Canadian Securities Administrators
Autorités canadiennes en valeurs mobilières

# CSA STAFF NOTICE 51-333

# ENVIRONMENTAL REPORTING GUIDANCE

October 27, 2010

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# 1. INTRODUCTION

The purpose of this notice is to provide guidance to reporting issuers (other than investment funds) on existing continuous disclosure (CD) requirements relating to environmental matters under securities legislation.

This notice clarifies existing disclosure requirements relating to environmental matters and does not create any new legal requirements or modify existing ones. It is intended to assist issuers in: (1) determining what information about environmental matters needs to be disclosed, and (2) enhancing or supplementing their disclosure regarding environmental matters, as necessary.

Environmental matters include a broad range of issues, including issues related to air, land, water and waste. This notice applies to all issuers but may be more relevant to certain issuers given their particular circumstances.

## 1.1 Developments in the marketplace

The issuance of this notice has been motivated by three key developments: the impact of environmental matters on issuers, the changing regulatory landscape and increasing investor interest in environmental matters.

**Impact of environmental matters on issuers**

Issuers are increasingly recognizing the current and potential effects on their performance and operations, both positive and negative, that are associated with environmental matters. For example, environmental matters can impact an issuer by:

- interrupting operations (including supply and distribution chains, personnel and physical assets)
- resulting in material unplanned costs, such as costs to address an environmental accident
- affecting the issuer's license to operate
- affecting capital expenditure decisions and the viability of projects
- changing consumer preferences
- affecting the issuer's reputation
- altering access to and the cost of capital
- affecting the affordability and availability of insurance, and
- providing new business opportunities.

**Changing regulatory landscape**

The environmental regulatory landscape is constantly changing. Issuers need to regularly assess their disclosure obligations in light of ongoing environmental regulatory developments domestically and abroad, to the extent they may affect an issuer's operations, assets, supply chain or markets.

**Investor interest in environmental matters**

A number of investors are increasingly interested in how environmental matters affect issuers and have been requesting information about these matters from issuers through a number of avenues, such as shareholder resolutions and the issuance of surveys.

**Investor concerns regarding inadequate environmental disclosure**

Investors and other stakeholders consulted during the Ontario Securities Commission's 2009 corporate sustainability reporting initiative expressed concerns regarding the adequacy of disclosure about environmental matters. In particular, they think that, in some cases:

- material information regarding environmental matters is found in voluntary reports and not in securities regulatory filings
- the information provided is not necessarily complete, reliable or comparable among issuers, and is boilerplate disclosure that does not provide meaningful information to investors
- if the information is not included in securities regulatory filings, it is not necessarily provided in a timely manner as the prescribed timelines for CD documents under securities legislation do not apply to voluntary reporting, and
- the information is not integrated into financial reporting.

## 2. ENVIRONMENTAL INFORMATION REQUIRED TO BE DISCLOSED

National Instrument 51-102 *Continuous Disclosure Obligations* (NI 51-102) contains a number of disclosure requirements relating to environmental matters. In addition, National Instrument 58-101 *Disclosure of Corporate Governance Practices* (NI 58-101) and National Instrument 52-110 *Audit Committees* (NI 52-110) contain relevant disclosure requirements.

These disclosure requirements can be considered in the following groups:

- risks and related matters
- risk oversight and management
- forward-looking information (FLI) requirements, and
- impact of adoption of International Financial Reporting Standards (IFRS) on disclosure provided under NI 51-102.

To help issuers comply with these disclosure requirements, we have provided guidance below and included examples of disclosure in the Appendix.

### 2.1 Material information

In considering whether information is required to be disclosed, the determining factor is materiality. As provided in Part 1(e) of Form 51-102F1 *Management's Discussion & Analysis* (Form 51-102F1) and Part 1(d) of Form 51-102F2 *Annual Information Form* (Form 51-102F2), only material information needs to be included in CD documents.

**Test for materiality for CD documents**

The test for materiality is objective. Information relating to environmental matters is likely material if 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. See Part 1(f) of Form 51-102F1 and Part 1(e) of Form 51-102F2.

As noted in Form 51-102F1 and Form 51-102F2, this concept of materiality is consistent with the financial reporting notion of materiality contained in the Canadian Institute of Chartered Accountants (CICA) Handbook.

**Materiality determinations**

***Process for assessing material information***

A TSX-listed issuer[1] is required to establish and maintain disclosure controls and procedures under National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* (NI 52-109). These controls and procedures include those that are designed to ensure that information required to be disclosed by an issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is accumulated and communicated to the issuer's management, including its certifying officers, as appropriate to allow timely decisions regarding required disclosure.

While materiality determinations may limit what is actually disclosed by the issuer, they should not limit the information that management considers in making its determinations.

***Considerations for determining materiality***

The key question for an issuer is whether a particular environmental matter under consideration is material and requires disclosure.

We have been advised that some issuers in the past have found determining materiality in the environmental context to be challenging. To assist issuers, we have set out below some guiding principles to consider when making materiality determinations regarding environmental matters. We note that the guiding principles may assist issuers in making materiality determinations in other contexts.

Some of the guiding principles are derived from National Policy 51-201 *Disclosure Standards* (NP 51-201), which came into force on July 12, 2002. In addition, the guiding principles are derived from decisions of the Canadian securities regulatory authorities rendered after NP 51-201 came into force, such as the Ontario Securities Commission's decision, *Re YBM Magnex International Inc* (2003), 26 OSCB 5285 (the YBM decision). We also reviewed discussions of materiality in the environmental context in sources such as:

- the CICA publication, *Executive Briefing – Climate Change and Related Disclosures* (March 2008)
- the CICA publication, *Building A Better MD&A: Climate Change Disclosures* (November 2008)
- the CICA publication, *Climate Change Briefing* (July 2009)
- the CICA publication, *Environmental, Social and Governance (ESG) Issues in Institutional Investor Decision Making* (August 2010)
- the May 2009 exposure draft of the Climate Disclosure Standards Board Reporting Framework, and
- the U.S. Securities and Exchange Commission's guidance, *Commission Guidance Regarding Disclosure Related to Climate Change* (effective February 2, 2010).

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[1] References to TSX-listed issuers in this notice include references to all reporting issuers that are not venture issuers (as defined in NI 51-102).

The guiding principles below are not an exhaustive list of the factors to be considered when making materiality determinations. They are intended as a general guide, and are not meant as legal or other advice on whether a particular environmental matter is material for a particular issuer. Issuers should refer to securities legislation and NP 51-201, and as noted in Part 1(e) of Form 51-102F1 and Part 1(d) of Form 51-102F2, should exercise their judgement when determining whether information is material.

- **No bright-line test** - There is no uniform quantitative threshold at which a particular type of information becomes material. The materiality of certain information may vary between industries and even between issuers within an industry according to their particular circumstances. An event that is "significant" or "major" for a smaller issuer may not be material to a larger issuer. In our view, issuers should consider both quantitative and qualitative factors in determining materiality.[2]

- **Context -** Materiality depends on the nature and amount of the item judged in the particular circumstances of its omission or misstatement. Some facts are material on their own. When one or more facts do not appear to be material on their own, materiality must be considered in light of all the facts available. An issuer should not "lose sight of the forest for the trees" by assessing the materiality of individual facts piecemeal.[3]

- **Timing -** Determining whether information is material is a dynamic process that depends on the prevailing relevant conditions at the time of reporting. In assessing materiality, an issuer should consider whether the impact of an environmental matter might reasonably be expected to grow over time, in which case early disclosure of the matter might be important to reasonable investors. This would be particularly relevant where the issuer is in an industry with a longer operation or investment cycle or where new technologies are going to be required.[4]

- **Trends, demands, commitments, events and uncertainties -** Generally, the time horizon of a known trend, demand, commitment, event or uncertainty may be relevant to an issuer's assessment of materiality. As with other types of disclosure, materiality in cases of a known environmental trend, demand, commitment, event or uncertainty turns on an analysis of:
  - the probability that the trend, demand, commitment, event or uncertainty will occur, and
  - the anticipated magnitude of its effect.[5]

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[2] This guiding principle has been derived from sources such as subsection 4.2(1) of NP 51-201, OSC Staff Notice 51-716 *Environmental Reporting* (February 27, 2008) and Form 41-101F1 *Information Required in a Prospectus*, General Instruction 3.

