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Can Accounting Save the Planet?

The Role of Financial Integrity in the Transition to a **Net Zero** Economy

Professional Accounting Futures Conference (PAC) 2020

Oct 22/20 Panel on ESG and Corporate Value Creation Challenges

Linda Coady, Executive Director, Pembina Institute

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The Alberta-based Pembina Institute is a leading non-profit think tank on energy, climate and environmental issues.

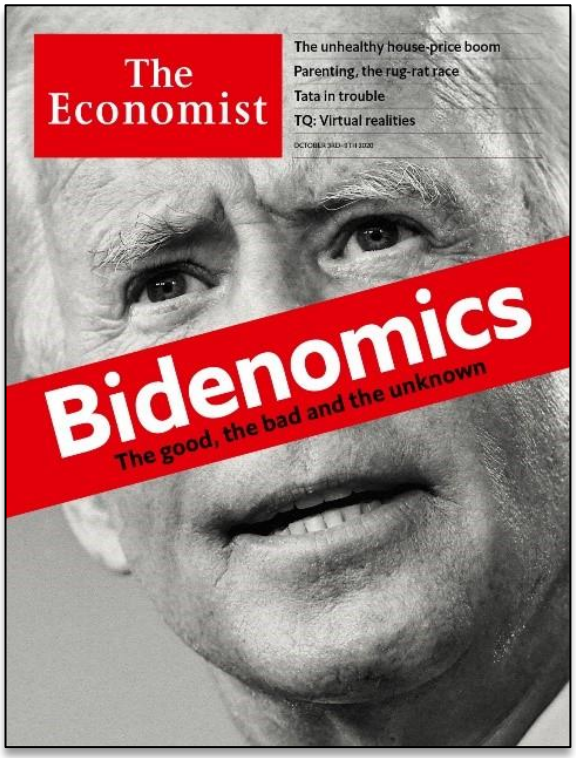
Through research and convening of policy makers, Indigenous and local communities, business and industry, and academic institutions and other stakeholders, we support collaborative approaches to Canada's pathways to a net zero energy economy.

A Sign of the Times

> *In terms of energy, we are living in an "after-Paris" world. For in the half-decade since the Paris Climate Agreement, its impact has only continued to grow.*
>
> *The idea of an energy transition to what is called "net zero carbon" by 2050, which is at the heart of the agreement, is becoming embedded in the strategies of investors and companies and in the policies of governments.*

Daniel Yergin, Vice-Chair, IHS Markit (Energy Analytics)

Another Sign of the Times



Biden Promises $2 Trillion Plan for Climate, Infrastructure and Jobs

The Biden Campaign has embraced *Net Zero*, and tethered *climate and energy* to the *economy and jobs*

> *"If America were to act on climate change … its capital markets, national energy laboratories and universities would make it a formidable green power."*

The Economist, Sep 19, 2020

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Getting to Net Zero

3 Constantly Interacting and Evolving Pathways

1) Government Policy & Regulation

2) Business Investment & Strategy

3) Popular Culture & Behaviour

5

1) Government Policy & Regulation

Some Key Actions taken by Governments

1. Embrace net-zero goal (GHG emissions reduction targets for 2030 and 2050)
2. Increase energy efficiency* (codes, standards, rebates)
3. Phase out coal-fired electricity and incent growth in renewables electricity (tax credits, portfolio standards)
4. Put a cost on GHG emissions (carbon pricing, trading, clean fuel standards)
5. Include climate impact in major project review & approval processes
6. Invest in infrastructure for the new energy economy (grids, buildings, transportation by 2030)**
7. Invest in innovation and technology for the next energy economy (hydrogen, carbon capture by 2040)**
8. Create new financial tools to attract private capital to net zero (securities regulation, investment taxonomies)

***Efficiency: can help meet up to 30% of Paris goals**

****Included in new Canadian and European pandemic-related economic stimuli packages**

2) Business Investment & Strategy

Some Key Actions taken by Business and Financial Institutions

1. Deeper integration of ESG factors in business strategy and investment decision-making
2. More emphasis on transparency, reporting and disclosure
3. Closer financial scrutiny of new projects with high emissions and long lifecycles
4. Adopting 2030 emissions targets for operations and/or financial portfolios
5. Setting sector specific targets for oil and gas, power and auto portfolios
6. Creating new sustainability-focused partnerships, services and products for energy transition

3) Culture & Behavior (2019)

3) Culture & Behavior (2020)

The New Resilience Agenda

The Decarbonization Playbook is Changing

From Polar Bears …

… to More Focus on People, Health, Economic and Social Equity, Safety, Resilience …

