What will it Take to Get Businesses to Focus on Adaptation to CC?

Climate Change and
Conservation Authorities in Northern Ontario
February 16, 2010

Dr. Blair W. Feltmate
Professor and Director, Sustainability Practice
School of Environment, Enterprise and Development
Faculty of Environment
bfeltmat@uwaterloo.ca Ph: 519-888-4567 ext. 38981

Chair, Sustainable Electricity Program
Canadian Electricity Association

February 16, 2010

Agenda

The following limitations must be addressed if business is to embrace adaptation to CC:

1. Many business leaders are still not convinced that CC is real -- we need to “turn this view” around.

2. For business leaders who accept that CC is real, relative to adaptation, a key limitation is “adapt to what? What will the future look like?” -- we need to develop industry-specific CC adaptation guidance.

3. The business case vis-à-vis “CC adaptation” is not clear -- we must identify how CC adaptation will create value on an industry-specific basis. (lessons can be drawn from the Canadian Electricity Association’s Sustainable Electricity Program)

4. The Canadian Electricity Association – how should we be addressing adaptation to CC?

Convincing Business Leaders that CC is Real:
Scientists must publish on the "Science of CC" in the business literature
- e.g., Globe and Mail, Report on Business, Canadian Business

- **Sea Level and Global Temperature**: sea level and global mean temperature have risen 1.6 and 1.3 times faster, respectively, than IPCC 2007 worst worst-case predictions
- **Arctic Ice Loss**: 1980-2007, Arctic Ocean sea ice coverage declined from 10 million km^2 (equal to size of USA) to 4 million km^2, with accompanying loss of sunlight reflectivity per unit area (0.8 reflection coefficient to 0.2)
- **Algal Free Ocean**: 1980-2007, the algal free area of the world's oceans increased by 15% in response to higher surface water stability and lower nutrient cycling, thus affecting a reduction in the ocean's CO_2 sink capacity
- **350 ppm CO_2**: 2010 global atmospheric CO_2 concentration 388 ppm, heading upwards to 450/550 ppm. A positive "feedback loop" (i.e., climate change driving climate change) occurs when atmospheric CO_2 persists above 350 ppm

- At a recent Next Generation Utilities conference in California, the majority of business leaders had no understanding/awareness of the above (or related) facts

- **CC messaging should be coming from scientists in "user-friendly" form**
- **currently, Eric Reguly and Margaret Wente have greater "CC scientific influence" on business leaders than most scientists**

Relative to CC, What Will the Future "Look Like"? How can we plan for a future that is ill-defined?

(capital stock turnover challenge)

Niagara Tunnel – will power 160,000 homes

Little Jackfish River, Northwest Ontario – will add 85 MW of capacity

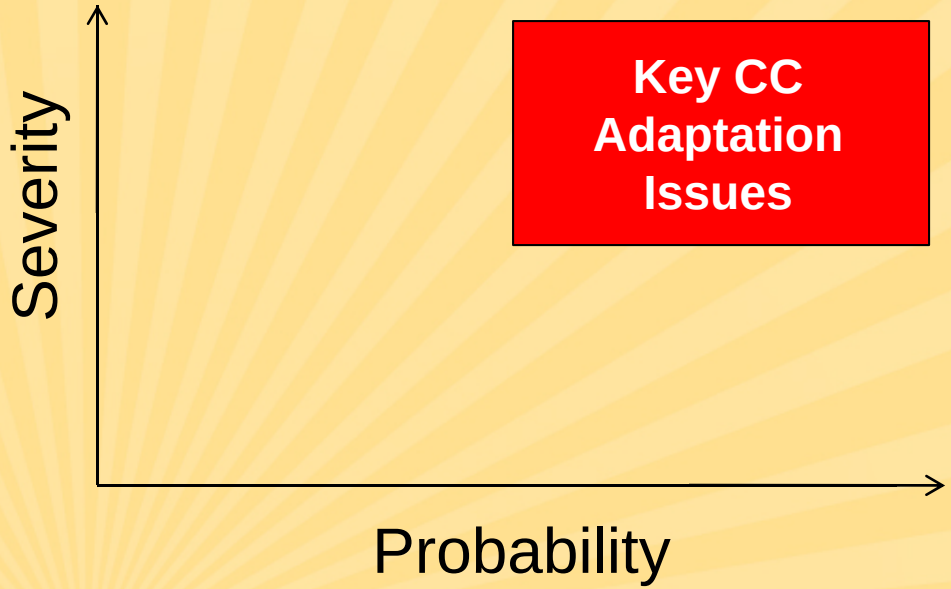
Lower Mattagami River (Timmins) - will add 450 MW. Will replace Smoky Falls GS, and expand Little Long GS and Kipling GS