[3] This guiding principle has been derived from sources such as paragraphs 94 and 101 of the YBM decision.

[4] This guiding principle has been derived from sources such as the CICA publication, *Building A Better MD&A: Climate Change Disclosures* (November 2008) and the May 2009 exposure draft of the Climate Disclosure Standards Board Reporting Framework.

[5] This guiding principle has been derived from sources such as paragraph 92 of the YBM decision and item 1.2 of Form 51-102F1.

- **Err on side of materiality -** If there is any doubt about whether particular information is material, we encourage issuers to err on the side of materiality and disclose the information.[6]

## 2.2 Environmental risks and related matters

There are five key disclosure requirements in NI 51-102 that relate to environmental matters:

- environmental risks
- trends and uncertainties
- environmental liabilities
- asset retirement obligations, and
- financial and operational effects of environmental protection requirements.

Disclosure about these matters, if material, is important as each provides insight into an issuer's risk profile.

### Environmental risks

Item 5.2 of Form 51-102F2 requires an issuer to disclose risk factors relating to the issuer and its business. The annual information form (AIF) should provide insight into what the issuer believes are the risks relating to the issuer and its business so that investors can assess the effect of these risks on the issuer's operations and/or financial performance. This includes environmental risks and any other matters that would be most likely to influence an investor's decision to purchase the issuer's securities.

**Comments**

An issuer should assess whether, due to the nature of its operations, it needs to address environmental risks in its CD documents. All relevant environmental risks should be considered in deciding what to disclose. Generally, risks that may impact an issuer's business and operations can be divided into five categories: litigation, physical, regulatory, reputation and business model.

As with any other type of disclosure, material risks should be disclosed in a meaningful way, avoiding boilerplate disclosure. An issuer needs to disclose both the risk and the factual basis for it. The issuer should consider the following questions when identifying the material risks it faces.

[6] This guiding principle has been derived from sources such as subsection 4.2(2) of NP 51-201.

| Type of risk | Questions for issuers to consider |
| --- | --- |
| **Litigation risks** | • Is the issuer a party to any environmental litigation? What is the anticipated liability exposure under those claims? What is the likelihood of those claims succeeding?<br><br>• Are there any such legal proceedings known to be contemplated? |
| **Physical risks** | • How is the issuer likely to be affected by physical risks of environmental matters, such as the impacts of industrial contamination, changing weather patterns and water availability?<br><br>• Impacts could include:<br>o property damage<br>o health and safety issues for employees and to members of the public<br>o disruptions to operations, including manufacturing operations or the transport of manufactured products<br>o disruptions to operations of major customers or suppliers<br>o increased insurance claims and liabilities for insurance and reinsurance issuers, and<br>o increased insurance premiums and deductibles, or a decrease in the availability or loss of coverage.<br><br>• What risk management, adaptation and mitigation strategies has the issuer adopted, or is the issuer planning to adopt in the near future? What are the expected costs of those strategies? |
| **Regulatory risks** | • What are the actual and expected impacts of current and likely environmental regulation on the issuer's business and strategy? Regulations may include environmental permits, reporting requirements, carbon pricing systems, carbon limits and trading systems, energy efficiency standards and building codes. They can include both applicable domestic and foreign requirements. The issuer should consider specific risks it faces as a result of environmental legislation or regulation, and avoid generic risk factor disclosure. Where the exact limits or targets are uncertain, an assumption of ranges may be used to determine how certain requirements might reasonably be expected to affect an issuer.<br><br>• What are the applicable and anticipated environmental regulatory requirements? Is the issuer currently in material compliance with those |

| Type of risk | Questions for issuers to consider |
|---|---|
| | requirements? What are the current and anticipated future costs of compliance (and can these costs be broken down by category such as the rehabilitation of contaminated sites or the disposal of hazardous materials)? Where quantification of a risk or cost is uncertain, the disclosure of the factual basis for the risk will help investors in understanding it. |
| **Reputational risks** | • How is the issuer addressing environmental matters? How an issuer addresses environmental matters can have a positive or negative impact on core intangible assets such as brand value, consumer confidence, employee loyalty, ability to attract financial capital and obtaining regulatory approval of projects.<br><br>• What is the impact on the issuer's results and operations arising from its interaction on environmental matters with local communities and other parties affected by the issuer's operations? An issuer's relationship with local communities can affect an issuer's ability to operate and the costs of doing so. |
| **Risks relating to business model** | • Have legal, technological, political and scientific developments regarding environmental matters created new material opportunities or risks for the issuer? For example, possible indirect consequences or opportunities may include:<br>○ changes to production practices<br>○ changes due to emerging technologies<br>○ decreased demand for goods that have a negative impact on the environment or fail to meet customer standards<br>○ increased demand for goods that have less of an impact on the environment than competing products<br>○ changes to tax incentives and subsidies<br>○ increased competition to develop innovative products<br>○ increased demand for generation and transmission of energy from alternative energy sources, and<br>○ decreased demand for services related to carbon-based energy sources, such as drilling services or equipment maintenance services. |

## Trends and uncertainties

As provided in Part 1(a) of Form 51-102F1, MD&A is a narrative explanation, through the eyes of management, of how an issuer performed during the period covered by the financial statements, and of the issuer's financial condition and future prospects. MD&A should, among other things, discuss: (i) material information that may not be fully reflected in the financial statements, such as contingent liabilities or other contractual obligations, and (ii) important trends and risks that have affected the financial statements, and trends and risks that are reasonably likely to affect them in the future.

Item 1.4(g) of Form 51-102F1 requires the issuer to discuss 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 the issuer's future performance.

**Comments**

An issuer should examine to what extent trends and uncertainties regarding environmental matters materially impact its financial performance and future prospects. Disclosure decisions concerning these trends and uncertainties should generally involve:

- consideration of financial, operational and other information known to the issuer
- identification of known trends and uncertainties, and
- an assessment of whether these trends and uncertainties will have, or are reasonably likely to have, a material impact on the issuer's liquidity, capital resources or results of operations.

There is no specified future time period that must be considered in assessing the impact of a known trend or uncertainty that is reasonably likely to occur. The necessary time period will depend on an issuer's particular circumstances and the particular trend or uncertainty under consideration. Furthermore, the time horizon of a known trend or uncertainty may be relevant to an issuer's assessment of its materiality and whether or not the impact is reasonably likely.

An issuer should disclose:

- what has been, and is reasonably likely to be, the impact of environmental trends or uncertainties on revenues, expenditures and cash flows, and
- the impact environmental trends or uncertainties have on its financial condition and liquidity, if any.

| **Examples of how revenues and expenses may be impacted by environmental matters** | |
|---|---|
| **Revenues** | • changes in consumer preference or demand for goods and services due, in whole or in part, to environmental matters or trends<br>• changes in supply chain requirements related to environmental matters<br>• new rules requiring design changes to products<br>• the sale of, or royalties on, innovative technologies<br>• delayed or denied regulatory environmental approvals<br>• the availability and price of emissions credits or offsets |

| Examples of how revenues and expenses may be impacted by environmental matters | |
|---|---|
| **Expenses** | • the need to retrofit existing facilities to address physical, health and safety, or regulatory constraints<br>• research and development activities related to more environmentally efficient operations and processes<br>• purchase and implementation of new information systems to measure and record natural resource impacts (including, for example, greenhouse gas emissions and water and energy usage)<br>• increased or new insurance coverage or premiums<br>• purchases of allowances or offsets to meet regulatory emissions requirements<br>• penalties for failure to meet government-mandated reduction targets<br>• repairing or rebuilding facilities impacted by adverse weather events<br>• investments in productive capacity that embody new "green" or more energy-efficient technologies<br>• investments in projects to generate offsets<br>• financing costs related to expenditures |

## Environmental liabilities

An environmental liability can include a legal obligation to make a future expenditure due to the past or ongoing manufacture; use, release or threatened release of a particular substance, or other activities that adversely impact the environment.

