

Climate Change & Board Governance

MEARIE CONFERENCE 2018
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CPA CANADA



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About CPA Canada

- National professional accounting body in Canada
- Over 210,000 members
- Involved in sustainability initiatives for over 25 years



Agenda

- Climate Change Trends & Developments
- Climate Change Risks & Opportunities for Ontario's Electricity Sector
- Climate Change Considerations for Boards of Directors
- Q&A

Climate Change Trends & Developments

Scientific Context

- Need to limit global temperature rise to 2 degrees Celsius beyond pre-industrial levels
 - Peak global GHG emissions by 2020
- Experiencing 1 degree of global temperature rise
 - Canada = Double global average
- Experiencing record extreme weather events
 - Examples: Flooding in Ontario/Quebec, Hurricanes in Texas, Florida, Caribbean

Responses to Climate Change

Mitigation

- Taking action to slow climate change by reducing greenhouse gas emissions
- For organizations, this means taking actions to reduce the greenhouse gas emissions attributable to operations, products and services

Adaptation

- Taking action to respond to the effects of changes in climate
- For organizations, this means taking actions to minimize and respond to the effects of climate change on the organization

Source: CPA Canada Climate Change Briefing for Directors (2017)

www.cpacanada.ca/climatechangebriefing

Key Policy & Regulatory Developments

International:

- World Economic Forum – Global Risks Report
- Paris Agreement – 195 countries
- UN Sustainable Development Goals – Climate Action
- Financial Stability Board – Task Force on Climate-related Financial Disclosure (TCFD)

Canada:

- Pan-Canadian Framework on Climate Change
- National Carbon Price
- GHG Emissions Reporting & Regulation
- Coal Phase-Out

Evolving Climate Disclosure Expectations

- TCFD Final Recommendations Report – June 2017
 - G20 Endorsement
 - Statements of Support
- CSA Climate Disclosure Review – April 2018
- Alignment of Reporting Frameworks – CDP, CDSB, GRI, SASB
- UNEP Finance Initiative – Pilot Project – TD, RBC

Overview of TCFD Recommendations

Core Elements of Recommended Climate-Related Financial Disclosures



Governance

The organization's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

Risk Management

The processes used by the organization to identify, assess, and manage climate-related risks

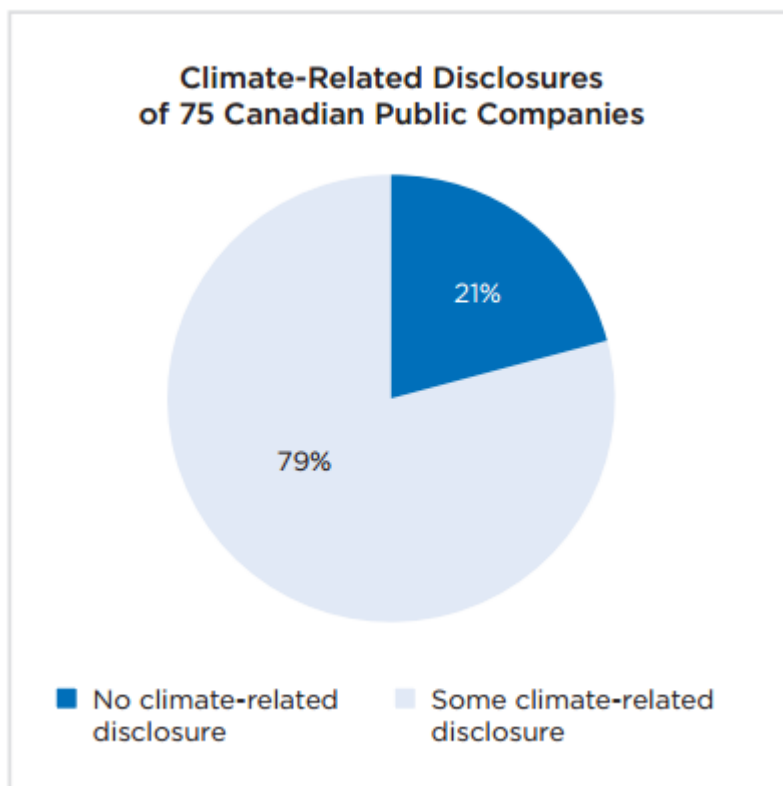
Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