Stewartville GS, Madawaska River, Arnprior – built 1948

Lowering Uncertainty Regarding CC

1. **Adaptation to Mitigation**: this can often be presented with certainty (e.g., coal electricity generation closure in Ontario)

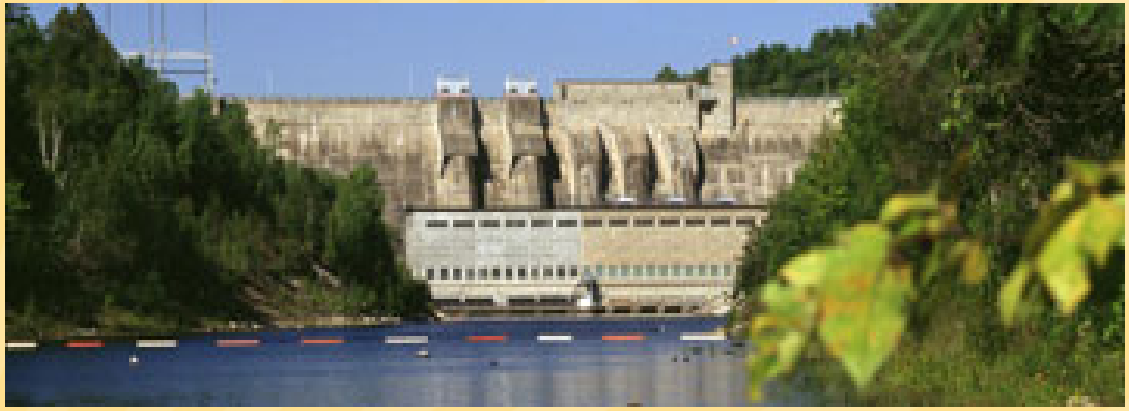
2. **Adaptation to CC**: need to identify issues in the "upper right corner"



Calculate the CC severity/probability for:

- mining
- forestry
- petroleum
- utilities
- manufacturing
- hospitality
- banking
- insurance
- telecommunications
- media services
- automotive, etc.