Similarly, a potential environmental liability can include a potential legal obligation to make a future expenditure due to the ongoing or future manufacture; use, release or threatened release of a particular substance, or other activities that adversely impact the environment. An obligation is potential when it depends on future events or when a law or regulation creating the liability is not yet in force. With a potential environmental liability, an issuer may have the opportunity to prevent the liability from occurring by altering its own practices or adopting new practices to avoid or reduce the adverse effect on the environment.

**Examples of environmental liabilities**

- compliance obligations related to laws and regulations or other binding requirements that apply to the manufacture, use, disposal and release of substances, and other activities that may adversely affect the environment
- existing and future site remediation obligations
- obligations to pay civil, administrative and criminal fines and penalties for statutory or regulatory non-compliance
- obligations to compensate private parties for personal injury, property damage and economic loss
- obligations to pay punitive or special damages, or make or maintain specific reserves for those damages
- obligations to pay for natural resource damages

**Comments**

There are two broad categories of environmental liabilities that are to be considered for disclosure: those that are reflected in the issuer's financial statements and those that are not.

***Estimates reflected in financial statements***

Where measurement of an environmental liability involves a critical accounting estimate (as defined in Form 51-102F1), certain disclosure is required. Specifically, item 1.12 of Form 51-102F1 requires management of TSX-listed issuers to include an analysis of critical accounting estimates in their MD&A.

We are of the view that in order for a TSX-listed issuer to meet the requirements of item 1.12 of Form 51-102F1, the issuer should quantify the accounting estimate where quantitative information is reasonably available and would provide material information to investors. Quantitative disclosure could include matters such as the amount claimed by a plaintiff, if publicly disclosed. It should also identify and explain that the estimate was highly uncertain at the time it was made and provide a detailed discussion of the estimate, which may include a sensitivity analysis or disclosure of the upper and lower ends of the range of estimates from which the recorded estimate was selected.

***Potential environmental liabilities not reflected in financial statements***

Part 1(a) of Form 51-102F1 states that an issuer's MD&A should discuss:

- material information that may not be fully reflected in the issuer's financial statements, and
- important trends and risks that have affected the financial statements, and trends and risks that are reasonably likely to affect them in the future.

An issuer may have potential environmental liabilities that are not reflected in the financial statements because their long-term or contingent nature can make them particularly difficult to quantify. In addition, an issuer may have several potential environmental liabilities that have not been recognized because they are not individually material, but it is possible that together they may indicate an underlying risk or trend that could be material to the issuer over the long-term.

We are of the view that a discussion of material potential environmental liabilities should be included in an issuer's CD documents whether or not the liability has been accrued in the financial statements or has been disclosed in the notes to the financial statements. The objective of this disclosure is to help investors understand the nature of potential liabilities, their likely timing and magnitude, and their probability of occurring.

## Asset retirement obligations

An issuer is required to include certain disclosure about asset retirement obligations (AROs) in its financial statements, if applicable.

Item 1.2 of Form 51-102F1 requires an analysis of an issuer's financial condition, results of operations and cash flows, which includes a discussion of commitments, events or uncertainties that are reasonably likely to have an effect on the issuer's business. Item 1.6 of Form 51-102F1, and the corresponding instructions for this item, require TSX-listed issuers to provide a summary, in a table, of contractual obligations for the issuer's balance sheet conditions or income or cash flow, including payments due for each of the next five years and thereafter. Other long-term obligations must be disclosed in the table. In addition, as noted above, item 1.12 of Form 51-102F1 requires an analysis of critical accounting estimates for TSX-listed issuers.

**Comments**

Assets are considered retired if they are sold, abandoned, recycled or disposed of, but do not include assets temporarily removed from service. An ARO is a requirement to perform certain procedures, rather than a promise to pay cash. Legal obligations resulting from the retirement of an asset could include:

- government actions, such as laws or regulations
- written or oral agreements between entities, and
- a promise to a third party that imposes a reasonable expectation of performance.

We are of the view that if an ARO is material to an issuer, in addition to providing the required financial statement disclosure, the issuer should provide supplemental disclosure in its MD&A. Specifically, an issuer should include in its MD&A a comprehensive discussion of commitments, events or uncertainties, including AROs, that are reasonably likely to have an effect on the issuer's business. AROs are generally incurred over more than one reporting period, and information should be provided for all periods that may be materially impacted.

A discussion of AROs should indicate the associated asset to be reclaimed or restored. If environmental remediation costs are applicable, material, and information about these costs is reasonably available, that information should be disclosed. This discussion should set out the costs of compliance with environmental legislation, including:

- the costs associated with the disposal of hazardous materials, and
- the costs associated with the implementation of reclamation technologies.

The discussion should also set out the current and estimated future impact of those costs on the issuer's financial results.

Issuers should recognize that laws differ from one jurisdiction to another, and evolve from time to time within jurisdictions. Issuers should be aware that a new law or regulation could give rise to a new ARO as a result of its past activities.

An issuer should also evaluate whether AROs are material long-term obligations. If so, we are of the view that TSX-listed issuers should include these AROs in the summary contractual obligations table in their MD&A as required under item 1.6 of Form 51-102F1. The payments due for each of the next five years and thereafter in respect of these AROs would need to be quantified in the table.

We are of the view that in most cases AROs are critical accounting estimates, and TSX-listed issuers should include an analysis of these estimates in their MD&A as required by item 1.12 of Form 51-102F1.

## Financial and operational effects of environmental protection requirements

Item 5.1(1)(k) of Form 51-102F2 requires an issuer to disclose the financial and operational effects of environmental protection requirements on the issuer's capital expenditures, earnings and competitive position in the current financial year and the expected effect in future years.

**Comments**

In discussing the financial and operational effects of environmental protection requirements, an issuer should disclose the costs associated with these requirements. This discussion should include:

- a quantification of the costs, where this information is reasonably available and would provide material information to investors
- anticipated trends in respect of these costs, and
- the potential impact of these costs on the issuer's financial and operational results.

For example, with respect to existing provisions relating to new or current environmental laws and regulations, an issuer should disclose material estimated capital expenditures for environmental control facilities for the remainder of the issuer's current fiscal year and its succeeding fiscal year and for such future periods as the issuer may deem material.

## 2.3 Risk oversight and management

Investors have indicated that they would like information to assess whether directors are appropriately focusing on risk management, including environmental risk management. There is no single model for risk oversight and management and the structures and practices that are most appropriate will vary among issuers.

Two key sets of disclosure requirements provide insight into an issuer's oversight and management of environmental risks: environmental policies implemented by the issuer and board governance.

### Environmental policies fundamental to operations

If an issuer has implemented environmental policies that are fundamental to its operations, item 5.1(4) of Form 51-102F2 requires the issuer to describe these policies and the steps it has taken to implement them.

**Comments**

In our view, the term "policy" should be broadly construed. It may include policies for sustainable development, community relations, the use and disposal of toxic or otherwise hazardous materials, prevention of spills, recycling, conservation of water and the reduction of greenhouse gas emissions.

When discussing environmental policies fundamental to its operations, an issuer should evaluate and describe the impact or potential impact these policies may have on its operations. This discussion may include a quantification of the costs associated with these policies, where quantitative information is reasonably available and would provide meaningful information to investors.

The issuer should also explain the purpose of these environmental policies, including the risks the policies are designed to address. This may include a discussion of the policy's effectiveness in meeting that purpose, as well as how the issuer is monitoring and updating the policy.

Environmental policies can be a tool used by issuers to manage risks associated with environmental matters. As noted above, an issuer is required to disclose its environmental risks and disclosure of environmental policies can explain how the issuer is managing those risks. This information may be of interest to investors, who may want to assess whether the risk management strategies employed by the issuer are adequate and appropriate for the types of risk in question and the issuer's risk tolerance.

