on a consideration of both quantitative and qualitative factors (the relevant conditions at the time of reporting, the probability of an event or trend occurring, and the magnitude of the impact on their business) such risks are not material. In some other responses, issuers indicated that they had addressed climate change-related risks through disclosure of broader physical or environmental risks in their CD documents. They adopted this approach because they were of the view that uncertainty exists with respect to the specific effects of climate change which prevents a reliable assessment of how, or to what extent, climate change, considered in isolation, would affect previously identified physical risks affecting the issuer's operations.

- When asked about the quantification of regulatory climate change-related risks, some issuers indicated that the current impact of existing regulations does not rise to the level of materiality from a securities law perspective. Further, they viewed changes in policy and regulatory frameworks to be uncertain, which presented challenges for issuers to predict the financial impact of these risks.

Similarly, for the 58% of respondents to the Issuer Survey that indicated they do not disclose climate change-related information, the top three reasons cited were:

1) their conclusion that climate change-related risks are not material to the issuer at this time,
2) the lack of a common framework for measuring the impacts of climate change at this time, and
3) a lack of interest on the part of stakeholders.

The materiality of climate change-related risks and opportunities was a central and reoccurring theme that arose in our Project. This is discussed further in section 4.2 of this notice.

iv) Climate change-related disclosure by issuer size and industry

In general, we found that the breadth and quality of disclosure increased as an issuer's market capitalization increased. We also found that as market capitalization increased, so did the proportion of issuers that provided climate change-related disclosure. For example, while 58% of the Issuer Survey participants did not disclose any climate change-related information in their regulatory or voluntary disclosures, issuers with a market capitalization greater than $1 billion were more likely than not to disclose (53% reported that they disclose) versus issuers under $1 billion (of whom only 34% reported that they disclose). All of the issuers with market capitalizations greater than $25 billion, whose disclosure we reviewed as part of our Disclosure Review, provided voluntary climate change-related disclosure.

The results of our Disclosure Review also indicated that issuers in the oil and gas industry were generally more likely to include climate change-related disclosure in their regulatory filings compared to other industries, especially with respect to regulatory risks (e.g., relating to carbon taxes and cap and trade programs). Oil and gas was also the only industry[5] in which a majority of the respondents to the Issuer Survey indicated that they currently disclose climate change-related information.

v) Frameworks and GHG calculation methods

While we noted some issuers that disclosed their GHG emissions in their CD filings, we found that 73% of issuers in our Disclosure Review only disclosed emissions-related metrics in their voluntary disclosures. Similarly, the majority of issuers that participated in the Issuer Survey (86%) indicated that they disclose GHG emissions in their voluntary disclosure. This was the most common type of voluntary disclosure provided by those respondents to the Issuer Survey.

Based on the Disclosure Review, 41% of issuers did not reference a third-party framework for their voluntary climate change-related disclosure. Of the issuers that did reference a specific voluntary disclosure framework, 82% applied the GRI Framework, however, several other frameworks were also used. Consistent with the Disclosure Review, our Issuer Survey results indicated that the GRI Framework was the most widely used of the voluntary reporting frameworks (being used by 79% of the respondents that indicated that they provide voluntary disclosure). The main reason cited for choosing a particular framework was that it was commonly used in the issuer's industry. While issuers emphasized that "one size does not fit all," many issuers within the same industry tended to adopt the same framework.

We also noted that, based on our Disclosure Review, 74% of the issuers that provided voluntary climate change-related disclosure had responded to the CDP survey, of which 90% had made their response available to the public. A review of the publicly available CDP survey responses for issuers in the oil and gas industry, for example, showed that most issuers that disclose their GHG emissions used a combination of multiple calculation standards and guidance to determine their emissions. There did not appear to be a single, consistently-used standard, even within industries.

4.2 Materiality of climate change-related risk

Key Points

- As a general rule, information is required to be disclosed under securities laws in Canada if it is material. As such, the topic of materiality assumed a central role in our Consultations and the other work performed in connection with the Project.
- Users and issuers offered a wide range of perspectives on the materiality of climate change-related risks and opportunities.
- Most of the users consulted considered climate change-related risks to be a conventional business

[5] Where Issuer Survey results provide breakdowns or trends by industry, only the industries that had at least six respondents were included, as the other industries may not comprise a representative sample given their small size.

issue affecting issuers in a wide range of industries, and not solely a sustainability or environmental issue. In their view, the significance of these risks is not adequately reflected in the CD documents of Canadian issuers.

- Most of the issuers consulted acknowledged the materiality of some climate change-related information, such as risk factors and regulatory considerations, while noting that other climate change-related information is either not material, or is currently so uncertain or remote that its ultimate materiality and financial impact cannot be assessed or quantified at the present time.
- Certain users were of the view that issuers should be required to disclose whether they specifically considered climate change-related risks and opportunities in their materiality assessments.
- Uncertainty surrounding the timing and measurement of climate change-related risks presented a particular challenge for issuers with respect to assessing their materiality and, consequently, their inclusion in, or omission from, regulatory filings.

As a general rule, information is required to be disclosed under securities laws in Canada if it is material. Although securities laws in Canada do not impose specific requirements in relation to the disclosure of climate change-related information, the general requirement to disclose material information requires disclosure of the material climate change-related risks and impacts for an issuer's business in the same way that they require disclosure of other types of material information.

Through the Project, we received significant feedback from issuers, users and other stakeholders with respect to the materiality of climate change-related information. As discussed in section 4.1, when we questioned issuers about the omission of climate change-related information from disclosure, their principal explanation was that they only disclosed such information to the extent it had been determined to be material, and that other information was omitted because they concluded it was not material. On the other hand, most of the users consulted considered climate change-related risks to be a conventional business issue affecting issuers in a wide range of industries, and not solely a sustainability or environmental issue. In their view, the significance of these risks is not adequately reflected in the CD documents of Canadian issuers. This divergence of views on the materiality of climate change-related risks and opportunities was a central and recurring theme that arose throughout the Project.

During our Consultations, certain users emphasized the weight they placed on climate change-related risks in making investment and voting decisions. Some users indicated that when issuers do not disclose material climate change-related risks or a relevant discussion on the matter in their regulatory filings, they are often unsure as to whether the issuer has: (i) performed an informed analysis of the impacts of climate change and determined they are not material; or (ii) substantially overlooked climate change as a potential source of material risks to their business. As a result, these users were of the view that issuers should be required to disclose whether they specifically considered climate change-related risks and opportunities in their materiality assessments and if they concluded that such disclosure was not material, to provide disclosure to this effect. We note that a requirement to provide "negative assurance" of a specified risk would be a departure from current Canadian securities disclosure obligations, which only requires disclosure of material risks.

As noted above, based on the Issuer Survey, the most prevalent reason offered by issuers that do not disclose climate change-related information is that they are of the view that it is not material to them at this time. Through our Consultations, many issuers confirmed they have processes in place to identify and assess significant risks, including climate change-related risks. However, in their view, uncertainty with respect to the timing and measurement of climate change-related risks presented a particular challenge with respect to assessing their materiality and, consequently, their inclusion in or omission from regulatory filings. Further, many issuers stated that the extent of estimates and assumptions required to determine potential impacts associated with climate change-related risks can preclude them from having a reasonable basis for purposes of disclosure.

i) Uncertainty regarding the timing of climate change-related risks

Based on our Consultations, it is apparent that many issuers and users share the view that the timing of climate change-related risks and impacts presents a significant challenge for issuers in assessing materiality. Some users were of the view that issuers used a short-term outlook to identify and assess material climate change-related risks and opportunities, which resulted in a lack of climate change-related disclosure. Many users also viewed climate change-related risks as being likely to have a more imminent impact than some issuers currently acknowledge, citing recent examples of extreme weather events in Canada and abroad. We also noted that some issuers and their advisors tended to place greater emphasis upon risks which were expected to have a material impact on the issuer in the near term, as these impacts are more readily ascertainable and more easily quantified. Some issuers also advised that they emphasize more imminent risks in recognition of the priorities of their investor community, which may be focused on short-term rather than long-term considerations.

ii) Uncertainty regarding the measurement of climate change-related risks

Uncertainty associated with the measurement of climate change-related risks also impacted issuers' materiality assessments. For example, in the Disclosure Review, we found that while 43% of issuers specifically mentioned physical climate change-related risks in their regulatory filings, most issuers did not quantify the potential financial impact of those risks. Some issuers also noted that to the extent that they are able to identify specific potential physical and other effects of climate change, it was only possible to disclose the existence of the risk, but not to quantify it.