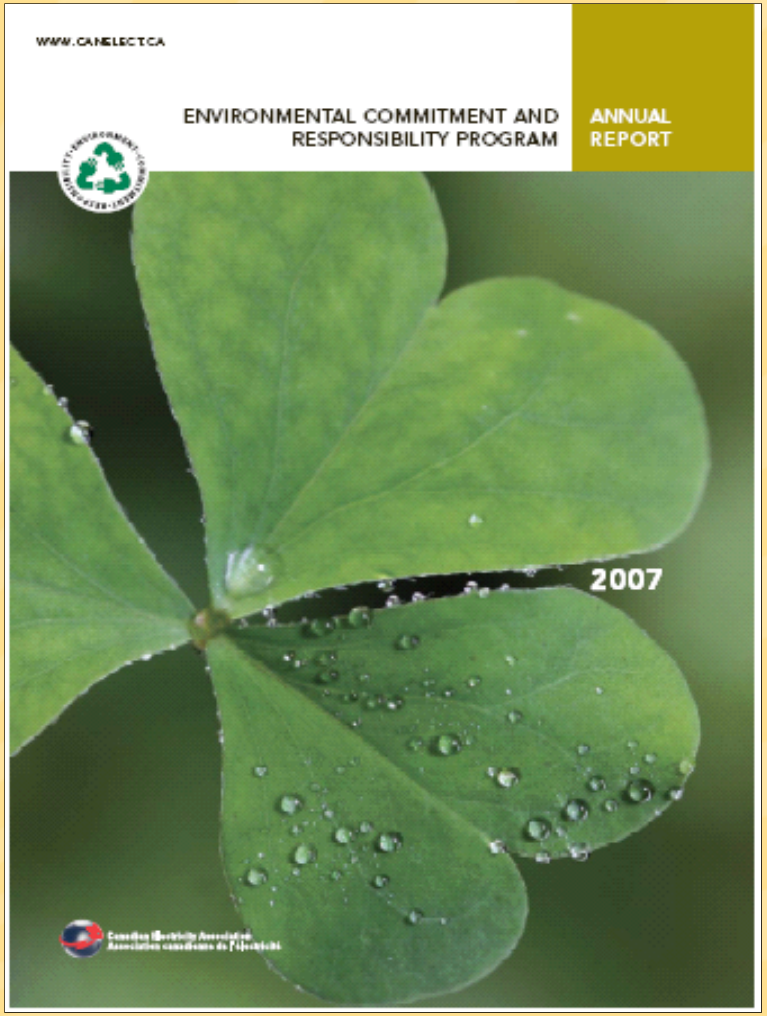
In addition to the Direct Impacts of CC, What are the High-Probability Cascading Impacts of CC?



e.g., relative to electricity generation, how will CC also impact…

- demand for electricity from forestry, auto, mining, hospitality…?
- how will demand/supply change the price for electricity?
- how might environmental regulations change -- Fisheries Act?
- e.g., more fish ladders, population loss offsets, etc.

The Business Case to Act on CC Adaptation: Lessons from the Canadian Electricity Association



Canadian Electricity Association (CEA)

- Founded in 1891
- Membership produces and transmits 90% of electricity in Canada
- Representative body for liaison with governments (national/international) and regulatory agencies, and a facilitator for inter-company dialogue

- Altalink Management
- ATCO Power
- BC Transmission Corp.
- City of Medicine Hat Electric Utility
- Brockfield Power
- EPCOR
- Fortis BC
- Hydro One
- Manicouagan Power Company
- Maritime Electric Power Company
- Newfoundland and Labrador Hydro
- Northwest Territories Power
- Ontario Power Generation
- Saskatoon Light & Power
- Toronto Hydro
- TransAlta
- ATCO Electric
- BC Hydro and Power Authority
- Burlington Hydro Inc.
- Columbia Power Corp.
- ENMAX Corp.
- Fortis Alberta
- Horizon Utilities Corp.
- Hydro Ottawa Holdings
- Manitoba Hydro
- New Brunswick Power Holding
- Newfoundland Power
- Nova Scotia Power
- Saint John Energy
- SaskPower
- TransCanada
- Yukon Energy

Making the "SD Business Case": Winning Over Internal Working Groups and the Board of Directors

1) SD is good business

- Dow Jones Sustainability World Index (Aug. 1999 - Aug. 2008: DJSWI -7.70% vs. MSCI -9.57%)
- Research Network for Business Sustainability, 160 "SD" studies reviewed, 75% showed positive impact of SD, 25% neutral
- United Nations Environment Programme Finance Initiative – 20 "SD" studies reviewed, 50% showed positive impact of SD, 10% showed postive/neutral impact, 20% neutral relationship, 5% neutral negative, 15% negative effect
- sdEffect™

2) SD already "in practise" in many CEA member companies

- Many -- if not all -- CEA member companies already practised aspects of SD. Accordingly, potential positive "SD brand" was being under-utilized/valued.