## Board mandate and committees

Understanding how the board manages risk, including environmental risk, is useful for investors.

**Board mandate**

Section 3.4 of National Policy 58-201 *Corporate Governance Guidelines* states that the board should adopt a written mandate in which it explicitly acknowledges responsibility for, among other things:

- adopting a strategic planning process and approving, on at least an annual basis, a strategic plan which takes into account, among other things, the opportunities and risks of the business, and
- identifying the principal risks of the issuer's business and ensuring the implementation of appropriate systems to manage those risks.

Item 2 of Form 58-101F1 *Corporate Governance Disclosure* (Form 58-101F1) requires TSX-listed issuers to disclose the text of the board's written mandate, or if the board does not have a written mandate, to describe how the board delineates its role and responsibilities.

**Board committees**

There are two relevant disclosure requirements relating to board standing committees and audit committees.

| Board structure | Related disclosure requirement |
|---|---|
| **Board standing committees** | Item 8 of Form 58-101F1 requires TSX-listed issuers to disclose if their boards have standing committees other than the audit, compensation and nominating committees, and if so, to identify the committees and describe their function. These committees may include environmental or health and safety board committees. The mandate of those committees may include responsibility for environmental risk management. |
| **Audit committees** | Item 1 of Form 52-110F1 *Audit Committee Information Required in an AIF* and Form 52-110F2 *Disclosure by Venture Issuers* requires issuers to disclose the text of the audit committee's charter in the AIF. The audit committee may have responsibility for risk management, including environmental risk management. |

**Comments**

Disclosure regarding oversight and management of environmental risks should indicate:

- the board's responsibility for oversight and management of risks, including environmental risks, if applicable, and
- any board and management-level committee to which responsibility for oversight and management of risks, including environmental risks, has been delegated.

The 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.

## 2.4 Impact of adoption of IFRS

Most Canadian publicly accountable enterprises, which include reporting issuers, will be required to use IFRS as issued by the IASB for financial years beginning on or after January 1, 2011 (the changeover).

The changeover to IFRS from existing Canadian GAAP may have a significant impact on financial reporting and other business activities of reporting issuers. IFRS contain some important differences from Canadian GAAP for recognition and measurement of provisions, including environmental provisions. Under IFRS, issuers may be required to accrue more environmental liabilities, at higher amounts, and provide more disclosure regarding these liabilities.

**Key differences under IFRS (as of the date of this notice)**

- **When a provision exists**. A liability exists under Canadian GAAP if there is a legal, equitable or constructive obligation arising as a result of a transaction or event. Under Canadian GAAP, an equitable obligation is a duty based on ethical or moral considerations, and a constructive obligation is one that can be inferred from the facts in a particular situation. Under IFRS, a provision is recorded if there is a present (legal or constructive) obligation as a result of a past event. A constructive obligation arises when an entity creates a valid expectation to other parties that it will discharge certain responsibilities based on an established pattern of past practice, published policies, or has indicated to other parties that it will accept certain responsibilities. Since IFRS provide a more precise definition and specific examples of a constructive obligation, a provision may be recognized at a different point in time depending on past practice of determining when an equitable or contractual obligation exists under Canadian GAAP.

- **Recognition threshold**. Under Canadian GAAP, a contingent liability is recognized when it is likely that a future event will confirm a liability has been incurred and the amount of the loss can be reasonably estimated. Under IFRS, a provision is recognized when there is a present obligation, it is more likely than not that an outflow of resources will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. This could potentially lead to situations where a provision may be recognized under IFRS, but was not previously recognized under Canadian GAAP.

- **Amount to be accrued**. When measuring provisions, Canadian GAAP allows issuers to accrue provisions at the low end of the range of estimates when no outcome is more likely than the others. Under IFRS, the mid-point of the range is used to measure the provision when each outcome in a range is as likely as any other. This could potentially lead to provisions being accrued at higher amounts under IFRS.

- **Note disclosure requirement**. IFRS disclosure requirements of provisions and contingent liabilities will be significant compared to current Canadian GAAP disclosure requirements. Under IFRS, issuers will be required to disclose a provision continuity schedule for each class of provision, disclosing the beginning and ending carrying amounts, additional provisions made in the period, amounts used in the period, unused amounts reversed during the period and changes resulting from the passage of time and any revisions to the discount rate. Issuers will also have to disclose a description of the nature of the obligation, the expected timing of any resulting outflows of economic benefits and an indication of the uncertainties about the amount or timing of those outflows and where necessary, they will have to disclose the major assumptions made concerning future events.

## 2.5 Forward-looking information requirements

Forward-looking information (FLI) is defined in securities legislation to include disclosure regarding possible events, conditions or results of operations that is based on assumptions about future economic conditions and courses of action. It includes future oriented financial information (FOFI) with respect to prospective results of operations, financial position or cash flows that is presented either as a forecast or a projection.

There are disclosure requirements regarding FLI in Part 4A and regarding FOFI and financial outlooks in Part 4B of NI 51-102. These requirements apply to CD documents (subject to certain exceptions as set out in NI 51-102), voluntary reports and websites, but do not apply to oral statements.

**Comments**

Some issuers disclose goals or targets regarding environmental matters in their CD documents, in voluntary reports or on their websites. Examples include:

- The issuer plans to reduce its greenhouse gas emissions by X by 20XX.
- The issuer's goal is to reduce its water usage by x% by 20XX. This reduction may lead to an increase in expenses by $X in the short-term as alternative production methods are developed.

These disclosed targets or goals may or may not be labelled as a "target", "goal", "forecast" or "projection".

In considering whether these disclosed goals and targets can be FLI, the issuer should make the following assessments:

- Is the target or goal "possible" to achieve based on assumptions about future economic conditions and courses of actions?
- If yes, is the target or goal material information?

If the target or goal is material information, the document containing the target or goal must comply with the FLI requirements in Part 4A of NI 51-102. If the disclosed target or goal also is FOFI or a financial outlook, the document must comply with the FOFI requirements in Part 4B of NI 51-102.

Additional guidance regarding these requirements is set out in CSA Staff Notice 51-330 *Guidance Regarding the Application of Forward-Looking Information Requirements under NI 51-102 Continuous Disclosure Obligations*. Issuers and their directors and officers also should refer to policies and other statements regarding defence for misrepresentations in FLI, such as OSC Policy 51-604 *Defence for Misrepresentations in Forward-Looking Information*.

**Impact of adoption of IFRS**

Where these goals and targets are FOFI or financial outlooks, they must be based on the accounting policies that the issuer expects to use to prepare its historical financial statements for the period covered by the FOFI or the financial outlooks. In light of the changeover to IFRS, where an issuer provides FOFI or financial outlooks for periods that extend into 2011 and beyond, the impact of the conversion to IFRS should be considered.

# 3. GOVERNANCE STRUCTURES AROUND ENVIRONMENTAL DISCLOSURE

## 3.1 Review, approval and certification of disclosure

An issuer's environmental disclosure in CD documents is subject to three levels of oversight: review by the audit committee, approval by the board of directors and certification by the CEO and CFO.

| Persons responsible | Oversight function |
|---|---|
| **Audit committee review** | Under NI 52-110, an audit committee is required to review an issuer's financial statements and MD&A before the issuer publicly discloses this information. |
| **Board approval** | Under NI 51-102, the board must approve the annual and interim financial statements and MD&A. The board may delegate approval of interim financial statements and MD&A to its audit committee. |
| **CEO and CFO certification** | NI 52-109 requires certifying officers to certify, among other things, that the issuer's financial statements and the other financial information included in the issuer's MD&A and AIF, if applicable, fairly present, in all material respects, the issuer's financial condition, results of operations and cash flows. |

**Comments**

In our view, meaningful discussion of material environmental matters, where applicable, in an issuer's MD&A and AIF is important to achieve fair presentation of the issuer's financial condition in all material respects and for CEOs and CFOs to be able to certify that the issuer's filings do not contain any misrepresentations.