In our Disclosure Review, we also found that relatively few issuers quantified the impact of regulatory risks, although as noted in SN 51-333, Item 5.1(1)(k) of Form 51-102F2 requires an issuer to disclose the financial and operational effects of environmental protection requirements in the current financial year and the expected effect in future years. When questioned regarding the absence of quantified impact in their disclosures, the most common response issuers provided was that the current regulatory impact is generally not material at this point, and that there is too much uncertainty to reasonably estimate the potential impact of future regulations. This contrasted with the views of many users, who suggested that the impact could be measured, for example, with regard to national commitments under the Paris Agreement.

In certain instances, although issuers did not specifically refer to the term "climate change" in identifying risks, they nevertheless identified potential risks which may be influenced by climate change, such as extreme weather, natural disasters, and access to water, and discussed the implications of these risks for their business. When queried as to why these risks were not identified specifically as climate change-related risks, several issuers explained that these physical risks could occur (and had been identified as material risk factors) independent of any climate change-related impacts, and that attributing such risks to climate change to the exclusion of other factors was neither necessary, nor appropriate. In addition, some issuers noted that it is not yet possible to ascertain the incremental impact and materiality of risks specifically attributable to climate change, in isolation from other factors.

With respect to the other risk factors identified in relation to the issuer's market, reputation and regulations, several issuers noted that while many of these risks could be influenced or exacerbated by climate change, there are several other factors that also influence them, such as competition, market price fluctuations for inputs and outputs, and technological advancements. As many of these other factors posed more significant and immediate impacts, these issuers did not highlight climate change as a main contributor to such risks.

While some issuers appeared to lack familiarity with the risks and impacts of climate change, and the expertise to assess them, it must also be acknowledged that the precise impacts of climate change, and their magnitude and timing, are not yet certain and, in some instances, unlikely to be known for some time. Consequently, some issuers noted that consideration of both quantitative and qualitative factors in determining materiality must, in some cases, be based upon extensive assumptions and estimates which may limit the usefulness and reliability of the resulting disclosure. They also noted that this uncertainty presents significant challenges given their need to ensure that disclosure is verifiable and has a reasonable basis in light of the potential for liability for such disclosure.

4.3 Users' perspectives

Key Points
• Substantially all of the users we consulted were dissatisfied with the current state of climate change-related disclosure, and believe that improvements are needed. • Users consulted with were not a homogenous group and as a result, informational needs varied. • Substantially all users were also of the view that issuers in many industries will be affected by climate change-related risks, and should provide disclosure regarding their governance and oversight of such risks. • Some users suggested that the current disclosure requirements, supplemented by additional guidance and education, may be adequate to provide better disclosure of climate change-related risks, opportunities and impacts, while others maintained that new disclosure requirements should be imposed. • Users' views also differed on whether issuers should be required to disclose GHG emissions and/or scenario analyses in their regulatory filings. • Several of the users we consulted acknowledged that it may be appropriate for new disclosure requirements to apply differently to issuers based on exchange listing, size or industry.

As noted earlier, most of the users consulted considered climate change-related risks to be a conventional business issue, rather than a narrowly focused sustainability or environmental issue. We also found that substantially all users expressed general dissatisfaction with the current state of climate change-related disclosure being provided by issuers, noting that in many cases disclosure is not provided, while in other cases much of the disclosure provided is boilerplate, vague or viewed as incomplete. As a result, users were of the view that these deficiencies negatively impacted their ability to make investment and voting decisions. A number of users also found the climate change-related disclosure provided by issuers lacked clarity and consistency, which limited their ability to compare such disclosure between issuers. As a result, substantially all of the users we consulted were of the view that enhancements to improve the current state of climate change-related disclosure were needed.

We also found that the users consulted were not a homogenous group. Informational needs varied, in some cases, arising out of fiduciary duties or other obligations. For example, some investors employed long-term investment strategies and therefore required disclosure to address such needs, whereas other investors had shorter investment horizons. In other cases, users sought disclosure of GHG emissions based on commitments to measure, disclose and reduce the carbon footprint of their portfolio, whereas others noted that GHG emissions did not factor into their investment decision making. As a result, we found that while substantially all users agreed that improvements to the current state of climate change-related disclosure were needed and had generally agreed upon a number of areas of enhancements, there was also a lack of consensus in other areas, including with respect to the reporting of GHG emissions and scenario analysis.

i) Areas of consideration

Substantially all of the users consulted were of the view that climate change-related disclosure enhancements are needed. Specifically, the users consulted generally agreed that: (i) disclosure of issuers' governance and risk management of climate change-related risks are required; (ii) issuers' directors and officers should seek further education on the nature and extent of climate change-related risks; and (iii) it would be appropriate for any new disclosure requirements to apply differently to issuers of different sizes and in different industries. On the other hand, we also found that users disagreed in other areas, specifically with respect to how disclosure of climate change-related disclosure of risks, opportunities and impacts could be improved, and whether specific mandatory disclosure requirements regarding GHG emissions and scenario analysis should be imposed.

A) Governance and risk oversight

Substantially all of the users consulted agreed that issuers in many industries will be affected by climate change-related risks, and should provide disclosure regarding their governance and oversight of such risks. Many users supported the TCFD Recommendations in this regard, which recommend disclosure on: (i) the board of directors' oversight of climate change-related risks and opportunities; (ii) management's role in assessing and managing climate change-related risks and opportunities; (iii) the process used to identify and assess climate change-related risks; and (iv) how such processes are integrated into the issuer's overall risk management process. As discussed further in section 4.5, these elements of the TCFD Recommendations are not subject to an assessment of materiality.

Based on our Consultations, the primary reasons offered by users for seeking governance and risk oversight disclosure were that:

- issuers need reliable governance and risk oversight processes in order to identify material business risks, including material climate change-related risks,
- many users were not confident that issuers have reliable processes in place to identify and manage climate change-related risks,
- in the absence of this disclosure, many users questioned whether an issuer had made an informed analysis and had correctly concluded that climate change does not pose a material risk to it, or whether the issuer substantially overlooked this risk due to lack of expertise, due diligence or otherwise, and
- some larger institutional investors were hesitant to obtain this information through engagement with issuers, due to the risk of selective disclosure in violation of securities laws.

B) Further education on climate change-related risks

The users consulted strongly emphasized that issuers' directors and officers should understand the risks, opportunities and impacts associated with climate change. Users highlighted the importance of an issuer's board of directors having an appropriate level of expertise in this area in light of the risk that climate change may present to an issuer's business, and suggested that this may not currently be present. We note that, as previously discussed, feedback to the Issuer Survey also suggested that some issuers hold a narrow understanding of the nature and extent of climate change-related risks and impacts, implying that further education in this area may be necessary. As a result, users were of the view that issuers' boards of directors and management should seek to be better informed on climate change and its implications for the issuer's business in order to properly strategize, manage and oversee its associated risks.

Users also noted that further education would assist issuers in all industries in assessing the materiality of climate change-related risks and impacts, which could lead to improvements in their disclosure of such risks and impacts in their regulatory filings.

Regarding educational resources, many users indicated that guidance focused specifically on climate change would be beneficial to issuers across a wide range of industries and their advisors. This could include, for example, a "refresh" of the guidance in SN 51-333, which currently includes guidance on disclosure of environmental matters more broadly. We note that consideration of further guidance specifically focused on climate change is discussed under Part 5 of this notice. Many users also indicated that there are other useful resources that issuers can use to better understand how they may be impacted by climate change.

C) Tailoring reporting requirements

Most users acknowledged that if new mandatory reporting requirements are implemented, it may be appropriate for such requirements to apply differently to various subsets of issuers. Users offered a number of different options in this regard, including whether an issuer is or is not a "venture issuer" (as such term is defined under NI 51-102), the issuer's market capitalization and/or particular industry.

We recognize that Canada has a unique composition of issuers with the vast majority of issuers having a relatively modest market capitalization, as compared with other countries. As such, a focused application of new disclosure requirements to a subset of issuers would need to be best suited to our market. Users suggested that staff should consider, among other things: (i) the type of disclosure required; (ii) the resources of issuers in the subset to provide this disclosure; and (iii) the consistency of the application of requirements from one reporting period to another.

D) New prescriptive requirements vs. enhanced guidance

We also had significant discussions during our Consultations on whether the disclosure on the risks, opportunities and impacts of climate change required new prescriptive requirements or guidance based on existing requirements. Many users indicated that the existing disclosure requirements supplemented by additional guidance would not be sufficient to effect a significant change in the quality of this disclosure. In particular, these users suggested that new regulatory disclosure requirements would be necessary to create any meaningful improvements. Most of the users we consulted noted that environmental matters, including climate change, are increasingly being considered by investors in their investment and voting decisions and as such, specific and clear disclosure requirements are a key means to assisting issuers in providing decision-useful information to their investors.