Sustainable Development Benefits

- **Secure "License to Operate" -- for new build and refurbishment**
  - build public support
  - build governmental support

- **Attract and retain a productive workforce**

- **Secure the confidence of investors**

- **Address media and activist pressures**

- **Build due diligence protection**

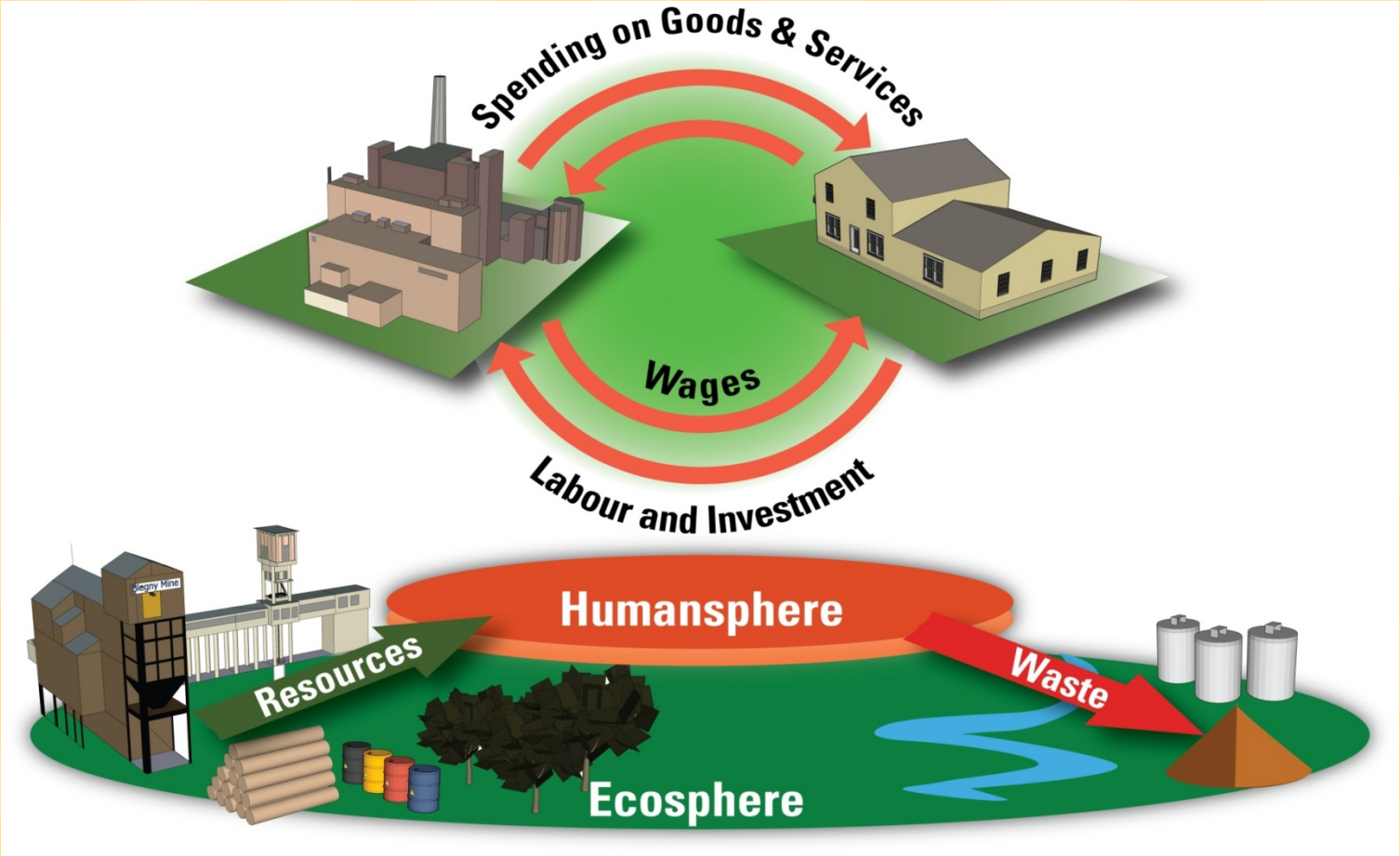
- **Minimize regulatory "overkill"**

3.