In fulfilling their oversight functions relating to environmental disclosure, audit committees, boards and certifying officers should consider:

- what environmental matters are reasonably likely to impact the issuer's business and operations in the foreseeable future
- what are the magnitude, sources and nature of the issuer's current and anticipated environmental risks and liabilities
- what has been, and is likely to be, the impact of environmental matters on revenues, expenditures and cash flows
- what impact, if any, could environmental matters have on the issuer's financial condition and liquidity, and
- what assessment has management made regarding the materiality to investors about the information on environmental matters, and are the disclosures made in the financial statements, MD&A and AIF consistent with this assessment.

## 3.2 Controls and procedures

To support the review, approval and certification process, an issuer must have adequate controls and procedures in place to provide rigour around its disclosure of environmental matters. Both the audit committee and certifying officers have responsibilities in establishing these underlying controls and procedures.

| Persons responsible | Controls and procedures |
|---|---|
| **Audit committee responsibilities** | Under NI 52-110, the audit committee must be satisfied that adequate procedures are in place for the review of the issuer's public disclosure of financial information extracted or derived from the issuer's financial statements (other than the issuer's financial statements, MD&A and annual and interim earnings press releases), and must periodically assess the adequacy of those procedures. |
| **Disclosure controls and procedures** | Under NI 52-109, certifying officers of TSX-listed issuers must certify that they are responsible for establishing and maintaining:<br>• disclosure controls and procedures, and<br>• internal control over financial reporting.<br><br>In addition, certifying officers of TSX-listed issuers must certify that they have:<br>• subject to disclosed limitations, designed these controls and procedures, or caused them to be designed, and<br>• evaluated their effectiveness, or caused them to be evaluated under their supervision. |

**Comments**

Directors and certifying officers need to know that management has implemented systems, procedures and controls to gather reliable and timely environmental information for both management analysis and decision-making purposes and disclosure to investors, regulators and other stakeholders. Consideration should also be given to whether the information about environmental matters is subject to the same governance processes and controls and procedures as financial reporting.

The establishment of appropriate data collection and reporting systems, and related controls and procedures, requires a decision on the part of management and dedication of appropriate resources. Some issuers have invested significantly in establishing reliable measurement and reporting systems related to environmental information, but as yet many have not. The reliability of these systems and controls is a necessary underpinning for securities regulatory filings, including CEO and CFO certifications under NI 52-109.

## 3.3 Integration of financial and voluntary reporting

Some issuers choose to provide information regarding environmental matters in voluntary reports[7], in responses to surveys[8] and on their websites. Voluntary reporting can provide important information to investors outside of issuers' CD documents.

**Completeness of CD documents**

Issuers should be aware that some of the information they may be reporting pursuant to these voluntary mechanisms also may be required to be disclosed in their CD documents if that information is material under securities legislation. It is not sufficient for issuers to discuss material environmental matters required by securities legislation solely on their website, or in voluntary reports and responses to surveys.

**Reliability of voluntary reporting**

Issuers should ensure that their websites, voluntary reports and responses to surveys do not contain any misrepresentations. While these documents and other written communications are not required to be filed with the securities regulatory authorities, they may be subject to the provisions under securities legislation regarding FLI and civil liability for secondary market disclosure. In addition, issuers should ensure that the disclosure in these documents and on their websites is consistent with the disclosure in their CD documents.

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[7] Voluntary reports can be prepared in accordance with a number of sustainability reporting frameworks, such as the framework developed by the Global Reporting Initiative (GRI). The GRI framework sets out the principles and indicators that issuers can use to measure and report their economic, environmental and social performance.

[8] One example of a survey is the questionnaire requesting carbon and climate change information circulated by the Carbon Disclosure Project (CDP) to large issuers. CDP is an investor coalition that includes 534 signatory investors with assets under management of US$64 trillion. CDP's request for information covers management's views on the risks and opportunities related to climate change, greenhouse gas emissions accounting, management's strategy to reduce emissions/minimize risk and capitalize on opportunity, and corporate governance with regard to climate change.

### Guidance for board and management on voluntary reports

Boards should ask questions such as:

- What assessment has management made of the materiality to investors of information about environmental matters? Are disclosures made in CD documents consistent with this assessment?
- Is the material information in voluntary reports also disclosed on a timely basis in securities regulatory filings?
- How has management ensured that information reported on corporate websites or in voluntary reports is consistent with that provided in their CD documents?
- Does any FLI in the voluntary reports comply with FLI requirements under securities legislation?

## 4. CONCLUSION

Issuers should consider the guidance in this notice when preparing their CD documents to ensure that their disclosure of environmental matters complies with securities legislation and provides investors with meaningful information for making investment decisions. We will continue to monitor disclosure of environmental matters as part of our ongoing CD review program.

Questions regarding this notice may be referred to:


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# APPENDIX – EXAMPLES OF ENTITY-SPECIFIC DISCLOSURE

## Introduction

To assist issuers in meeting the existing disclosure requirements relating to environmental matters, we have provided some examples of entity-specific disclosure. The examples are for illustration purposes only and are based on assumed facts. They should not be viewed as an exhaustive list of environmental matters required to be disclosed, nor are they applicable to all issuers or comprehensive in all cases. The examples assume that the information disclosed is material in the particular case.

Issuers are reminded that their disclosure should be tailored to their particular circumstances, and that their CD documents must comply with all applicable disclosure requirements.

The examples of entity-specific disclosure are set out under the following headings:

- environmental risks
- trends and uncertainties
- environmental liabilities
- asset retirement obligations
- financial and operational effects of environmental protection requirements
- environmental policies fundamental to operations, and
- board mandate and committees.

### Forward-looking information

Some of the examples below contain forward-looking information, future oriented financial information and financial outlooks. Refer to section 2.5 of the notice and CSA Staff Notice 51-330 *Guidance Regarding the Application of Forward-Looking Information Requirements under NI 51-102 Continuous Disclosure Obligations* for guidance on the applicable disclosure requirements.

## Environmental risks

**Example 1 – Litigation risk**

The company is currently subject to litigation regarding environmental matters, and may be involved in disputes regarding environmental matters which may result in litigation. The results of litigation cannot be predicted. If the company is not able to resolve the litigation and disputes favourably, there may be a material adverse impact on its financial condition, cash flows and results of operations.

Below is a summary of potentially material environmental litigation to which the company is a party.

**[Insert name of advanced civil litigation matter]**

As noted below, the company has recorded a provision in respect of [insert name of advanced litigation]. Please see the discussion under x for more information [see Example 1 for Environmental Liabilities].

**[Insert name of early stage civil litigation matter]**

The company has been named as a defendant in an action filed in Province X, where the plaintiffs have alleged that the company's operations have contaminated the local water supply, resulting in health and economic damages to local fisheries. The statement of claim seeks damages in the amount of $x and punitive damages in the amount of $x. The company filed a statement of defence on x, 20xx. It believes this action lacks legal or factual merit and intends to vigorously defend this action. No amounts have been accrued in the financial statements for any potential loss under this action.

No trial date has been set at this time. While the company believes the action is without merit, an adverse outcome could result in payment of significant damages or penalties and significant capital expenditures which cannot be determined at this time. Defence costs associated with the action could also be significant, and may not be completely covered by the company's insurance. These payments or expenditures could significantly affect the company's financial condition, cash flows and results of operations.

**[Insert name of regulatory proceeding]**

On x, 20xx, the government in Province X charged the company under Act X, which includes the following prohibition: X. The charge was laid under section x of Act X. The Crown alleged that the company's operations damaged the environmental habitat of wildlife.

The trial commenced on x and is ongoing. The company has pleaded not guilty and plans to continue to vigorously defend the action over the course of the trial, which is scheduled to conclude in x, 20xx. At this stage, the company continues to believe that it is not in violation of the requirements of Act X.

The charges brought could have significant consequences for the company because it questions the legality of certain aspects of the company's operations, and may expose the company to civil lawsuits and uncertainty regarding its operations.