Source: TCFD Final Report (June 2017)

<https://www.fsb-tcf.org/publications/final-recommendations-report/>

CPA Canada 2017 Climate Disclosure Study: Key Findings



The majority of companies are making climate-related disclosures, but the **nature and extent varies**:

- Climate-related disclosures did not provide sufficient context
- Disclosures were not comparable across or within industries
- Inconsistent use of terminology
- Users are challenged to locate relevant information

Climate Change Risks & Opportunities for Ontario's Electricity Sector

Context: Ontario Electricity Sector

- Approx. 70 LDCs in Ontario (EDA – March 2017)
 - Expansive geographical reach
 - Fundamental to thriving economy
- Infrastructure Assets
 - Generation: Centralized and distributed energy
 - Distribution & Transmission: Poles, wires, transformers
- Regulated by OEB
 - Utility performance/monitoring → Performance Scorecards (impacts rate-setting)
- Financial reporting – IFRS

Governance, Policy & Regulation

- Ontario Energy Board:
 - Independent energy regulator – oversight of rules, rates, reporting, performance measurement
- Province of Ontario:
 - Impacted by policy decisions by provincial government
- Unique considerations for electric utilities in Ontario due to economic implications of regulatory structures:
 - Rate-setting
 - Capital expenditures
 - Performance standards

Predicted Climate Change Impacts in Ontario

- Increased average temperatures and heat waves
 - Impacts to air quality and human health
- Increased frequency and severity of extreme weather events
 - Drought
 - Storms
 - Flooding
 - Fires

Source: Environmental Commissioner of Ontario

<http://docs.assets.eco.on.ca/reports/climate-change/2017/From-Plan-to-Progress-Summary.pdf>

Ontario's Climate Change Action Plan

- Cap and Trade – impacts natural gas utilities
- Proceeds of cap and trade used for:
 - Accelerated deployment of distributed energy
 - Increasing adoption of electric vehicles
 - Increased investments in energy efficiency

Source: Ontario Climate Change Action Plan

<https://www.ontario.ca/page/climate-change-action-plan>

Relevant Climate Change Risks

Climate-Related Risk	Possible Impacts to Electric Utilities in Ontario
Increasing frequency and severity of extreme weather	<p>Impacts operating and maintenance costs → Capital assets (useful life)</p> <p>Impacts insurance costs → Uninsured damages and rising premiums due to insured losses</p>
Weather variability and seasonality	<p>Impacts revenues → Supply and demand for electricity</p> <p>Impacts line-losses → Hotter air temperatures increase losses on electric power lines</p>
Outages due to equipment failure, blackouts or constraints on the transmission system	<p>Impacts revenues → Delivery of electricity</p> <p>Impacts reliability → OEB scorecard metrics and reputation</p> <p>Impacts health and safety → Field workers</p>

Relevant Climate Change Risks (Cont'd)