	Program Status	
Association	**1997**	**2007**
Canadian Chemical Producers Association (CCPA)	*"Responsible Care"* (environmental focus)	Expanded to a sustainability focus in 1998
Mining Association of Canada (MAC)	No program in place	*"Towards Sustainable Mining"* launched in 2004 (sustainability focus)
Canadian Association of Petroleum Producers (CAPP)	No program in place	*"Stewardship"* Program launched in 1999 (sustainability focus)
Forest Products Association of Canada (FPAC)	No program in place	*"FPAC Sustainability Initiative"* launched in 2005 (sustainability focus)
Canadian Bankers Association/ International Finance Corp.	No program in place	"Equator Principles" established 2001
Canadian Electricity Association (CEA)	**"Environmental Commitment and Responsibility Program"**	**"Environmental Commitment and Responsibility Program"**

With Business – Promote the Business Case

- Push the Bottom Line, not the Triple Bottom Line
- Push Fiduciary Responsibility, Not Corporate Social Responsibility



"*Your position shows good taste but poor insight*"

…John Muir

The Electricity Industry's Answer to the Question of a Sustainable Tomorrow…

SustainableElectricity
It's in our power™

Launched on February 19, 2009 by the CEA Board of Directors

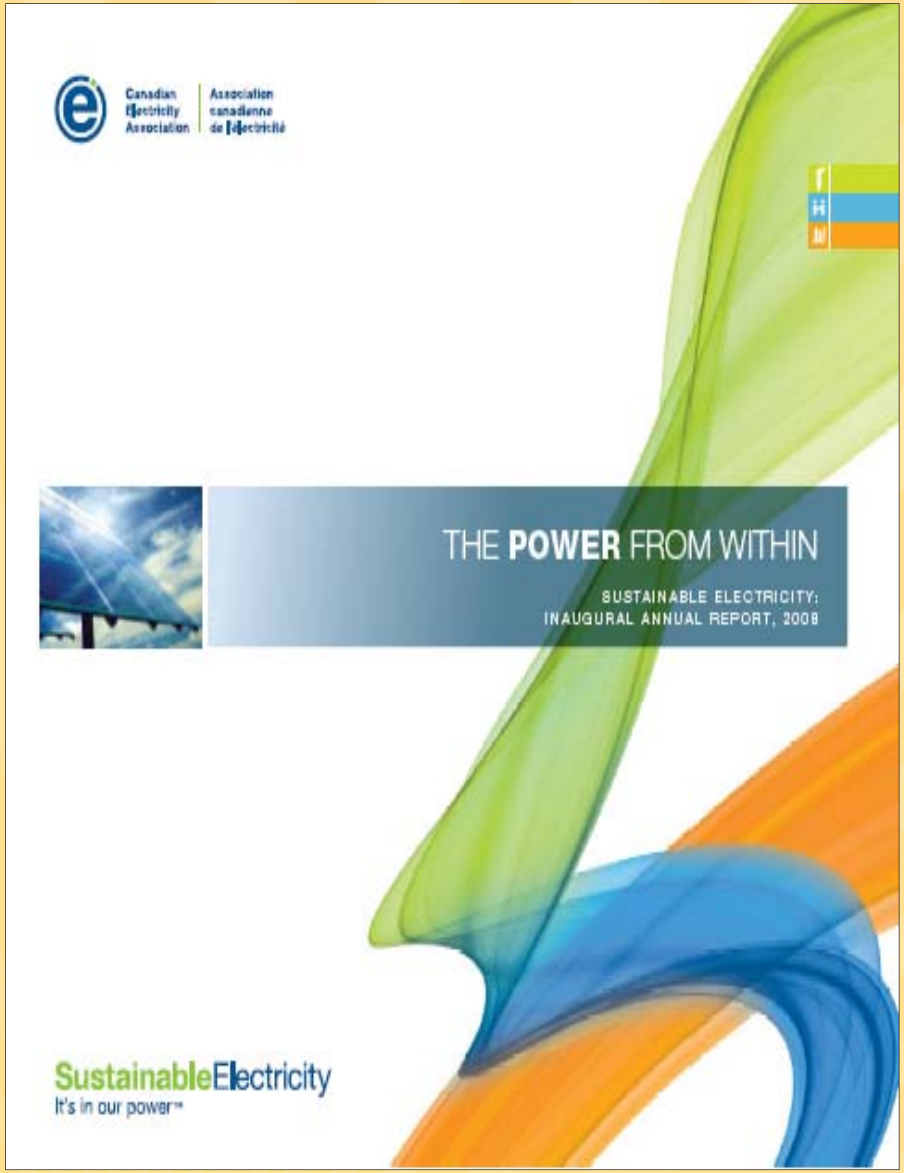


Table of Contents