At this stage, the likelihood of a guilty verdict and the materiality of a conviction are not reasonably determinable. As a result, no amounts have been accrued in the company's financial statements in respect of this action. If the company is found guilty, the penalties range from $x to $x under Act X.

Except as noted above, the issuer is not aware of any environmental litigation outstanding, threatened or pending against it as of the date hereof that would be material to its financial condition, cash flows and results of operations.

**Example 2 – Physical risk**

The company's supply chain is based on agricultural commodities produced in Countries X, Y and Z. In particular, product X is a key component of the company's business. Sales of product X represent x% of the company's total revenues in its most recently completed financial year. Forty-five percent of the company's supply of product X is grown in Country X.

Country X is highly susceptible to hurricanes and other extreme weather events. In x of the last x years, Country X has experienced hurricanes that have resulted in significant damages to its crops of product x.

Extreme weather events, such as hurricanes, can impact the overall availability and quality of product X. This in turn may impact:

- the company's ability to buy sufficient quantities of product X, or
- the price the company pays for product X.

Any interruptions to the company's supply of product X or changes in the price that the company pays for product X could lower the company's revenues, increase its operating costs and impact its overall financial results. For example, the company currently estimates that a 1% increase in the price of product X will lead to an increase in the company's costs by $x. During 20xx, the company's costs associated with product X increased by x% in the x months following Hurricane X in Country X. This led to a corresponding decrease in the company's revenues, as it was not able to fully recover the increase in its costs through higher sales revenues.

**Example 3 – Regulatory risk**

The company is subject to a variety of environmental and land use laws and regulations in Provinces X and Y, as well as the laws and regulations of the Canadian federal government. These laws and regulations mandate, among other things:

- the maintenance of air and water quality standards
- land reclamation
- regulation of greenhouse gas (GHG) emissions, and
- energy efficiency standards.

The laws and regulations require the company to obtain various environmental registrations, licenses, permits, inspections and other approvals in order to operate. They impose certain standards and controls on the company's activities.

The company operates x number of manufacturing facilities in Provinces X and Y. X per cent of these facilities emit more than 25,000 tonnes of carbon, and x% of these facilities emit more than 50,000 tonnes of carbon. The following is a discussion of GHG regulation that has, or the company anticipates will have, a significant impact on its operations.

**Current regulation in Province X**

In Province X, the government has announced Act X, which imposes GHG emissions limits on facilities emitting greater than x tonnes of carbon dioxide equivalent per year. Act X calls for emission reductions of x% beginning in 20xx. The company must file compliance reports that describe the actions the company took during the year to meet its emissions target for the year. To date, the company is in compliance with all GHG emission reductions required under Act X and compliance with these requirements has not had a material effect on the company's financial condition, cash flows and results of operations. The company anticipates that the future costs associated with compliance with Act X to be incurred through 20xx will be in the range of $x to $x, which includes $x spent to date. In planning its activities, the company has assumed a carbon price of $x, and has conducted scenario analysis based on carbon prices within the range of $x to $x.

**Future regulation contemplated**

In addition to the requirements of Act X, the company's facilities and operations will be subject to future changes to environmental legislation at the provincial and federal levels. The company expects the imposition of additional regulations, including X legislation for air pollution and further GHG regulations. The following discussion is a summary of anticipated future developments to environmental legislation that are expected to have a significant impact on the company.

In 20xx, Province Y joined the X Climate Initiative, committing to implement a GHG emissions or cap-and-trade regime by 20xx. In 20xx, Regulation Y was enacted under the Environmental Act Y in Province Y. Regulation Y requires facilities that emit x tonnes of carbon dioxide equivalent or more per year to monitor, measure and report emissions on an annual basis. The purpose of Regulation Y is to support the implementation in Province Y of a cap-and-trade system for emissions trading. Province Y will continue to work with the Canadian federal government and other members of the X Climate Initiative to harmonize emissions reporting requirements. In the event that Province Y establishes a cap-and-trade system, the company may need to purchase GHG allowances via auction to offset the amount of GHG they will emit into the atmosphere. The company currently does not believe that its operations will be adversely affected by Regulation Y.

The company is currently developing and implementing GHG emissions reduction programs to both reduce GHG emissions and generate GHG emissions reduction credits or offsets for use by the company. The company is committed to reducing GHG emissions within a range of x% to x% from 20xx to 20xx.[1] There is no guarantee that the company will be successful in developing and implementing these programs, and it is too early to predict the exact costs of compliance.

There is uncertainty around the impact of environmental laws and regulations, including those currently in force and proposed laws and regulations. It is not possible to predict the outcome and nature of certain of these requirements on the company and its business at the current time. However, failure to comply with current and proposed regulations can have a material adverse impact on the company's business and results of operations by substantially increasing its capital expenditures and compliance costs, its ability to meet its financial obligations, including debt payments and the payment of dividends. It may also lead to the modification or cancellation of operating licenses and permits, penalties and other corrective actions.

[1] This target constitutes forward-looking information. See the introduction above for guidance on the applicable disclosure requirements.

**Example 4 – Regulatory risk**

The company manufactures chemical x at Facility X in Country X. Chemical x is used in the production of chemical y, which is manufactured at the company's Facility Y in Country Y. The company plans to expand its production of chemical y, which requires an increase in the production of chemical x and an expansion to Facility X and Facility Y. Pending regulatory approval, the company expects the expansions to Facility X and Facility Y to become operational in 20xx. The increased production of chemical y is expected to generate earnings before interest, taxes, depreciation and amortization of approximately $x to $x in the first fiscal year that the expansions to Facility X and Facility Y become operational.

The company has filed the necessary regulatory applications in Countries X and Y for approval to construct and operate the expansions to Facility X and Facility Y. In January 20xx, the company was granted approval from Authority X in Country X to construct and operate the expansion to Facility X. The company expects a decision on its application for the necessary permits from Authority Y in Country Y regarding the expansion of Facility Y in the next x months.

There is a significant risk that regulatory approval for the extension of Facility Y will not be granted or will be significantly delayed by Authority Y in Country Y. In recent months, environmental groups and prominent politicians in Country Y have publicly opposed the expansion of Facility Y due to its location beside public water sources and have called on Authority Y and the government of Country Y to re-examine the potential impact of chemical production on the environment generally. A number of environmental, public health and indigenous activists, as well as landowners whose property are located adjacent to the water sources, have organized large protests outside government offices in Country Y. If regulatory approval for the expansion of Facility Y is not granted by Authority Y, the company will not be able to increase the total commercial capacity of Facility Y or recover the capital cost of the extensions to Facility X and Facility Y ($x has been spent to date), which could have a material adverse impact on the financial results of the company.

**Example 5 – Reputational risk**

The company faces strong competition in the retail industry. The industry is driven primarily by consumer demand, which is impacted by matters such as economic trends, changing demographics and environmental awareness. A recent consumer trend that is dominating the industry is an increasing demand that retailers source products in a way that demonstrates care for the environment, and otherwise follow environmentally responsible business practices.

The company endeavours to be environmentally responsible and recognizes that the competitive pressures for economic growth and cost efficiency must be integrated with sound sustainability management, including environmental stewardship. The company has adopted sourcing and other business practices to address the environmental concerns of its customers. Despite these efforts, evolving customer concerns could negatively affect the company's reputation and financial performance.

The company's brand image is driven by the development and delivery of high quality products while maintaining the highest level of environmental responsibility. Claims of environmentally irresponsible practices could harm the reputation of the company.

The company establishes and monitors compliance with operating guidelines both internally and for the company's independent suppliers. These guidelines require environmentally responsible business practices, including x, x and x. Although the company requires its suppliers to certify compliance with these guidelines and periodically requests documentation in support of the certificates, there is no guarantee that these suppliers will not take actions that hurt the company's reputation, as they are independent third parties that the company does not control. However, if there is a lack of apparent compliance, it may lead the company to search for alternative suppliers. This may have an adverse effect on the company's financial results, by increasing costs, potentially causing shortages in products, delays in delivery or other disruptions in operations.