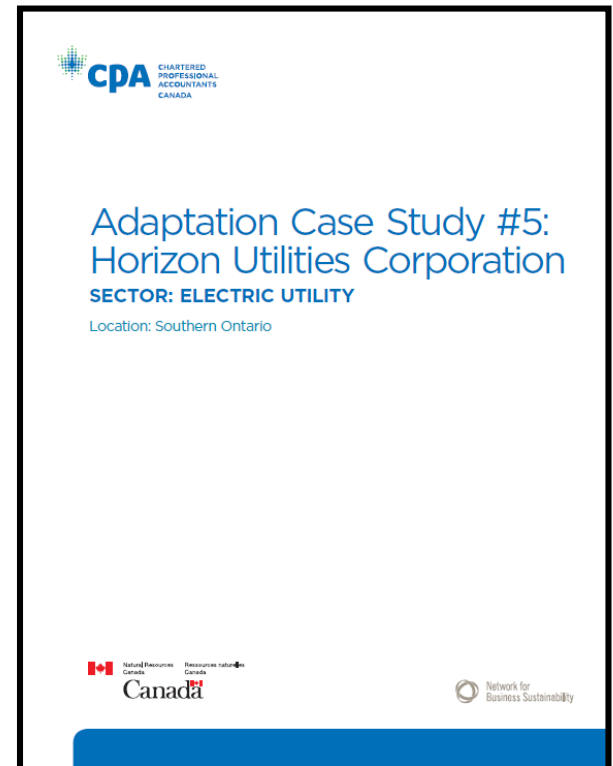
Climate-Related Risk	Possible Impacts to Electric Utilities in Ontario
Accelerated deployment of renewable and distributed energy	<p>Impacts revenues → Decreased demand for centralized electricity transmission and distribution</p> <p>Impacts demand forecasts → Unpredictability for long-term system planning</p>
Increased investments in energy efficiency	<p>Impacts revenues → Decreased demand for electricity</p> <p>Impacts demand forecasts → Unpredictability for long-term system planning</p>
Cap and Trade compliance (natural gas utilities)	Impacts costs → Pass through to rate payers

Relevant Climate Change Opportunities

Climate-Related Opportunity	Possible Impacts to Electric Utilities in Ontario
Proliferation of electric vehicles and electric-powered mass transit	<p>Impacts revenues → Increased electricity demand</p> <p>Impacts demand forecasts → Long-term system planning</p>
Enhance resilience of electric utility infrastructure	Impacts new and existing assets → Systematic incorporation of adaptation considerations into investments to build resilience to predicted climate impacts
Enhanced reputation via response to extreme weather events	Impacts reliability metrics → Improvements to average number of hours and average number of times service is interrupted
Accelerated deployment of renewable and distributed energy	Impacts system resiliency and efficiency → Integrate and optimize renewables and distributed energy to improve planning and reliability

Case Study: Horizon Utilities

- One of the largest municipally owned electricity distribution companies in Ontario
- **242,000 residential, commercial and industrial customers** – Hamilton and St. Catharines
- **\$582 million in total assets**
- First company in Canada to earn Sustainable Electricity Company designation from CEA
- Physical risks of climate change:
 - Temperature shifts
 - More intense storms



Case Study: Horizon Utilities

- Recognized early sustainable development is **good for customers and business**
- 2008: Enterprise Risk Management system
- 2012: Vulnerability Assessment and Initial Adaptation Strategy
- 2014: Adaptation Plan
- CPAs Roles:
 - Leadership in risk management
 - Capital budgeting and maintenance planning
 - Data accuracy and quality



How the Physical Impacts of Climate Change Influence Horizon

Horizon Utilities sees increasing impacts from climate change. In its operating area, climate change means temperature shifts, more intense storms and increased precipitation (see box).

- **Temperature shifts.** Ontario has been experiencing erratic temperature shifts over recent years, significantly affecting Horizon Utilities' revenues as a result of electricity consumption (for heat in the winter and air-conditioning in the summer). Peter Vallieres, CPA, CA, director, Financial Reporting and Accounting, explained that "because the summer of 2014 was significantly cooler as compared to previous years, our revenue was negatively impacted."

Climate Change Impacts in the Hamilton Area

Over the next 50 years, the Hamilton area can expect:

- warmer temperatures
- more extreme weather events: heavy precipitation in a short time
- more total annual precipitation

Source: Hamilton Conservation Authority and City of Hamilton, *Environmental and Infrastructure Vulnerabilities from Climate Change – Pilot Project in Hamilton, Ontario* (in preparation).