- Joint Message from the Executives
- Overview of Sustainable Electricity
- A Policy for Sustainable Development – Corporate Responsibility
- Sustainable Electricity Public Advisory Panel
- Letter from the Public Advisory Panel
- 2008 Sustainable Development Performance: Executive Summary
- Building a Sustainable Electricity Future

CEA Member Performance: Environment

- Principle 1: Environment
- Principle 2: Stewardship and Biodiversity
- Principle 3: Climate Change

CEA Member Performance: Social

- Principle 4: Health and Safety
- Principle 5: Workplace
- Principle 6: Communication and Engagement
- Principle 7: Aboriginal Relations

CEA Member Performance: Economic

- Principle 8: Economic Value
- Principle 9: Energy Efficiency
- Principle 10: Security of Supply

Industry at a Glance

Sustainable Electricity Steering Committee Members

Public Advisory Council

The Honourable Mike Harcourt, Chair

- 30th premier of British Columbia
- Former chair of the Urban Sustainability Program, National Round Table on the Environment and the Economy

Dr. Frank Frantisak (OC)

- Former Senior Vice President, Noranda Inc. (world operations)
- Former Director, World Business Council on Sustainable Development

Mr. David Oulton

- Former Assistant Deputy Minister of Natural Resources Canada and Agriculture Canada.