Adverse publicity resulting from actual or perceived violations of environmental laws and regulations, from business practices considered environmentally irresponsible, or from damage to the environmental reputation of the company's suppliers, may weaken the value of the company's brand image, negatively impact customer attitudes and decrease demand for the company's products. This may lead to a decrease in results of operations and the company's share price. These impacts may occur even if the allegations are not directed against the company or are not valid, and even if the company is not found liable. Other companies in the industry have encountered these issues, resulting in reduced demand for, or boycotts of, their products.

**Example 6 – Risks relating to business model**

Wind energy products are at an early stage of market acceptance and have been developed through technologies that may not be proven or whose commercial application is limited. The company's products may not gain sufficient commercial acceptance or success for the company's business plan to succeed. The alternative power market is also highly competitive and characterized by rapidly evolving technology and changes in pricing strategy. If the company fails to continually improve and refine its technology, the company's products could become uncompetitive or obsolete. There is also the risk that the company's competitors could attempt to reverse engineer or copy the company's product, which could draw business away from the company.

The company's business is dependant on the availability of government subsidies and incentives to support the development of the wind energy market. The cost of wind, solar and other alternative power currently exceeds retail electric rates in many jurisdictions. As a result, governments in Countries X, Y and Z have provided subsidies and incentives in the form of rebates, tax credits and other incentives to end-users, distributors, system integrators and manufacturers of alternative power products to promote the use of renewable energy sources. There is significant uncertainty about the extent to which such favourable government subsidies and incentives will be available to the company in the future. The reduction, expiration or elimination of these government subsidies and incentives could result in lower revenues and greater expenses for the company, which could have a material adverse effect on the company's business.

The company's electricity generation levels are directly dependent on wind intensity and duration, both of which vary relative to facility location and time of year. Due to climate change, wind regimes may change within regions where turbines are located, which in the longer term could affect changes in electricity generation capacity. This may lead to volatility in production levels and profitability.

Demand for wind energy technology may be affected by the following factors:

- the performance, reliability and cost-effectiveness of wind energy technology compared to conventional energy sources and products
- the success of other renewable energy generation technologies (e.g. geothermal and solar)
- fluctuations in capital expenditures by utilities and independent power producers
- the development of new and profitable applications requiring the remote electric power provided by wind energy systems, and
- overall growth in the renewable energy market.

## Trends and uncertainties

**Example**

The company is unable to predict market conditions and the fares the company may be able to charge… Factors that may reduce demand for air travel include concerns about the environmental impacts of air travel and a growing movement towards "green" travel initiatives where consumers reduce their air travel.

The company operates in various jurisdictions where there are legislative initiatives relating to greenhouse gas (GHG) emissions being considered or adopted. Jurisdictions that have proposed to regulate GHG emissions include Countries X, Y and Z. Although these jurisdictions have not yet published details of their proposed regulations or their compliance mechanisms, the company will likely face increased capital and operating costs to comply with these regulations and these costs could be material. Notwithstanding the current regulatory uncertainty in these jurisdictions, the company has assumed a carbon price of $x, and has conducted scenario analysis based on carbon prices within the range of $x to $x. The company has incorporated a range of potential carbon prices and regulatory outcomes into future capital planning.

While there is no GHG emissions legislation in place in Country X, the company is a signatory to a voluntary agreement with the government of Country X to reduce GHG emissions. Under the voluntary agreement, the company is committed to a fuel efficiency improvement target of x% from 19xx levels by 20xx. The company has surpassed this fuel efficiency target and in 20xx, set its own new target to improve the fuel efficiency of its fleet operations by a further x% from 20xx to 20xx.[1] In 20xx, this program reduced emission by x tonnes compared to what the company would have otherwise consumed.

[1] This target constitutes forward-looking information. See the introduction above for guidance on the applicable disclosure requirements.

## Environmental liabilities

**Example 1 – Environmental estimates reflected in financial statements**

The company is subject to environmental laws and regulations that affect aspects of the company's past, present and future operations, including air emissions, water quality, wastewater discharges and the generation, transport and disposal of waste and hazardous substances. The company's activities have the potential to impair natural habitat, damage plant and wildlife, or cause contamination to land or water that may require remediation under applicable laws and regulations. These laws and regulations require the company to obtain and comply with a variety of environmental registrations, licenses, permits and other approvals. Both public officials and private individuals may seek to enforce environmental laws and regulations against the company.

Environmental liabilities are recorded when it is considered likely that a liability has been incurred at the date of the financial statements and the amount of the liability can be reasonably estimated. As at December 31, 20xx, the company had a provision of $x million for environmental, remedial and similar obligations. The primary component of this provision was an amount for a legal action brought in Country X against the company and other defendants for damage to the environment. The plaintiffs, who are residents of lands surrounding one of the company's former facilities, are seeking damages of $x million for wrongful death claims and to fund environmental remediation of the alleged environmental harm.

An expert appointed by the court in Country X to assess and determine the cause of the environmental damage released a report recommending that the court assess damages of $x million against the company. The court is expected to render a judgment within the next x months. The company intends to vigorously defend any attempted imposition of liability.

In estimating the amount to be included in the provision for the legal action in Country X, the company conducted an assessment of the possible outcomes and range of loss, based on considerations such as the company's past experiences with environmental lawsuits and the recommendations of legal counsel. The estimate is based on the following assumptions:

- the court will find against the issuer
- the court will award damages of x% of the total amount claimed
- the court will not award punitive damages, and
- the proportionate liability of the company is x% of the claim.

The company also estimated the costs of remediation based on an assessment of the existing remediation technology available. However, although the company expects to incur a liability of $x million (as reflected in the line item "environmental, remedial and similar obligations" in the 20xx financial statements), the actual liability remains highly uncertain and can vary from the company's estimate due to factors such as:

- differing interpretations of laws, opinions on culpability and assessments on the amount of damages
- the length and outcome of the appeal process (in the event of an adverse judgment)
- the unknown timing and extent of the remediation and other corrective actions that may be required, and
- the determination of the company's liability in proportion to other responsible parties and the extent to which such costs are recoverable from third parties.

The estimated liability will be regularly adjusted as the case proceeds. As a result of recommendations from legal counsel, the estimated amount of the liability has increased by $x million since the last financial statements were issued.

**Example 2 – Potential environmental liabilities not reflected in financial statements**

The company may be subject to remedial environmental and litigation costs resulting from potential unknown and unforeseeable environmental impacts arising from the company's operations. While these costs have not been material to the company in the past, there is no guarantee that this will continue to be the case in the future as the company carries on with the development of the complex technologies necessary to differentiate the company from its competitors and meet market demand.

Given the nature of the company's business, there are inherent risks of oil spills occurring at the company's drilling sites. Large spills of oil and oil products can result in significant clean-up costs. Oil spills can occur from operational issues, such as operational failure, accidents and deterioration and malfunctioning of equipment. In certain countries where the company operates, oil spills can also occur as a result of sabotage and damage to the pipelines. If the company experiences operational spills, this may impact the company's ability to maintain its licence to operate and may harm its reputation. In 20xx, the number of spills "increased/decreased" by x%, totalling a volume of x tonnes (compared to x spills totaling x tonnes in the previous year of 20xx).

Although unlikely and not estimable or quantifiable at this time, if an oil spill occurred at the company's offshore drilling rig X, potential impacts could include employee injuries and loss of life, harm to the surrounding environment and wildlife, and disruption or cessation of the company's activities. These may lead to significant potential environmental liabilities, such as clean-up and litigation costs, which may materially affect the company's financial condition, cash flows and results of operations. Depending on the cause and severity of the oil spill, the company's reputation may also be adversely affected, which could limit the company's ability to obtain permits and affect its future operations.