On the other hand, some users felt that additional guidance on climate change-related reporting would encourage a more robust approach to this disclosure and that prescriptive requirements would lead to increased boilerplate disclosure. Some users were also of the view that imposing prescriptive requirements would not be appropriate at this time, as in their view, an ideal model for climate change-related disclosure has not been established. Rather, these users felt that efforts should be focused on encouraging issuers to improve their climate change-related disclosure practices through guidance, education and other methods of engagement.

As discussed above, many users indicated that one of their key challenges is determining whether an appropriate materiality assessment with respect to climate change-related risks has been conducted by issuers. In this regard, some users suggested that instead of prescriptive disclosure requirements in all cases, a "comply or explain" approach may be appropriate. For example, this would require that issuers either disclose specific climate change-related risks, or explain why climate change does not pose a material risk to their business. We acknowledge, however, that such a requirement would entail a departure from the general approach applied to securities-related disclosure in Canada, whereby issuers are generally not required to disclose information that is not material, and may omit negative answers.

E) GHG reporting and scenario analysis

Another area where users' views differed was whether issuers should be required to disclose GHG emissions and/or scenario analyses in their regulatory filings. In this respect, staff had asked users for their input on these particular disclosure items in light of the TCFD Recommendations. The following summarizes certain users' views with respect to both types of disclosure.

GHG Reporting	
Users' view for reporting	**Users' view against reporting**
• Quantitative data inherently avoids boilerplate disclosure. • Provides a baseline, that over time, will identify broad trends, which is decision useful information. • Climate change-related risks associated with changes in regulations, the physical environment and technological developments have the potential to impact investment returns, resulting in some users making investment decisions based on the GHG efficiency of issuers. • Particularly relevant for high-emitting issuers/industries, as regulatory costs associated with GHG emissions will become more material over time. • Requirement for some users to disclose total portfolio footprint. • GHG Protocol provides an established and widely accepted methodology to allow for aggregation and comparability.	• Costly to conduct. • Collecting GHG emissions data takes away resources that are better spent elsewhere. • Usefulness of such information is still unclear. • Not a financial risk metric for some users. • Regulatory costs associated with GHG emissions are not material at this time. • Emissions data is a snapshot at a certain point of time; as such its usefulness is uncertain. • Data may be unreliable as information is generally not verified. • Scope 3 emissions, which are the most difficult to calculate and aggregate with certainty, account for a majority of all emissions.

Scenario Analysis	
Users' view for reporting	**Users' view against reporting**
• Useful across multiple sectors, especially for disclosing an issuer's strategy and its resiliency in a changing environment. • Useful tool to assist issuers in identifying their material climate change-related risks. • While difficult, development of standardized and relevant assumptions is possible, for example by industry organizations.	• Difficult to conduct – lack of experience by issuers and requires long term analysis. • Requires a significant number of assumptions and factors, and as such could allow issuers to present favourable outcomes, resulting in this disclosure being used for promotional purposes. • Generation of scenario analysis requires the application of assumptions and key factors that if undisclosed, could impact usefulness and reliability of analysis. On the other hand,

	disclosure of assumptions and key factors may divulge commercially sensitive information. • Standardized set of assumptions are required for comparability, however this inhibits incorporation of additional factors that may provide more insight into an issuer's business.

4.4 Issuers' perspectives

Key Points

- While some, principally larger, issuers are receiving requests from users for climate change-related information, a number of issuers are not being asked to provide this information at all.

- Issuers suggested it was more appropriate to report non-material climate change-related disclosure on a voluntary basis rather than in regulatory filings, and expressed concern that mandatory reporting could result in a disproportionate and potentially misleading emphasis on climate change-related risks relative to other equally or more significant risks.

- There is no consensus amongst issuers as to whether there should be a single prescribed framework for climate change-related disclosure. Many issuers are of the view that a single framework for climate change-related disclosure is inadequate to accommodate the specific circumstances of all industries and issuers, and that a "one size fits all" approach in this area will not meet the needs of issuers or investors. Several issuers expressed concerns that even if a single framework was mandated, requests by users for diverse, specific and non-material information in relation to climate change would continue.

- Many issuers identified their concerns about mandatory disclosure requirements in relation to climate change, including:

  - potential increases in the cost of compliance and regulatory burden for issuers which are disproportionate to the benefits realized by investors,

  - concerns that some of the demand for this information is driven by considerations other than investment considerations, such as mass divestment movements, and that the objectives of some users of this information may not be aligned with the interests of shareholders, and

  - limitations of current frameworks and measurement standards which are not yet fully developed.

i) Issuers have a range of perspectives on climate change-related disclosure

A) Demand for climate change-information is not consistent from issuer to issuer

It is clear that the current level of demand for climate change-related disclosure varies dramatically among issuers, often depending on the size of the issuer and the composition of its investor community. Generally speaking, the largest issuers in carbon-intensive business sectors are under significant pressure from investors and others to provide meaningful disclosure in relation to climate change-related risks and the associated financial impacts.

While some smaller issuers are also being asked to disclose this information, a substantial number of issuers in our Consultations reported little or no demand on the part of users for this information at the present time. This was consistent with the Issuer Survey responses, where 49% of issuers indicated no demand, and 31% indicated low demand (16% moderate, 0% significant, and 4% responded they “don’t know”). In some cases, issuers noted during our Consultations that the perceived lack of demand may be due to the fact that they already provide climate change-related disclosure in their voluntary filings. Some issuers speculated that the limited demand for climate change-related information might be attributable to characteristics of their investor community, such as a limited number of institutional investors, or a large number of investors principally focused on short-term results.

B) Issuers favour flexibility, as opposed to prescriptive requirements

Few issuers consulted expressed enthusiasm for the prospect of additional mandatory disclosure requirements in relation to climate change-related risks and financial impacts. However, some issuers identified potential benefits of a single disclosure regime, whether voluntary, mandatory or some combination of the two, including greater certainty with respect to the disclosures required, a “level playing field” for all issuers from a disclosure standpoint, and increased rigour in the preparation and verification of disclosure presented in mandatory filings.

Many issuers acknowledged that inconsistency in climate change-related disclosures, and the inability to perform direct comparisons on common disclosures and metrics, is an issue. These issuers suggested that providing further guidance (pointing to established voluntary frameworks, commonly used standards, etc.) for those issuers that choose to voluntarily disclose additional climate change-related information would likely be helpful. Some issuers indicated that the disclosure in CD filings tends to converge among peers, which has resulted in boilerplate disclosure over time, and that voluntary disclosure tends to be less susceptible to this trend.

Issuers indicated a strong preference for the current disclosure requirements, where information determined to be material for purposes of securities laws in Canada must be disclosed in CD filings, while additional non-material information may generally be disclosed on a voluntary basis. Many of the issuers consulted expressed interest in updated guidance from the CSA with respect to disclosure in relation to climate change-related risks and financial impacts.

A number of issuers noted that the flexibility permitted in voluntary disclosure enables them to provide readers with additional information that might not typically be included in a CD document. These issuers emphasized that context is required to make the information requested understandable. For example, year-over-year changes in GHG emissions could have a number of causes, such as changes in production, improved emissions strategies or shifts in assets. Under those circumstances, metrics taken out of context could be misleading and/or lead to inappropriate investment decisions.

In addition, several issuers and other stakeholders indicated that full comparability between the disclosure of different issuers in different industries may be difficult to achieve, even with prescribed disclosures, since some variability in the underlying data and assumptions is inevitable. Emissions metrics are prepared for different purposes and often using various methodologies.[6] Further, a multitude of differing factors and assumptions are built into emissions calculation methodologies. Comparability, even within

[6] While the GHG Protocol is widely-used globally, we found in our Disclosure Review that most issuers that disclose emissions use a combination of methodologies and guidance.

industries, may not be appropriate; for example, within the oil and gas industry, issuers have differing projects, outputs and reserves, each with varying timelines.

Other issuers indicated that they have been able to obtain a level of independent assurance over their reported GHG emissions. While this assurance does not necessarily validate the emission numbers, it highlights areas where emissions calculations are inconsistent (for example across the organization), thereby driving the issuer to work towards consistency in their calculations. One concern raised in relation to a requirement to provide assurance in respect of GHG emissions reports in CD filings is that it would be difficult to coordinate the preparation of such reports and assurance within the timelines imposed by securities filing deadlines.