… and on a **“Capital Plan”**

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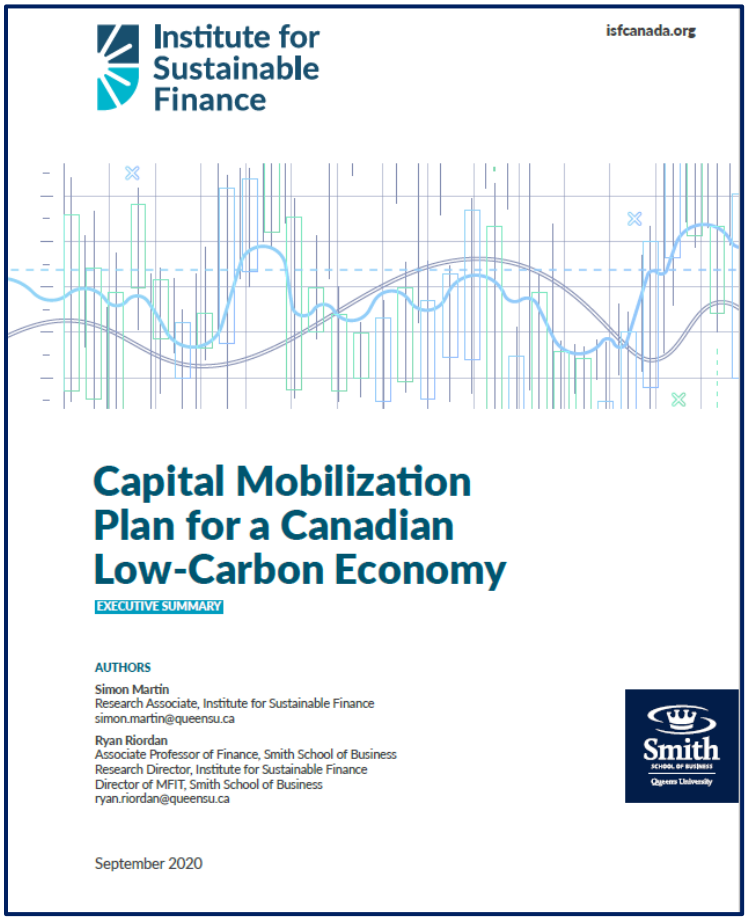
A Canadian Capital Plan for Net Zero

Sep 2020: Institute for Sustainable Finance (Queens University)



KEY FINDINGS

- **Scale of investment required:** $12.8 billion annually over the next 10 years
- **Affordability:** 0.6 per cent of Canada's 2018 GDP and less than 10 per cent of annual capital expenditures of companies listed on the TSX
- **Assumption:** Private capital sources can and will play as much a role as public investment in achieving this ambition

*Recent $10B investment by **Canada Infrastructure Bank** designed to leverage public dollars in ways that draw in multiple amounts of private financing*

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Capital Plans Require Accounting Tools

TCFD Reporting to Address Systemic Risk

The international Financial Stability Board (FSB) has identified **climate change as a systemic risk** to the stability of international financial systems

The Task Force on Climate-Related Financial Disclosures (TCFD) was established by the FSB in December of 2015 to develop a set of **voluntary climate-related financial risk disclosures** which can be adopted by companies to inform investors and other members of the public about the risks they face related to climate change

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TCFD Purpose

Manage & Disclose Climate-Related Financial Risk

- Used to demonstrate corporate alignment and contribution to meeting milestones and goals established by the **Paris Agreement** and the **UN Intergovernmental Panel on Climate Change (IPCC)**
  - ❑ Reduce GHG emissions by 45% by 2030 (over 2010 levels)
  - ❑ Achieve Net Zero emissions by 2050

- Used to demonstrate corporate support and contribution to the **UN Sustainable Development Goals (SDGs)**
  - ❑ SDG 7 to provide universal access to clean, affordable, reliable energy
  - ❑ SDG 3 to reduce the health impacts of air pollution
  - ❑ SDG 13 to tackle climate change

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TCFD Framework

4 Major Categories, Business Risks & Opportunities

2019: Used by 340 Investors with $34M in AUM

- *Transition Risk* – from policy changes, shifts in market preferences, norms, technology
- *Physical Risk* – from changes in weather patterns and extreme weather including droughts, floods, hurricanes and, temperatures
- Spells out the role of management and the board
- Requires analysis and narrative on future scenarios