- **More intense storms.** "There has always been weather," said Vallieres. But Horizon Utilities sees storms occurring more frequently, occasionally causing power outages. Storms damage poles, overhead lines, transformers, substations and other distribution assets, forcing the company to invest in additional labour crews and maintenance programs. Unhappy customers also pose reputational risks.

In July 2013, for example, high winds and lightning strikes felled hundreds of trees. Approximately 20,000 Horizon customers lost power at the storm's peak; completely restoring power took several days. "We were in emergency mode for a significant period of time," said Brian Lennie, Horizon Utilities' policy advisor.

"The July 2013 storm was a significant strain on Horizon Utilities' resources," said Lennie. Then the December 2013 ice storm left more than 30,000 customers without power at the storm's peak.

Adaptation Opportunities for Electric Utilities

- Develop climate change adaptation plans
- Exchange best practices in climate adaptation, including models and methods
- Review electricity system standards and revise as necessary
- Promote demand response and improve system flexibility

Source: Canadian Electricity Association

<https://electricity.ca/lead/protecting-our-environment/climate-change-adaptation/>

Climate Change Considerations for Boards of Directors

TCFD Recommendations: Governance

Governance

Disclose the organization's governance around climate-related risks and opportunities.

Recommended Disclosures

a) Describe the board's oversight of climate-related risks and opportunities.

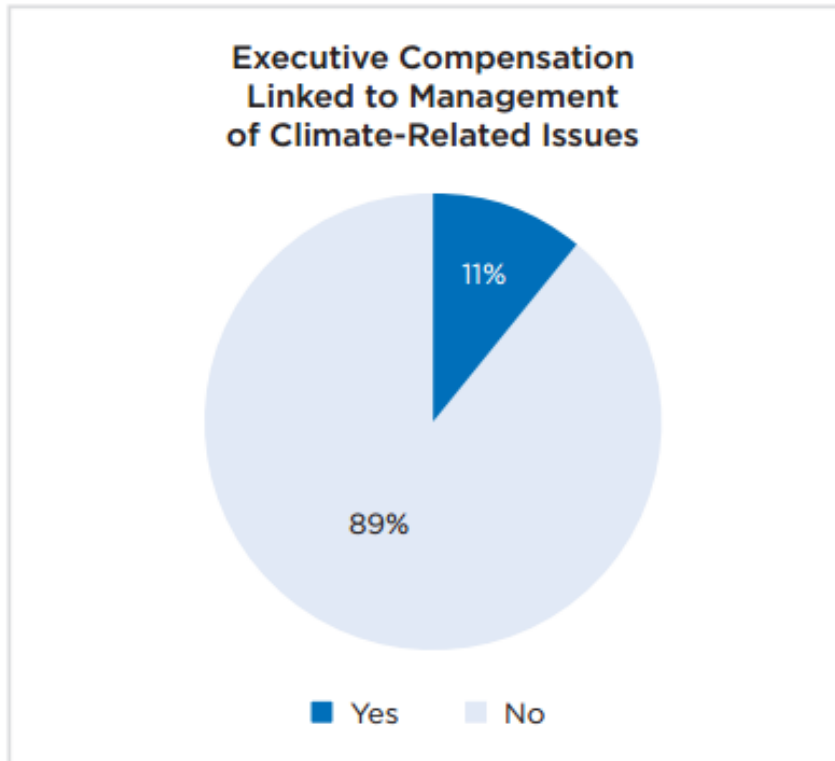
b) Describe management's role in assessing and managing climate-related risks and opportunities.

- Does the board's structure and the knowledge and skillsets of board members enable appropriate oversight of climate change issues?
- How does the company's executive compensation system support the integration of climate change issues into organizational decision-making and performance?