Based on our consultations, some issuers were concerned that even if securities regulators recommended or imposed a single standard of measurement (for GHG emissions disclosures), issuers would still be required to report the same information, using other standards, to satisfy reporting requirements of other regulatory bodies depending on the scope and location of their operations (such as Environment Canada, provincial environmental regulators and the U.S. Environmental Protection Agency).

C) Some issuers questioned the materiality of climate change-related risks and financial impacts

Several issuers expressed doubts regarding the materiality of climate change-related risks and financial impacts to their businesses. A number of issuers advised us that they had considered climate change-related risks and financial impacts, and determined that while some of these impacts, such as the impact of carbon taxes and other carbon pricing schemes, were both known and quantifiable, they were simply not considered to be material to the issuer or its investors based on the standard of materiality prescribed by securities laws in Canada.

In a few instances, issuers indicated that they do not disclose climate change-related information because they are not significant emitters of GHG or otherwise contributing to the underlying causes of man-made climate change. This suggests an incomplete understanding on the part of some issuers and other stakeholders of the implications of climate change-related risks and financial impacts, which may affect issuers' businesses irrespective of the carbon intensity of their own operations. For example, retailers and service providers in communities which are heavily reliant on carbon intensive industries for employment may be significantly impacted by the gradual transition towards a lower carbon economy, even though their own operations do not produce significant emissions. In addition, issuers may be impacted by the physical effects of climate change, based simply on their geographic location, rather than their GHG emissions levels.

D) Undue emphasis on climate change may detract from other environmental risks and impacts

Several issuers we consulted advised us that they have established risk management processes that consider risks and impacts of climate change along with a wide range of other environmental risks and that the preparation of disclosure providing investors with insight into these processes would not be burdensome. Some of these issuers noted that the widespread public attention being paid to climate change may over-emphasize the risks and impacts of climate change as compared with other risks (environmental or otherwise), which may be more material to an issuer's business from a financial standpoint. These issuers also questioned whether an approach to disclosure that singled out climate change-related risks and impacts for disclosure, among many other environmental risks and impacts, could be reconciled with the general requirement under securities laws in Canada that risks be presented in order of their seriousness to the issuer, from the most serious to the least serious.

E) Issuers have concerns about the motivations underlying some stakeholder demands

Our Consultations revealed increasing issuer frustration with some of the demands of stakeholders for information on climate change-related topics. While some of the larger users seek information related to issuers' risk management and the resilience of their business strategy to the effects of climate change, a number of issuers reported that the climate change-related information they were being asked to provide was frequently "granular" in nature, and that in many cases, only a small fraction of the information requested was actually decision useful for investors in relation to investment and voting decisions. In other cases, results from our Consultations indicated that the issuer would like to better understand what climate change-related information investors are seeking and how it is used in their investment-decision making process.

Several issuers indicated that their responsiveness to demands for disclosure depended on their perception of the use to which the disclosure would be put (and its resulting value to the issuer and its investors). These issuers advised us that while they are very willing to accommodate requests for information from investors or analysts, they are less willing to expend resources on inquiries from stakeholders who appear to be pursuing an agenda that diverges from that of a reasonable investor focused on a financial return on investment. There is some concern among issuers that the motivations underlying some of these requests is not aligned with the interests of investors, and that the additional disclosure being requested will be used in litigation, resulting in negative impacts on the reputations of issuers or in furtherance of mass divestment campaigns directed at carbon-intensive industries.

ii) Challenges of providing climate change-related disclosure

A) Additional costs and regulatory burden of mandatory climate change-related disclosure

A number of issuers we consulted expressed an interest in additional regulatory guidance or educational opportunities with respect to climate change-related risks and financial impacts and expressed concerns about the potential costs and new regulatory burdens that would accompany new rules prescribing mandatory disclosure of climate change-related information. A number of larger issuers that currently produce sustainability reports on a voluntary basis noted the significant cost and personnel committed to their preparation, and suggested that a comparable commitment would represent a very significant new burden for many smaller issuers. Some issuers noted that the imposition of extensive mandatory climate change-related disclosures could result in a cost structure that would be impossible for some smaller issuers to sustain.

Specifically, with respect to disclosing metrics such as GHG emissions, issuers indicated that in their view there is currently a lack of consistency in their calculation, complexities inherent in their preparation and the potential need for outside assurance expertise. Issuers viewed these as factors that could significantly increase regulatory burden. As a result, several issuers doubted whether the benefits of providing this disclosure justified the costs of obtaining it.

Several issuers suggested that the imposition of new disclosure obligations would discourage issuers from entering, or continuing to participate in, the Canadian public markets. They noted that this may also lead to a decrease in the competitiveness of Canadian issuers compared to peers in jurisdictions without comparable mandatory requirements.

B) Continually shifting and uncertain regulatory landscape

Several issuers in carbon-intensive industries stated that, in their view, the current regulatory landscape in Canada with respect to GHG emissions is unsettled. Further, climate change more generally represents a significant challenge to issuers seeking to identify and disclose material climate change-related risks and financial impacts. We acknowledge the challenge presented by this issue. We note however, that issuers are frequently confronted by a complex array of uncertainties that they must take into account when formulating their business strategies and disclosing risk factors and other information.

C) Forward-looking information

Some of the issuers we consulted indicated that the additional climate change-related disclosures that are being requested (and recommended in certain voluntary frameworks) consist of forward-looking information (**FLI**). Further, some issuers noted that in some cases this FLI is of a nature and extent which would be difficult to accommodate under existing securities laws in Canada.

NI 51-102 includes detailed requirements in Parts 4A and 4B with respect to the disclosure of FLI and financial outlooks (which would likely apply to projected impact of climate change-related issues, scenario analysis, etc.), which applies to both mandatory and voluntary disclosure. In order to disclose a financial outlook, the information must be based on reasonable assumptions and limited to a time period for which the information can be reasonably estimated. Several issuers that were consulted indicated they would not be able to meet this standard for some of the disclosures that were being suggested in relation to climate change-related risks and opportunities, given the level of uncertainty and subjectivity associated with climate change, and the lengthy time frame over which some of its effects are likely to develop.

D) Some issuers lack expertise with respect to climate change and the associated risks and financial impacts

A significant number of issuers we consulted indicated that they currently include risks arising from the effects of climate change, and the regulatory, policy and other efforts taken to mitigate it, into their ongoing risk management activities. Some larger Canadian issuers have stated that they have significant in-house expertise in this area. While these issuers typically describe their governance and risk management activities in their CD filings, they noted that their disclosure seldom singles out climate change-related risks for extensive additional disclosure, above and beyond their general environmental risk management disclosure that is intended to cover both climate change and other environmental topics.

Other issuers acknowledged challenges with respect to the disclosure of climate change-related information due to a lack of institutional expertise concerning the implications of climate change for their business. In a number of instances, these issuers indicated that they were developing this expertise, and that they expected their disclosure practices to improve with the acquisition of greater expertise over time. We also consulted with issuers that expressed a reluctance to break new ground in this area, preferring to monitor and remain aligned with standard disclosure practices within their identified peer group.

4.5 Current disclosure requirements and frameworks and potential future trends

Key Points
• We found that the securities laws of the United States take a similar approach to securities laws in Canada, in that they do not prescribe explicit disclosure requirements in relation to climate change-related information. By contrast, certain other jurisdictions have imposed specific mandatory climate change-related disclosure requirements. • There are presently a number of frameworks for voluntary corporate sustainability reporting that are relevant to the disclosure of risks and impacts associated with climate change. Some sustainability reporting frameworks are comprehensive, contemplating the disclosure of information on a wide range of sustainability topics, including climate change-related topics among many others. Other frameworks are more narrowly focused on risks and financial impacts associated with climate change.

- As the disclosure of climate change-related risks and financial impacts matures and becomes more prevalent, staff believe a gradual convergence in disclosure practices is likely.
- The earliest evidence of this convergence is being seen in voluntary disclosure frameworks, where the TCFD Recommendations seem likely to influence the future development of other voluntary frameworks.
- Ultimately, this process may be driven primarily by the demands of investors and the resulting incentives for issuers to meet those demands.
- While a convergence in climate change-related disclosure practices may offer a number of benefits for issuers and investors, a monolithic and inflexible approach to this disclosure may be accompanied by a reduction in the usefulness of this disclosure and other drawbacks.

4.5.1 Current disclosure requirements and voluntary frameworks

In connection with the Project, we reviewed climate change-related disclosure requirements in a number of other countries, as well as a number of prominent voluntary disclosure frameworks.

i) International climate change-related disclosure requirements

In connection with the Project, we reviewed the environmental reporting requirements of other jurisdictions as they relate to the disclosure of risks and financial impacts associated with climate change.