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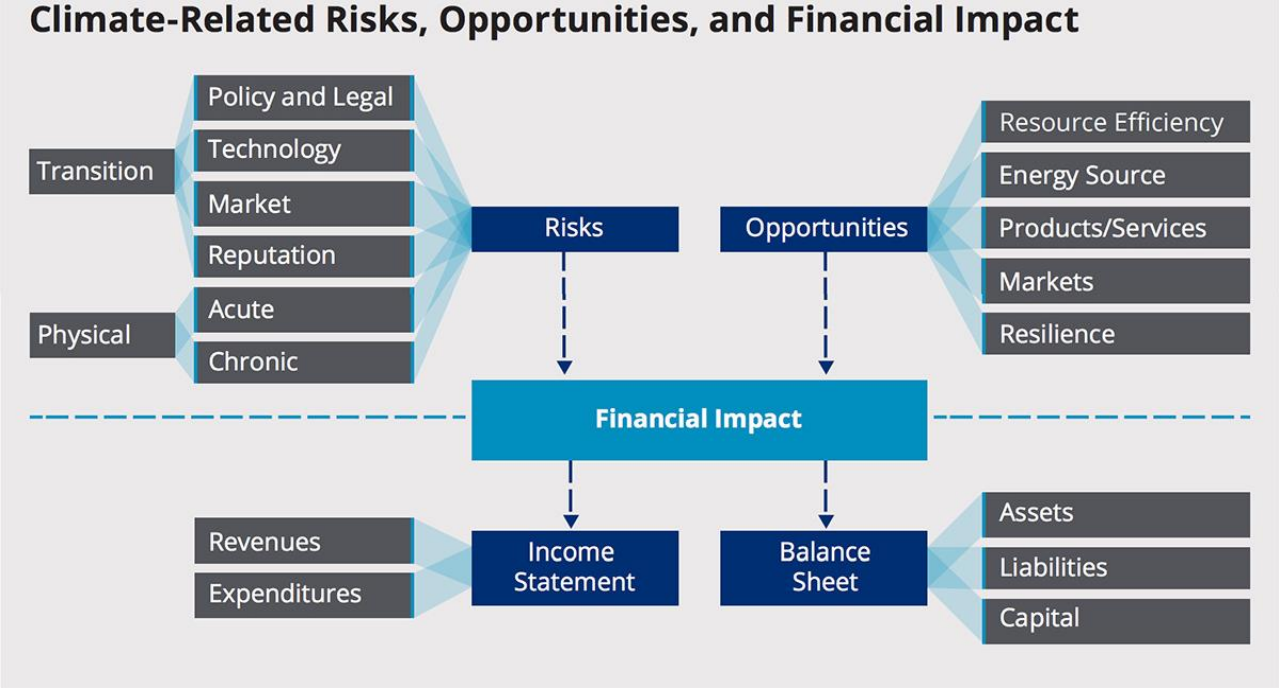
A Systems-Based Approach

Consistent with other Frameworks for Corporate Risk Assessment (CRA)



TCFD framework is used in other Sustainability-Related Reporting Frameworks

- CDP (formerly the Carbon Disclosure Project), SASB (Sustainability Accounting Standards Board)

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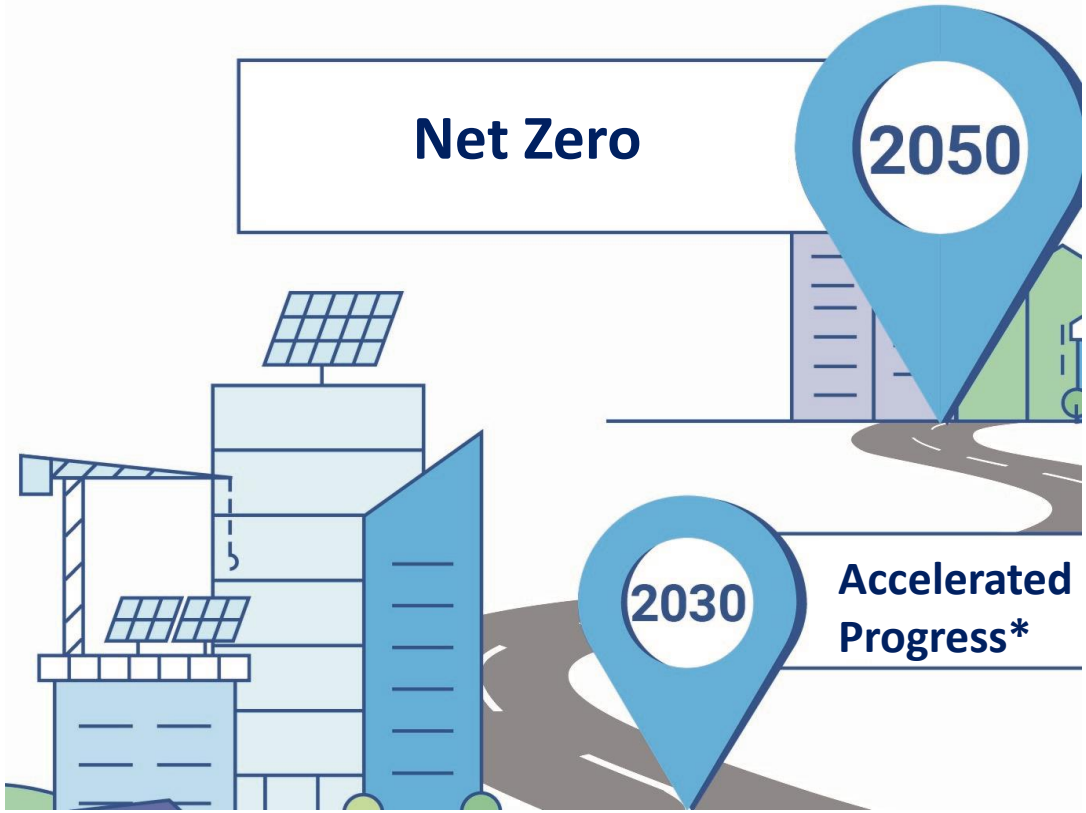
Critical Assumptions 2030 vs. 2050