Mr. Ken Ogilvie

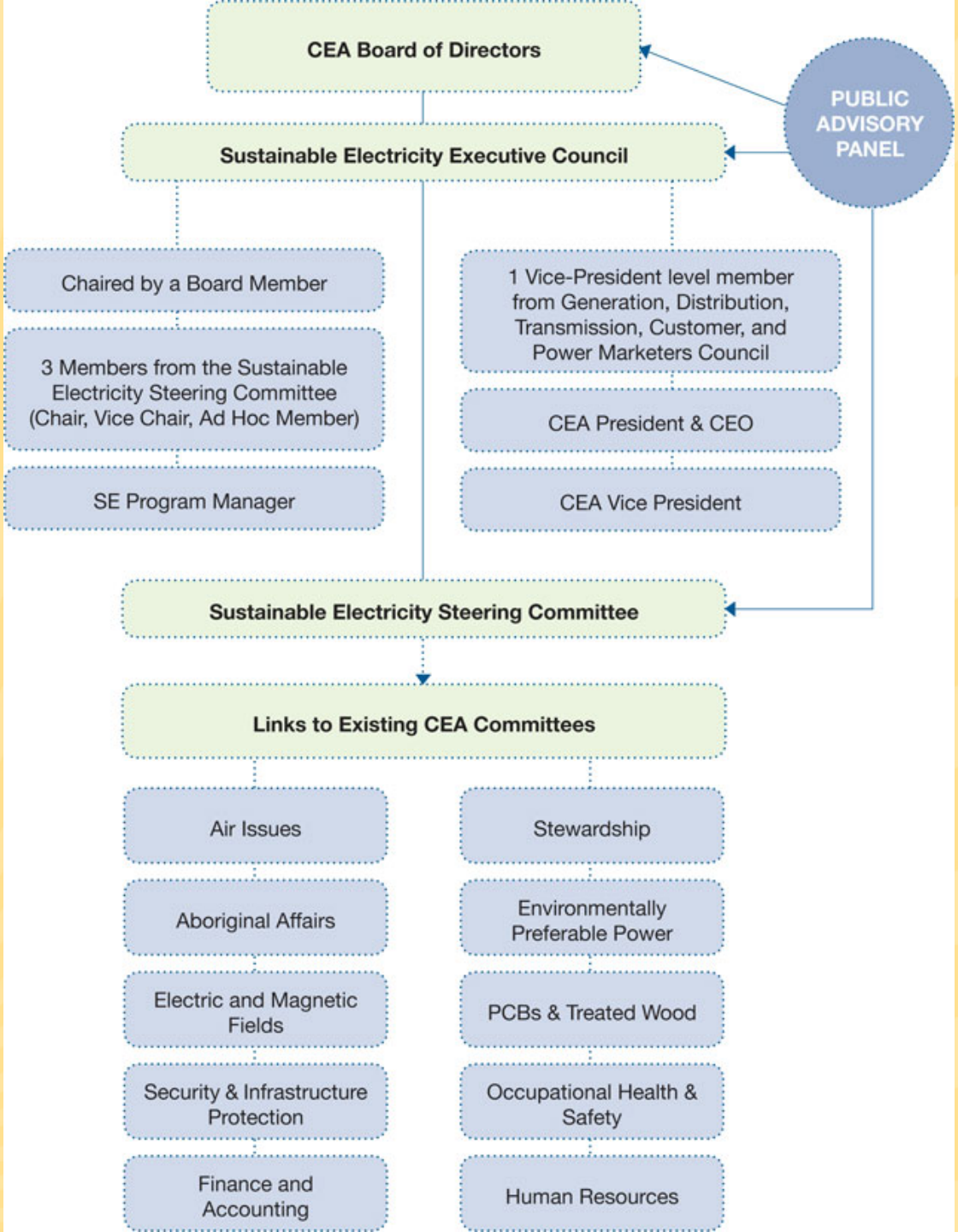
- Former Executive Director of Pollution Probe

Professor Yves Le Bouthillier

- Professor, Faculty of Law, University of Ottawa
- Specializes in international human rights law and environmental law