We found that the securities laws of the United States take a similar approach to securities laws in Canada, in that they do not prescribe specific disclosure requirements in relation to climate change-related information. By contrast, certain other jurisdictions have imposed specific mandatory climate change-related disclosure requirements. For example, in the United Kingdom, quoted companies (as defined by the *Companies Act 2006*[7]) are required to disclose the annual quantity of GHG emissions for which they are responsible (or where it is not practical to obtain any or all this information, to state what information is omitted and provide reasons why) and to report on environmental matters to the extent it is necessary for an understanding of the company's business within their annual reports. In Australia, recommendations from the Australian Securities Exchange (the **ASX**) provide that companies listed on the ASX should disclose whether they have any material exposure to economic, environmental and social sustainability risks and, if so, how they manage or intend to manage those risks.

Issuers or their equivalent in all of the jurisdictions whose requirements we reviewed are required to disclose material risks, which may include climate change-related risks or other environmental risks. The definition of materiality is generally consistent across all jurisdictions. Information is material if there is a substantial likelihood that a reasonable investor would consider the information important to an investment decision.

Similarly, an issuer's filings are subject to internal review and approval in all jurisdictions. As in Canada, United States securities laws also impose CEO and CFO certification requirements. The review, approval and certification process is expected to ensure that material climate change-related information is considered, along with any other information material to an issuer's business.

[7] 2006 (U.K.), c.46.

ii) Voluntary disclosure frameworks

There are presently a number of frameworks for voluntary corporate sustainability reporting that are relevant to the disclosure of risks and impacts associated with climate change. These frameworks fall within two general categories:

1. comprehensive frameworks for the disclosure of information on a wide range of sustainability topics, including climate change-related topics among many others, and

2. frameworks more narrowly focused on risks and financial impacts associated with climate change.

Our research in connection with the Project focused on four of these frameworks: the IR Framework and the GRI Framework, both of which are disclosure frameworks of the former type, and the SASB Framework and TCFD Recommendations, which are climate change-related disclosure frameworks of the latter type.

In addition to these frameworks, at least one organization, CDP (formerly, the Carbon Disclosure Project), conducts an extensive voluntary survey of issuers on an annual basis. The CDP survey seeks detailed quantitative and qualitative information from issuers with respect to a wide range of climate change-related matters. Information collected through the survey is publicly disclosed (for most issuers who respond), along with the names of issuers that have chosen not to participate.

While the general disclosure guidelines contained in these frameworks overlap in a number of areas, they differ in detail, such as the specific metrics and qualitative disclosures they prescribe. More significantly, some of the frameworks are intended to serve a much wider range of stakeholders than investors, and adopt a concept of materiality that differs significantly from the materiality standard contemplated by Canadian securities laws.

A) Sustainability disclosure frameworks

The sustainability disclosure frameworks we reviewed require reporting organizations to adopt an approach to disclosure that differs significantly from the model on which the regulatory disclosure regime in Canada is based.

For example, under the IR Framework, stakeholders are broadly defined to include investors, creditors, governments, regulators, non-governmental organizations, employees, environmental groups, customers, suppliers, policy makers and others. Materiality under the IR Framework is judged in relation to increases and decreases in “capitals”, which include financial capital, manufactured capital, intellectual capital, human capital, social and relationship capital and natural capital.

Similarly, the GRI Framework also contemplates a broad stakeholder group, which includes any entity or individual that can reasonably be expected to be significantly affected by the reporting entity’s activities. Material topics, for purposes of a sustainability report conforming to the GRI Framework, include the reporting entity’s significant economic, environmental and social impacts, as well as topics that substantively influence the assessments and decisions of stakeholders.

B) Climate change-related disclosure frameworks

The SASB Framework and the TCFD Recommendations bear greater similarity to the disclosure model under securities laws in Canada in terms of their target audience and standard of materiality, however they differ in that they prescribe much more specific quantitative and qualitative disclosure requirements in respect of climate change-related risks and financial impacts.

The SASB Framework is intended to provide industry by industry guidance for issuers to measure, manage and report performance on critical dimensions of climate risk that SASB considers material to investors. This guidance includes quantitative metrics and qualitative disclosure requirements that are much more specific and detailed than the more general requirements of the CD regime in Canada, as summarized in SN 51-333. Materiality is defined to include only those climate change-related impacts that are reasonably likely to affect the financial performance or operating condition of a company and, therefore, to affect shareholder value. While not identical, this standard is similar to the one imposed on reporting issuers by securities laws in Canada.

Climate change-related disclosure under the TCFD Recommendations is targeted at issuers, but also a broader range of organizations. While the disclosures recommended in the TCFD Recommendations in relation to strategy, metrics and targets require an assessment of materiality that is to be determined in a manner consistent with that of other risks in an organization's regulatory filings, the TCFD recommends that other information in respect of governance and risk management processes in relation to climate change-related risks and opportunities be disclosed irrespective of its materiality.

C) TCFD Recommendations compared with current requirements in Canada

There are similarities between some of the TCFD Recommendations and the requirements of Canadian securities laws, as summarized in SN 51-333, as well as a number of significant differences.

While the TCFD Recommendations in relation to governance and risk management resemble those discussed in SN 51-333, they include disclosure recommendations that are significantly more comprehensive than those set out in Canadian securities laws, or the guidance in SN 51-333. For example, current Canadian securities laws require disclosure of environmental policies fundamental to an issuer's operations, the text of an issuer's board mandate (or a description of how the board delineates its role and responsibilities), a description of board standing committees' functions and the text of the audit committee's charter. By contrast, the TCFD Recommendations include more specific disclosure relating to the governance and risk oversight of climate-change related risks, such as describing:

- the board's oversight of climate change-related risks and opportunities,
- management's role in assessing and managing climate change-related risks and opportunities, and
- the organization's processes for identifying, assessing and managing climate change-related risks, and how such processes are integrated into the organization's overall risk management.

In addition to the guidance for all business sectors, the TCFD Recommendations provide additional guidance for the financial sector as well as certain non-financial business sectors potentially most affected by climate change-related issues.[8] The TCFD Recommendations suggest that climate change-related strategy and metrics disclosures are to be disclosed where such information is material, with the exception

[8] Energy; transportation; materials and buildings (including real estate); and agriculture, food and forest products.

of those four non-financial groups identified, where the recommendation is that issuers within those groups that have more than $1 billion U.S. dollar equivalent in annual revenues provide those disclosures in voluntary reports even when the information is not deemed material and thus not included in regulatory filings.

The TCFD Recommendations suggest disclosure of impacts of climate change-related risks and opportunities on an organization's businesses, strategy, and financial planning. They diverge significantly from the disclosure requirements of Canadian securities laws by advocating the use of scenario analysis to assess the resilience of the organization's business strategy in the face of climate change and the transition to a lower-carbon economy. Organizations are specifically encouraged to include a publicly available 2°C scenario in their climate change-related disclosure, as well as two or three other scenarios relevant to an organization's circumstances. Not only is there is no direct equivalent to this requirement under Canadian securities laws, certain issuers we consulted were of the view that the disclosure of scenario analyses of this type may be problematic in light of the restrictions imposed on FLI by Part 4A and Part 4B of NI 51-102.

The TCFD Recommendations also differ from Canadian disclosure requirements by requiring the disclosure of:

- the metrics used by the organization to assess climate change-related risks and opportunities,
- Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and
- the targets used by the organization to manage climate related risks and opportunities and performance against targets.

4.5.2 Potential future trends and their implications

One of the stated objectives of the TCFD Recommendations is to promote alignment across existing disclosure regimes. While it remains to be seen whether the TCFD Recommendations will succeed in meeting this objective, there are some early indications that the sponsors of some of the voluntary frameworks, such as CDP and SASB, may align their efforts with the TCFD going forward. We also consulted with a number of users who suggested that the TCFD Recommendations might serve as a catalyst for the convergence of climate change-related disclosure standards, for both voluntary and mandatory filings. Whether this early enthusiasm will generate sufficient momentum to produce a meaningful level of convergence among the different voluntary disclosure frameworks is not yet certain.

Whether it occurs through broad use of the TCFD Recommendations or through some other mechanism, climate change-related disclosure practices may converge as our understanding of climate change-related risks and impacts matures and their disclosure becomes more prevalent over time.