Policy and Technology Pathways to Net Zero



Corporate climate goals must be actionable, measurable, and capable of increasing the pace and scale of emissions reduction between now and 2030.

**2030 interim science-based targets, specific timelines*

For UNFCCC COP 26 Glasgow 2021

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Critical Assumptions 2030 vs. 2050

International Energy Agency (IEA) Pathways

2030: Reasonable clarity on pathways

- A foreseeable baseline grounded on existing and/or near-term policies, regulations, and economically viable technologies and evolving business models and opportunities
  - ❑ *Efficiency (AI/digitization), renewable energy, grid modernization, batteries and storage, decentralized transmission and distribution, EVs, biofuels, methane reduction, offsetting/trading, waste reduction/circular economy, sustainable product design …*

Post 2030: Less clarity … but some investment "key bets" now being made

- New options stemming from current innovation trajectories and accessibility of economically viable next-generation policies, strategies, technologies, and business models for hard-to-decarbonize sectors.
  - ❑ *Further efficiency, hydrogen, carbon removal (including air capture), advanced nuclear, offsetting/trading …*

Challenges

Costs, Comparability, Complexity, Competition, Confusion

Climate modelling is hard to do

- Still early days for financial tools for climate evaluation

Climate reporting is expensive to do

- Difficult for small companies
- Can even impose a significant burden on large companies

Access to reliable data is an issue

- Particularly challenging for financial portfolios that incorporate multiple industries and geographies
- Need better comparative data on regulatory frameworks
- Need new models for combining asset value with climate/geographic risk
- "Geopolitics" on transparency issues varies widely
- Global frameworks for emissions trading still years away *(Article 6, Paris Agreement)*

ESG practices still a bit of a "wild west"

- Variety of different standards, measures, practices … duplication, fragment
- MIT Sloan "Aggregate Confusion" Project

Some Harmonization/Consolidation Occurring

TCFD Fundamentals are Cross-Cutting

Standards, Rating Systems, and 3rd Party Verifications

Laws and Regulations

Security Commissions & Stock Exchanges

Consumer & Customer Facing Certifications

Large Pension Funds

Corporate Plans for Emissions Reduction

Some Common Elements

- Use technologies and management systems that optimize **energy and resource efficiency** across all **operations and supply chains.**
- Use more **renewable energy**
- Use/develop **low carbon facilities and other foundational infrastructure and systems**
  - ❑ Deploy integrated, multi-year, enterprise-wide strategies for power, buildings, transportation, supply chain management, logistics, waste, water, emergency response, and ESH
- Invest in **advanced and next-generation technologies and innovation** across key operations, value chains, and product life cycles
  - ❑ Plastics, batteries, electronic waste
- Invest in **local communities**
  - ❑ Support access to clean and affordable energy
  - ❑ Build climate resilience through ecosystem restoration (forests, soils, water, biodiversity)
- Engage in new **partnerships/collaborations with diverse interests**
  - ❑ Communities, NGOs, youth, Indigenous peoples

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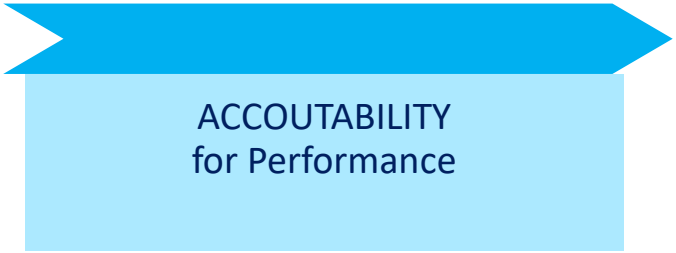
Financial Integrity is a Critical Success Factor

Transition to Net Zero



Set goals, measure, verify, report … and repeat	Requires ability to account, qualify, audit, assure, certify
More important in some sectors than others	Energy, Natural Resources, Technology, Buildings, Transportation, Waste

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Q: Can accounting save the planet?

A: It can certainly make a difference