To prevent and/or mitigate potential environmental liabilities from occurring, the company has policies and procedures designed to prevent and contain oil spills. The company works to minimize spills through a program of well designed facilities that are safely operated, effective operations integrity management, continuous employee training, regular upgrades to facilities and equipment and implementation of a comprehensive inspection and surveillance system. The company also has a rigorously tested oil spill emergency response capability. The company plans, prepares and practices its emergency response to help effectively mitigate the environmental, operational and financial consequences of an oil spill.

## Asset retirement obligations

**Example**

Asset retirement obligations (AROs) result from the acquisition, development, construction and ordinary operation of mining property, plant and equipment, and from environmental regulations set by regulatory authorities. AROs include costs related to tailings pond, tailings dam, heaps and heap leach pad reclamation and/or closure (i.e. ongoing monitoring of ground water quality; tailings dam and/or leach pad integrity; heap washing; closing of portals, shafts and tunnels, recontouring, revegetation etc.), and removal and/or demolition of mine and processing equipment (i.e. crushers, conveyors, mills, flotation tanks etc.), buildings and other infrastructure.

The company estimates the fair value of AROs to range between $x million and $x million. As at December 31, 20xx, the company recognized a liability of $x million for AROs. The fair value of AROs are estimated using a present value technique and is based on existing laws, contracts or other policies and current technology and conditions. The estimates or assumptions required to calculate the fair value of AROs include, among other items, abandonment and reclamation amounts, inflation rates, credit-adjusted risk free rates and timing of retirement of assets. The following significant assumptions were made for the purpose of estimating AROs:

| Assumption | 20xx | 20xx* |
|---|---|---|
| Undiscounted abandonment costs ($$$) | x | x |
| Credit adjusted risk free rate | x | x |
| Inflation rate | x | x |
| Average years to reclamation | x | x |

* Year-on-year comparison

AROs are considered critical accounting estimates for the company. There are significant uncertainties related to AROs and the impact on the financial statements could be material. The eventual timing of and costs for these AROs could differ from current estimates. The main factors that can cause expected cash flows to change are:

- changes to laws and legislation
- construction of new facilities
- changes in the quality of water that affect the extent of water treatment required
- change in the reserve estimate and the resulting amendment to the life of the mine, and
- changes in technology.

In general, as the life of a mine ends, the expected cash flows become more reliable but the estimate of an ARO at the beginning of the mine life, is primarily more subjective. Any future changes to the estimated or actual costs for reclamation and mine closure and for removal and/or demolition of mine and processing equipment, buildings and other infrastructure, could have a material and adverse effect on the company's future operating results.

The company does not strictly reserve cash or assets for the purpose of settling AROs. As a result, at the time of closure and restoration of the mine sites, the company will have a significant cash outlay that may affect its ability to satisfy its debt and other contractual obligations. The costs associated with the AROs may be significant and the company may not have sufficient or available resources to fund the costs. If the company is unable to make these payments, regulatory authorities may take further corrective action with respect to these obligations, including issuing clean-up orders and laying charges. Currently the company has secured its obligations under its AROs and obtained letters of credit.

The following is a breakdown of the ARO by category:

| **Category** | **20xx** | **20xx*** |
|---|---|---|
| Open Mines | x | x |
| Closed Mines | x | x |
| Development Projects | x | x |
| **Total AROs** | x | x |

* Year-on-year comparison

The following is a breakdown of ARO by significant mine/property:

| **Mine** | **20xx** | **20xx*** |
|---|---|---|
| Mine 1 | x | x |
| Mine 2 | x | x |
| Mine 3 | x | x |
| Other** | x | x |
| **Total AROs** | x | x |

* Year-on-year comparison

** Aggregate of remaining mines determined to be insignificant on an individual basis

*Summary Contractual Obligations Table*

Provide asset retirement obligations for the current year and the following 5 years and thereafter.

| | **2010** | **2011** | **2012** | **2013** | **2014** | **thereafter** | **Total** |
|---|---|---|---|---|---|---|---|
| **AROs** | x | x | x | x | x | x | x |

AROs – Amounts presented in the table represent the undiscounted future payments for the expected cost of asset retirement obligations.

## Financial and operational effects of environmental protection requirements

**Example 1**

In Country X where the company operates, the company is currently obligated to comply with environmental protection Regulation X relating to water pollution and conservation. To comply with Regulation X, the company began construction of a new water treatment plant in 20xx to collect and treat contaminated water from its facilities in Country X. In 20xx, the company's aggregate expenditures (both capital and operating) to construct and maintain the new water treatment plant were $x million, compared to $x million in 20xx. The company estimates that total environmental expenditures in Country X for the next year will be approximately $x million in capital expenditures and $x in operating expenditures. If environmental protection regulations relating to water pollution and conservation in Country X change, or the enforcement of Regulation X becomes more rigorous, the company may be required to incur additional, significant capital and operating expenditures to comply, which could have a material adverse effect on the company's financial condition and competitive position.

**Example 2**

In Province X where the company has x facilities, contaminated sites legislation came into effect in 20xx. The legislation specifies the circumstances in which a "site profile" must be prepared in respect of any property that has been used for certain industrial or commercial purposes. A particular site is determined to be a "contaminated site" if concentrations of certain substances in soil and groundwater exceed prescribed levels. If a site is determined to be contaminated, remediation will normally be required under government supervision. The company is not aware of any of its sites being considered contaminated under the legislation, and compliance with the legislation has not resulted in any material costs to the company in 20xx. However, there is no guarantee that material costs will not be incurred in the future due to the discovery of unknown conditions or changes in enforcement policies.

## Environmental policies fundamental to operations

**Example**

The company established an environmental policy (the Policy) in 20xx. The Policy is updated periodically and was last updated in 20xx. The Policy affirms the company's commitment to environmental protection, which the company believes is an integral part of doing business and needs to be managed systemically under a continuous improvement process. The Policy contains principles which range from exercising due diligence to meet or exceed requirements under applicable environmental legislation, to preventing pollution and promoting initiatives that minimize resource use and waste generation. The company has instructed its subsidiaries to support these principles, and has established a management-level committee, Committee X, to oversee the implementation of the Policy.

In 20xx, the company spent $x million on environmental policy compliance (x% of this was expensed and x% was for capital expenditures). For the next fiscal year, the company has budgeted $x million (x% for expenses and x% for capital expenditures) to seek to ensure that the Policy is applied properly and its environmental risks are minimized.

Consistent with the Policy, the company regularly procures, installs and operates pollution control devices, including wastewater treatment plants, groundwater monitoring devices and air strippers or separators.

The company monitors its operations to seek to ensure that it complies with all applicable environmental requirements and standards, and takes action to prevent and correct problems if needed. The company has had an environmental management system in place since 20xx that:

- provides early warning of potential problems
- identifies management and cost-saving opportunities
- establishes a course of action, and
- ensures ongoing improvement through regular monitoring and reporting.

The company also analyzes changes to environmental laws and regulations on a regular basis. In 20xx, the company obtained the ISO 140001 certification for its environmental management system.

## Board mandate and committees

**Example**

The Audit Committee's responsibilities include approving a formalized and integrated enterprise risk management process that is developed by senior management and, as appropriate, the company's X Committee (e.g. Environmental, Health and Safety Committee), to monitor, manage and report risks and opportunities, including those relating to environmental matters, litigation and regulation. At least semi-annually, the Audit Committee is responsible for obtaining from senior management and, as appropriate, the X Committee, a report specifying the management of the company's principal risks, including compliance with the company's enterprise risk management policy and other policies used to manage risks.

The purpose of the X Committee is to:

- review the company's environmental, health, safety and sustainable development (EHSSD) policies and programs
- assess the performance and effectiveness of the company's EHSSD policies and programs
- monitor current and future regulatory issues relating to EHSSD matters
- review quarterly management stewardship reports
- examine the findings of significant external and internal EHSSD investigations, assessments, reviews and audits
- review the company's public sustainability report, which includes reporting on the company's EHSSD progress, plans and performance objectives, and
- make recommendations, where appropriate, on significant matters relating to EHSSD matters to the Board.

The X Committee holds regular *in camera* sessions where it meets in the absence of management.