Over the course of the Project, we have explored a number of issues in relation to the convergence of disclosure practices, including:

- whether the widespread adoption of a uniform set of metrics and qualitative disclosures will satisfy the needs of a sufficient number of investors and others such that the cost to issuers of producing such disclosures will be largely offset by a reduction in the demand by investors and others for additional disclosure on a piecemeal basis,
- whether any such disclosure guidelines or requirements should apply to all issuers, or be limited to issuers of a certain size or engaged in certain industries or other relevant criteria,

- whether a uniform set of metrics and qualitative disclosures provide useful comparability information,
- whether convergence or uniformity in disclosure practices might result in "boilerplate" disclosure in some circumstances, and
- the extent to which climate change-related disclosure should remain voluntary, as opposed to being required in regulatory disclosure filings.

i) Benefits of harmonization

Over the course of the Project, a number of consultees and respondents to the Issuer Survey indicated that they would welcome convergence in the various disclosure frameworks for climate change-related information. A number of significant benefits could flow from such a framework.

From an investor standpoint, the feedback we received noted the following potential benefits of convergence in disclosure frameworks:

- more robust disclosure in relation to climate change-related risks and impacts from a greater number of issuers, and
- disclosure that is more consistent, transparent, comparable and reliable as between issuers and industries as a whole.

Feedback from issuers noted the following potential benefits of convergence in disclosure frameworks:

- a level playing field for the preparation and disclosure of information in respect of climate change-related risks and financial impacts,
- the facilitation of issuers' efforts to comply with any potential mandatory disclosure requirements,
- some measure of certainty on the part of management and boards of directors regarding the adequacy of an issuer's disclosure of climate change-related information, and
- a significant reduction in demand for climate change-related information from investors and others on a piecemeal basis.

ii) Drawbacks of a single approach

While there is a strong current of opinion favouring convergence in the various approaches to climate change-related disclosure, other feedback received suggests that a single approach to disclosure within a narrowly defined set of parameters may not address the needs of all investors in all circumstances, and may be accompanied by a degree of inflexibility which would deprive issuers of the ability to provide necessary context. As noted above, a number of issuers indicated that the climate change-related information they were being asked to provide was frequently "granular" in nature, which suggests that a single framework may be insufficient to meet the demands of some investors and others, who will continue to seek a significant amount of additional disclosure.

Others expressed caution that a uniform set of metrics may not yield comparability and could result in erroneous conclusions. Moreover, a number of consultees and respondents to the Issuer Survey also expressed concerns that the convergence of disclosure requirements could lead to "boilerplate" disclosure or to a “one size fits all” approach to climate change-related disclosure that would be unduly burdensome for all but the largest issuers.

iii) One size may not fit all

While the users consulted indicated a desire for high quality climate change-related disclosure from issuers of all sizes in all industries, they also indicated that their expectations are currently highest in relation to large issuers in carbon-intensive industries. There appears to be an expectation on the part of users that high quality climate change-related disclosure practices will start with the largest issuers, and steadily gain traction among smaller issuers to the extent that users pay greater attention to those smaller issuers over time.

Many of the issuers we consulted, on the other hand, expressed significant concerns about the cost and regulatory burden associated with onerous mandatory climate change-related disclosure requirements. We consulted a number of very large Canadian issuers that currently prepare comprehensive voluntary sustainability reports in compliance with existing disclosure frameworks, such as the GRI Framework or the IR Framework, and were advised that the preparation of fully-compliant sustainability reports is very costly and time consuming. We also met with several issuers that participate in the annual CDP survey, and were advised that this process has also become very burdensome in recent years.

The TCFD Recommendations were framed by a task force principally comprised of representatives of very large organizations with significant available resources to commit to climate change-related disclosure, whereas Canada is mainly comprised of issuers with more modest capitalizations. While the reporting of climate change-related risks and financial impacts is important, we also recognize that the imposition of extensive mandatory disclosure requirements may impose a disproportionate burden upon many issuers in the Canadian market.

Throughout the Project we noted that most issuers that disclosed emissions information (generally in their voluntary disclosures) used many different calculation standards, often in combination. As previously noted, there is concern among issuers that the imposition by securities regulators of a standardized metric or measurement standard will not necessarily provide consistent disclosure and reduce duplication, but rather add to what they are already required to provide for other purposes. In addition, since one standard does not appear to be sufficient to address the disclosure needs of all users, or the different circumstances of issuers across multiple industries, there is concern that a single measurement standard, such as the GHG Protocol (the metric endorsed by the TCFD Recommendations) may not be appropriate for all issuers.

iv) Some issuers seek flexibility to produce disclosure that meets the needs of their investors

While some issuers are disclosing climate change and other sustainability-related information in accordance with one of the standardized voluntary disclosure frameworks, other issuers have drawn on these frameworks to a more limited extent, or not at all. A number of issuers informed us that they have relied upon investor feedback to disclose only that information that they consider to be meaningful to, and responsive to the needs of, their own investors. Some issuers with extensive experience in sustainability reporting emphasized the importance of a disclosure regime that permits issuers to provide additional context against which metrics and other information can be better understood by investors and other users of information and have noted that a single disclosure framework, if excessively rigid, might deprive issuers of the flexibility to provide disclosure that reflects their own circumstances and investor community.

v) Uniform requirements may not necessarily produce better disclosure

Many proponents of uniform requirements cite comparability as one of its main benefits (along with consistency and transparency); however, some other stakeholders caution that comparability may not actually result from uniformity. In order to build in some flexibility, many frameworks, including the TCFD Recommendations, build some options or alternatives into their recommendations. For example, while the TCFD Recommendations recommend the calculation of emissions in accordance with the GHG Protocol, they also state that companies may use national reporting methodologies if they are consistent with the GHG Protocol. Further, they have noted that the scenario analyses outlined in the TCFD Recommendations would include such a high degree of estimation and broad assumptions that comparability would be unlikely. Similarly, many metrics, such as key performance indicators, are meant to provide issuer-specific insight as to what is important to the issuer and how it manages its business. As a result, they viewed the nature and composition of such metrics to be inherently non-comparable.

Some issuers noted that one unintended but inevitable side effect of convergence in disclosure requirements would be a corresponding convergence in issuers' disclosure to the point that such disclosure would be reduced to formulaic "boilerplate" disclosure providing investors with limited insight into an issuer's unique circumstances. A number of users expressed similar concerns.

5. CSA Plans for Further Work

The Project allowed us to gain a greater understanding of both users' and issuers' perspectives on the current state of climate change-related disclosure. As is clear from Part 4 of this notice, we heard a wide range of perspectives from users, issuers and others. Our plans for future work in this area reflect our consideration of what we heard, our assessment of the current state of disclosure in this area, and recognition of the realities of the Canadian capital markets, which include a relatively large number of smaller companies. We also seek to avoid imposing undue regulatory burden on Canadian issuers.

5.1 Summary

There was a broad consensus among the users consulted that disclosure in respect of climate change-related risks and financial impacts needs to improve. Users noted that in many cases, disclosure is not provided, while in other cases much of the disclosure provided is boilerplate, vague or viewed as incomplete. They also found the climate change-related disclosure provided by issuers often lacked clarity and consistency, which limited their ability to compare such disclosure between issuers. Certain users told us these deficiencies negatively impacted their ability to make voting and investment decisions. Several mechanisms were suggested to improve this disclosure.

In suggesting potential options for next steps, issuers indicated a preference for further education, refreshed guidance and a solution consistent with the current approach to disclosure in Canada, where information determined to be material for purposes of securities laws in Canada must be disclosed in CD filings, while additional non-material information may generally be disclosed on a voluntary basis. Users also indicated a preference for further education and refreshed guidance, however they also saw a need for new disclosure requirements.

In light of these considerations, we intend to focus our work in the following areas in the near-term:

(i) development of guidance and educational initiatives for issuers with respect to the business risks and opportunities and potential financial impacts of climate change, and

(ii) consideration of new disclosure requirements regarding corporate governance in relation to risks, including climate change-related risks, and risk oversight and management.

In addition to these near-term projects, we will continue to monitor the quality of issuers' disclosure with respect to climate change-related matters, as well as the ongoing development of best disclosure practices in this area, to assess whether further work needs to be done to ensure that Canadian issuers' disclosure continues to develop and improve.

We also intend to continue to monitor developments in reporting frameworks, evolving disclosure practices and investors' need for additional types of climate change-related disclosure to make investment and voting decisions, and whether disclosure requirements in relation to Scope 1 and Scope 2 GHG emissions are warranted in the future.

5.2 Guidance and education

i) The need for guidance and education

The users we consulted were consistent in suggesting that issuers across a wide range of industries could benefit from additional guidance and education with respect to the business risks and opportunities and potential financial impacts of climate change. In some cases, users highlighted the importance of an issuer's board of directors having an appropriate level of expertise in this area and suggested that this level of expertise may not currently be present. We heard that more guidance focused specifically on climate change would be beneficial to issuers and their advisors.