Source: CPA Canada Climate Change Briefing (2017)

Source: TCFD Final Report (June 2017)

CPA Canada Climate Disclosure Study – Governance Findings



Less than one third of companies made specific disclosure of board or senior management oversight of climate-related issues.

Governance Trends

Majority of Boards are not yet considering climate change in oversight responsibilities:

- 60% of Boards do not consider climate change in overseeing strategy (CPA Canada/FEI Canada)
- 64% of Boards have not discussed or considered climate change in strategy (ICD)
- Yet over 50% of Boards believe climate change is an important challenge (ICD)

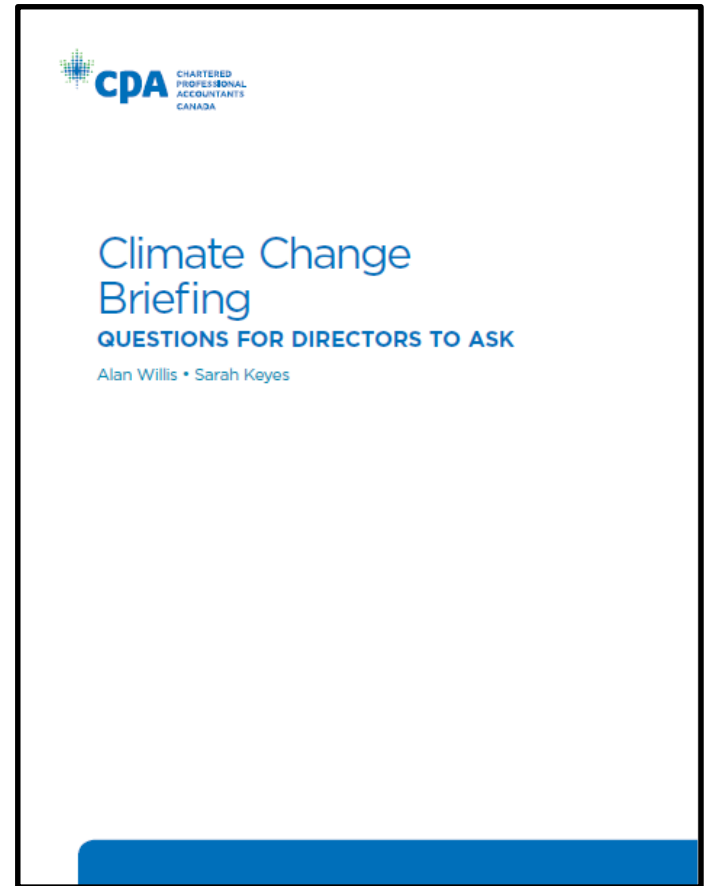
Source:

<https://www.cpacanada.ca/en/members-area/profession-news/2017/august/making-climate-change-a-business-issue>