Dr. Judith Sayers

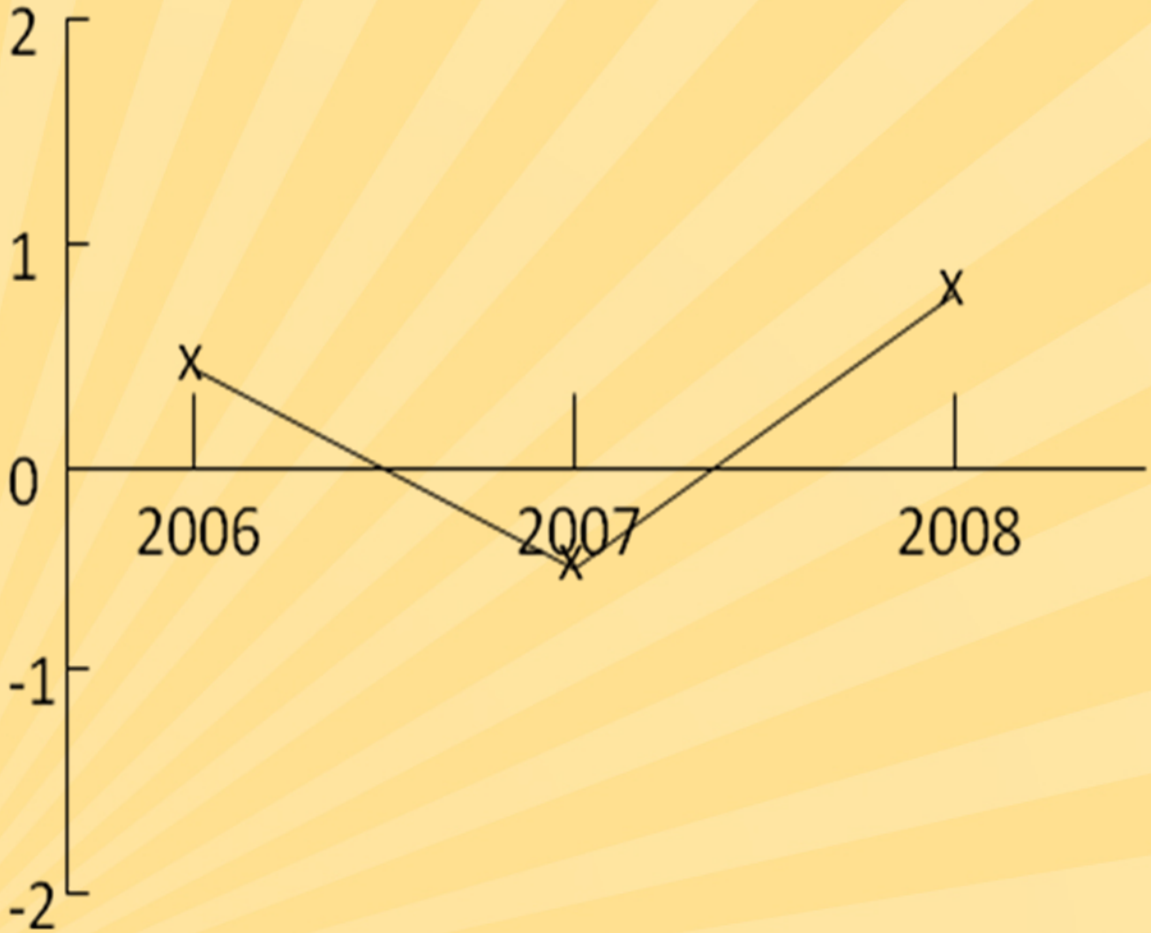
- Chief of the Hupacasath First Nation, Port Alberni, BC


CEA Board of Directors
PUBLIC ADVISORY PANEL
Sustainable Electricity Executive Council
Chaired by a Board Member
3 Members from the Sustainable Electricity Steering Committee (Chair, Vice Chair, Ad Hoc Member)
SE Program Manager
1 Vice-President level member from Generation, Distribution, Transmission, Customer, and Power Marketers Council
CEA President & CEO
CEA Vice President
Sustainable Electricity Steering Committee
Links to Existing CEA Committees
Air Issues
Aboriginal Affairs
Electric and Magnetic Fields
Security & Infrastructure Protection
Finance and Accounting
Stewardship
Environmentally Preferable Power
PCBs & Treated Wood
Occupational Health & Safety
Human Resources

Biodiversity Measure of Performance may be Similarly Applied to Assess CC Adaptation

Score		Criteria
1	0	
		1. Analyze corporate activities with regard to their impacts on biodiversity.
		2. Include the protection of biological diversity within their environmental management system, and develop biodiversity indicators.
		3. Appoint a responsible individual within the company to steer all activities in the biodiversity sector and report to the Management Board.
		4. Define realistic, measureable objectives that are monitored and adjusted every 2-3 years.
		5. Publish activities and achievements in the biodiversity sector in the company's annual, environment, and/or corporate social responsibility report.
		6. Inform suppliers about the company's biodiversity objectives and integrate them accordingly.
		7. Explore the potential for cooperation with scientific institutions, non-governmental organizations, and/or government institutions with the aim of deepening dialogue and continuously improving the corporate management system vis-a-vis the biodiversity domain.

Sustainable Development Index (SDI): 2006 - 2008



Conclusions

1. Messaging that CC is real must come from scientists, in user-friendly form, in the literature that business leaders read

2. CC must be presented to industry from a severity/probability perspective – this must be done on an industry-specific basis

3. Attempts should be made to identify not only the direct impacts of CC, but also the cascading impacts (e.g., tar sands and project financing for banks)

4. **Business must be presented with a strong business case to act on/ adapt to CC**