A number of issuers we consulted expressed an interest in additional regulatory guidance or educational opportunities with respect to climate change-related risks and financial impacts. One of the principal advantages of additional guidance and education is that it may assist issuers in assessing the extent to which their business is affected by climate change-related risks, and improving their disclosure within the existing framework for securities disclosure in Canada.

Our findings through the Project tended to confirm the need for further education and guidance for issuers and their advisors.

For example, in a few instances, issuers indicated that they do not disclose climate change-related information because they are not significant emitters of GHG or otherwise contributing to the underlying causes of man-made climate change. This suggests a narrow or incomplete understanding on the part of some issuers of the implications of climate change-related risks and financial impacts, which may affect issuers' businesses irrespective of the carbon intensity of their own operations. As previously highlighted, climate change-related risks and opportunities are those risks and opportunities which may affect an issuer, as opposed to the effect an issuer has or may have on the progression of climate change.

According to research conducted by SASB, 72 out of 79 Sustainable Industry Classification System (SICS) industries[9] are significantly affected in some way by climate change-related risk. However, certain industries may be more significantly impacted by certain climate change-related risks than others, and as such, the resulting financial impacts from these risks are likely to vary by industry. For example, issuers in carbon-intensive industries are more likely to see a significant impact from more stringent emissions regulations and the gradual transition to a lower-carbon economy than issuers in other industries. Within the financial sector, property and casualty insurers may have more claims related to extreme weather events, such as flooding or fire, as a result of the increased frequency and severity of these types of events due to climate change. In some circumstances, an issuer may be exposed to a particular climate change-

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[9] The SASB Framework groups companies into industries and sectors based on their resource intensity and shared sustainability risks and opportunities. For more information about SICS, see http://www.sasb.org/sics/.

related risk irrespective of the risks that generally affect their industry. This could occur where an issuer is exposed to significant physical risks of climate change due to the geographic location of its business.

Guidance and education may also be useful to issuers in conducting materiality assessments with respect to climate change-related risks and financial impacts, given the uncertainty which exists with respect to the timing and precise effects of climate change. This uncertainty may cause issuers to take a narrow view of the materiality of those risks and impacts, or to incorrectly dismiss or de-emphasize those risks.

We note that a lack of familiarity and uncertainty with respect to the precise effects of climate change does not relieve issuers of the obligation to take appropriate steps to attempt to identify and assess the materiality of the climate change-related risks and financial impacts that they may be exposed to, in order to provide investors with the information they require to make informed investment and voting decisions. In some instances, issuers may need to develop and consider a range of potential quantitative impacts which, with additional experience and analysis, will become more fine-tuned over time. Ultimately, it is an issuer's responsibility to make a materiality assessment regarding climate change-related risks and financial impacts.

While we acknowledge that issuers may not be able to predict the occurrence of these events with certainty, the disclosure they provide should reflect a thoughtful assessment of the most current information available as to the likelihood of certain risks affecting their business and the potential impact of such risks. An issuer's materiality assessment should not be limited to risks that might reasonably be expected to have an impact upon an issuer in the near term, to the exclusion of risks that may only crystallize over the medium to long term. If an issuer concludes that a climate change-related risk could reasonably be expected to have a potential material impact on the issuer at some point in the future, it should be disclosed, even if it may only arise over the medium or long term. The assessment should be based on whether a reasonable investor's decision to buy, sell or hold securities of an issuer would likely be influenced or changed by the knowledge that a particular risk exists for the issuer and would have material impact on the issuer's business if it were to crystallize.

We note that some sources of guidance in respect of climate change-related risks are already available to issuers. In addition to existing CSA guidance in SN 51-333, the TCFD Recommendations, and the various other voluntary disclosure frameworks for climate change-related information CSA staff reviewed in connection with the Project, offer a number of useful insights regarding the nature of climate change-related risks and financial impacts. These include a number of specific examples of potential risks as well as some of the potential impacts which may flow from them. Issuers may wish to consider the guidance contained in these voluntary frameworks, as well as other relevant resources, as they seek to identify, analyze and disclose these risks and impacts. Using these, along with knowledge of its own business, issuers should make a thoughtful and informed analysis of the type of climate change-related risks that may impact them, the probability of their occurrence and the potential magnitude of their impact.

ii) Further work in relation to guidance and education

The CSA propose to develop new guidance and consider additional initiatives to educate issuers with respect to the business risks and opportunities and potential financial impacts of climate change. This work, which will build on the guidance provided in SN 51-333, may include some or all of the following:

- guidance on entity-specific risk factor disclosure, including legal/regulatory, physical, transitional and reputational risks associated with climate change, and their financial impact on revenues, expenses, cash flows, assets and liabilities,

- further guidance on trends and uncertainties associated with climate change,

- further guidance with respect to the definition of material information to be applied by issuers when assessing climate change-related risks and opportunities,

- guidance in relation to the governance and management oversight of climate change-related risks, and

- additional initiatives to educate issuers with respect to climate change-related risks and opportunities, such as seminars and publications, as well as reviews of climate change-related disclosure as part of the periodic continuous disclosure reviews conducted by CSA jurisdictions.

Any guidance and educational initiatives developed by the CSA in this area would be intended to assist all issuers in complying with their existing disclosure requirements.

5.3 New disclosure requirements

i) The need for new disclosure requirements

During the Project, many users expressed doubts that guidance alone would be sufficient to produce improvements in the quality of climate change-related disclosure. Some users are of the view that issuers must be compelled by specific and clear disclosure requirements to provide decision-useful information to their investors.

Accordingly, in considering whether new disclosure requirements are necessary or desirable, our objective has been to determine whether any significant gaps exist in our current disclosure framework, and to consider potential options for filling those gaps that do not impose undue regulatory burden on issuers. Based on our work in connection with the Project, we believe that new disclosure requirements should be considered in respect of issuers' governance practices in relation to material business risks and opportunities in general, and their processes for the identification, assessment and management of material risks. These processes are important in the context of all business risks and opportunities, including, for example, emerging or evolving risks and opportunities arising from climate change, potential barriers to free trade, cybersecurity and disruptive technologies.

As indicated in section 2.2 of this notice, section 3.4 of NP 58-201 states that an issuer's board should adopt a written mandate that explicitly acknowledges responsibility for, among other things: (i) adopting a strategic process and approving, at least annually, a strategic plan that takes into account the opportunities and risks of the business; and (ii) the identification of the principal risks of the issuer's business and ensuring the implementation of appropriate systems to manage these risks. Although the guidance regarding environmental matters provided in SN 51-333 states that such disclosure should provide insight into the development and periodic review of the issuer's risk profile, the integration of risk oversight and management into the issuer's strategic plan, the identification of significant elements of risk management and the board's assessment of the effectiveness of risk management, our Disclosure Review suggested that most issuers' disclosure currently provides investors with very little insight in these areas.

A large majority of the users consulted agreed that issuers should provide disclosure regarding their governance and oversight of risks, including those related to climate change. Many users supported the TCFD Recommendations in this regard, which recommend disclosure on:

- the board of directors' oversight of climate change-related risks and opportunities;

- management's role in assessing and managing climate change-related risks and opportunities;

- the process used by issuers to identify and assess climate change-related risks; and

- how such processes are integrated into the issuer's overall risk management process.

As previously discussed, these aspects of the TCFD Recommendations are not subject to an assessment of materiality.

In our Consultations, users offered a number of reasons for seeking this disclosure:

- issuers need reliable governance and risk oversight processes in order to identify material business risks, including material climate change-related risks,

- many users were not confident that issuers have reliable processes in place to identify and manage climate change-related risks,

- in the absence of this disclosure, many users questioned whether an issuer had made an informed analysis and had correctly concluded that climate change does not pose a material risk to it, or whether the issuer substantially overlooked this risk due to lack of expertise, due diligence or otherwise, and

- some larger institutional investors were hesitant to obtain this information through engagement with issuers, due to the risk of selective disclosure in violation of securities laws.

Most of the issuers we consulted indicated that they do, in fact, have processes in place for the management and oversight of risk, including climate change-related risk, which they consider to be reliable. They further indicated that the preparation of disclosure providing investors with insight into these processes would not be burdensome.

ii) Further work in relation to new disclosure requirements

Accordingly, we intend to consider proposed new disclosure requirements in the following areas:

- disclosure of issuers' governance processes in relation to material risks and opportunities, including the board's responsibility for oversight and the role played by management; and

- disclosure of how the issuer oversees the identification, assessment and management of material risks.

Any potential new rules or amendments to existing rules will need to follow our standard policy-making process, including publishing any proposed amendments for comment prior to implementing them. There is no assurance that any new rules or amendments will ultimately be adopted in any of the CSA jurisdictions.