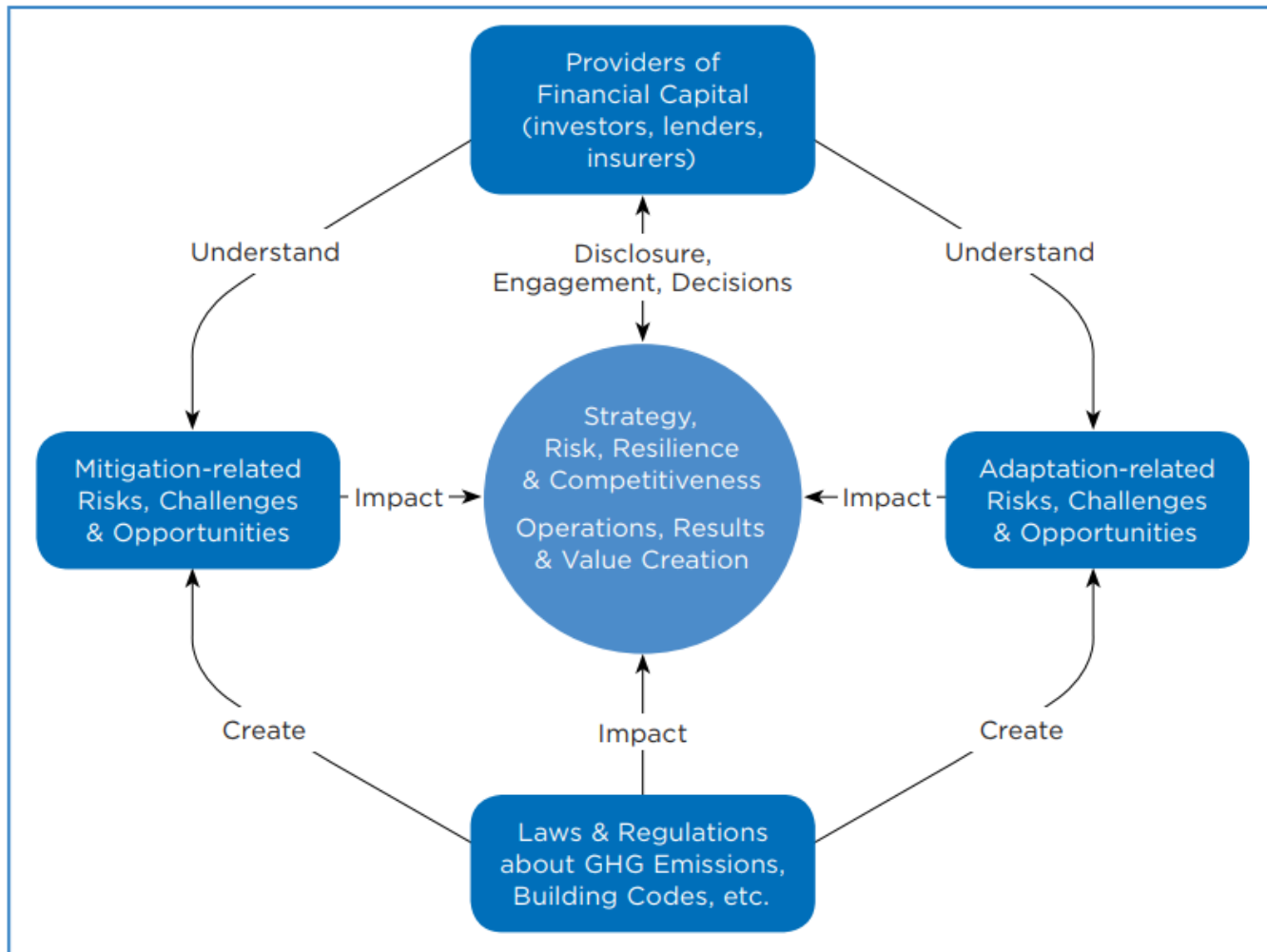
<https://www.icd.ca/Resource-Centre/News-Publications/Director-Lens-Survey/Director-Lens-Fall-2017.aspx>

Climate Change Briefing for Directors

- Provides 20 questions for Boards of Directors to ask about climate change issues
- Covers the following topics:
 - Risk Management
 - Strategy
 - Financial Impact
 - Reporting
 - Governance



Climate Change Impacts



Governance Implications

- Increased scrutiny over climate-related disclosures and corporate governance
- Increased shareholder engagement and resolutions
- Implications for cost of capital – credit rating
- Long-term strategy, risk and performance
 - Materiality
 - Scenario planning
 - Risk and opportunity
 - Business model impacts

Opportunities for Boards of Directors

- Build resilience to predicted climate impacts:
 - Enhance existing infrastructure – operating & maintenance activities
 - Long-term capital planning – integration of predicted climate impacts for new infrastructure assets
- Enhanced climate-related disclosures:
 - OEB performance scorecard – reliability metrics
 - Financial reporting
- Integrate climate change considerations with oversight of strategic planning and risk management:
 - Mandate for Boards of Directors

Questions?

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