Implementation of these disclosure requirements may entail amendments to Form 58-101F1, which sets out the disclosure requirements for TSX-listed and other non-venture issuers regarding their corporate governance practices. Any new disclosure requirements would be intended to provide insight into the processes through which issuers identify and manage all material business risks, including material climate change-related risk. In addition, we may also:

- change NP 58-201 to introduce corporate governance guidelines in the areas contemplated by any such new disclosure requirements, and
- provide additional staff guidance on how any such new disclosure requirements apply in the context of climate change-related risk.

To manage the impact of these new requirements on smaller issuers, we also anticipate that their application would be limited, at least initially, to non-venture issuers.

5.4 Areas of ongoing work

In our view, based on the findings of the Project, users' interest in climate change-related risks and opportunities will continue to increase. We further acknowledge that disclosure practices in relation to climate change-related disclosure will continue to evolve. Accordingly, further to the additional guidance and new disclosure requirements described previously, we will continue to monitor the quality of issuers' disclosure with respect to climate change-related matters, to assess whether additional work needs to be done to ensure that Canadian issuers' disclosure continues to develop and improve. This work may include consideration of the adequacy of climate change-related disclosure in our future reviews of issuers' CD against applicable disclosure requirements.

We will also continue to monitor the ongoing development of best practices in the area of climate change-related disclosure, both in voluntary frameworks and in mandatory continuous disclosure requirements outside of Canada, to determine whether our requirements need to evolve. Among other things, we will continue to assess whether investors require additional types of climate change-related disclosure, such as disclosure of GHG emissions or other metrics, to make investment and voting decisions.

During our Consultations, many users expressed an interest in the disclosure of GHG emissions, particularly Scope 1 and 2 emissions, as a means of assessing issuers' exposure to climate change-related risks. Although some issuers, particularly larger issuers in carbon-intensive industries such as oil and gas, currently disclose GHG emissions in voluntary reports, very few include them in their CD filings. None of these issuers took the view that their actual emissions, and the associated costs resulting from carbon taxes or other charges, were material to their business. We heard mixed views on the complexity of the calculation of GHG emissions and as to whether there is a single agreed metric or framework for their calculation. Additionally, we were told that the impact and significance of GHG emissions varies from industry to industry. We intend to continue to monitor developments in reporting frameworks, evolving disclosure practices and investors' needs in this area, including the disclosure of Scope 1 and Scope 2 GHG emissions, and may consider whether disclosure requirements in relation to Scope 1 and Scope 2 GHG emissions are warranted in the future.

Questions

Please refer your questions to any of the following:

Jo-Anne Matear Manager, Corporate Finance Ontario Securities Commission 416-593-2323 jmatear@osc.gov.on.ca	**Steven Oh** Senior Legal Counsel, Corporate Finance Ontario Securities Commission 416-595-8778 soh@osc.gov.on.ca
Oujala Motala Accountant, Corporate Finance Ontario Securities Commission 416-263-3770 omotala@osc.gov.on.ca	**Cheryl McGillivray** Manager, Corporate Finance Alberta Securities Commission 403-297-3307 cheryl.mcgillivray@asc.ca
Tim Robson Senior Legal Counsel, Corporate Finance Alberta Securities Commission 403-355-6297 timothy.robson@asc.ca	**Victoria Yehl** Senior Geologist, Corporate Finance British Columbia Securities Commission 604-899-6519 vyehl@bcsc.bc.ca
Heather Kuchuran Senior Securities Analyst Financial and Consumer Affairs Authority of Saskatchewan 306-787-1009 heather.kuchuran@gov.sk.ca	**Wayne Bridgeman** Deputy Director, Corporate Finance Manitoba Securities Commission 204-945-4905 wayne.bridgeman@gov.mb.ca
Martin Latulippe Director, Continuous Disclosure Autorité des marchés financiers 514-395-0337 ext. 4331 martin.latulippe@lautorite.qc.ca	**Michel Bourque** Senior Regulatory Advisor, Continuous Disclosure Autorité des marchés financiers 514-395-0337, ext. 4466 michel.bourque@lautorite.qc.ca
Livia Alionte Continuous Disclosure Analyst, Continuous Disclosure Autorité des marchés financiers 514-395-0337, ext. 4336 livia.alionte@lautorite.qc.ca	**Ella-Jane Loomis** Senior Legal Counsel, Securities Financial and Consumer Services Commission (New Brunswick) 506-658-2602 ella-jane.loomis@fcnb.ca
Junjie (Jack) Jiang Securities Analyst, Corporate Finance Nova Scotia Securities Commission 902-424-7059 jack.jiang@novascotia.ca	

Appendix "A"
Definitions and Abbreviations

AIF means annual information form.

ASX means the Australian Securities Exchange.

CD means continuous disclosure.

CDP is a non-governmental organization formerly known as the Carbon Disclosure Project, which, among other things, has established a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts.

Climate change-related opportunity is defined in the TCFD Recommendations to include the potential positive impacts related to climate change on an issuer. Efforts to mitigate and adapt to climate change may produce opportunities for issuers, such as through resource efficiency and cost savings, the adoption and utilization of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an issuer operates.

Climate change-related risk is defined in the TCFD Recommendations to include the potential negative impacts of climate change on an issuer. Physical risks emanating from climate change may be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They may also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise). Climate change-related risks may also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations.

Consultations means the focused consultations with issuers, users and other stakeholders conducted as part of the Project.

CSA or **we** means the Canadian Securities Administrators.

Disclosure Review means the targeted review of current public disclosure practices of selected large Canadian issuers with respect to climate change-related information conducted as part of the Project.

FLI means forward-looking information.

Form 51-102F1 means Form 51-102F1 *Management's Discussion & Analysis*.

Form 51-102F2 means Form 51-102F2 *Annual Information Form*.

GHG emissions scope levels are defined by the GHG Protocol as follows:

- **Scope 1** means all direct GHG emissions;
- **Scope 2** means indirect GHG emissions from consumption of purchased electricity, heat, or steam; and
- **Scope 3** means other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include: the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal.

GHG means greenhouse gas.

GHG Protocol means the standard for calculating and reporting GHG emissions contained in: World Resources Institute and World Business Council for Sustainable Development, *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)*, March 2004.

GRI Framework means the Global Standards for Sustainability Reporting published by the Global Reporting Initiative.

IR Framework means the International Integrated Reporting Framework published by the International Integrated Reporting Council.

issuer means reporting issuer, as that term is variously defined under securities laws in Canada.

Issuer Survey means the voluntary and anonymous on-line survey designed to solicit feedback from a wider range of TSX-listed issuers conducted as part of the Project.

MD&A means management's discussion and analysis.

NI 51-102 means National Instrument 51-102 *Continuous Disclosure Obligations.*

NI 52-109 means National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings.*

NI 52-110 means National Instrument 52-110 *Audit Committees.*

NI 58-101 means National Instrument 58-101 *Disclosure of Corporate Governance Practices.*

NP 58-201 means National Policy 58-201 *Corporate Governance Guidelines*.

Project means the CSA project to review the disclosure of risks and financial impacts to issuers associated with climate change, and the governance processes related to them, which was announced on March 21, 2017.

Publicly available 2°C scenario is defined in the TCFD Recommendations as a 2°C scenario that is used/referenced and issued by an independent body; wherever possible, supported by publicly available datasets; updated on a regular basis; and linked to functional tools (e.g., visualizers, calculators, and mapping tools) that can be applied by organizations. 2°C scenarios that presently meet these criteria include: IEA 2DS, IEA 450, Deep Carbonization Pathways Project and International Renewable Energy Agency. The IEA 2DS lays out an energy system deployment pathway and an emissions trajectory consistent with at least a 50% chance of limiting the average global temperature increase to 2°C. The IEA 2DS limits the total remaining cumulative energy-related CO^2 emissions between 2015 and 2100 to 1,000 gigatonnes of CO^2. The 2DS reduces CO^2 emissions (including emissions from fuel combustion and process and feedstock emissions in industry) by almost 60% by 2050 (compared with 2013), with carbon emissions being projected to decline after 2050 until carbon neutrality is reached.

SASB means the Sustainability Accounting Standards Board.

SASB Framework means the Climate Risk Technical Bulletin published by SASB as Technical Bulletin No. TB001-10182016 in October 2016.

Scenario analysis is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty.

SN 51-333 means CSA Staff Notice 51-333 *Environmental Reporting Guidance*.

sustainability report means an organizational report that gives information about economic, environmental, social, and governance performance and impacts.

TCFD Recommendations means the Final Recommendations of the Task Force on Climate-related Financial Disclosures published on June 29, 2017.