

Provincial Initiatives in Energy and Climate Policy in Canada

**Energy, Environment and Climate Change Forum for
High-Level Mexican Policy Makers
Sheraton Centro Historico
Mexico City Mexico
24 August 2009**

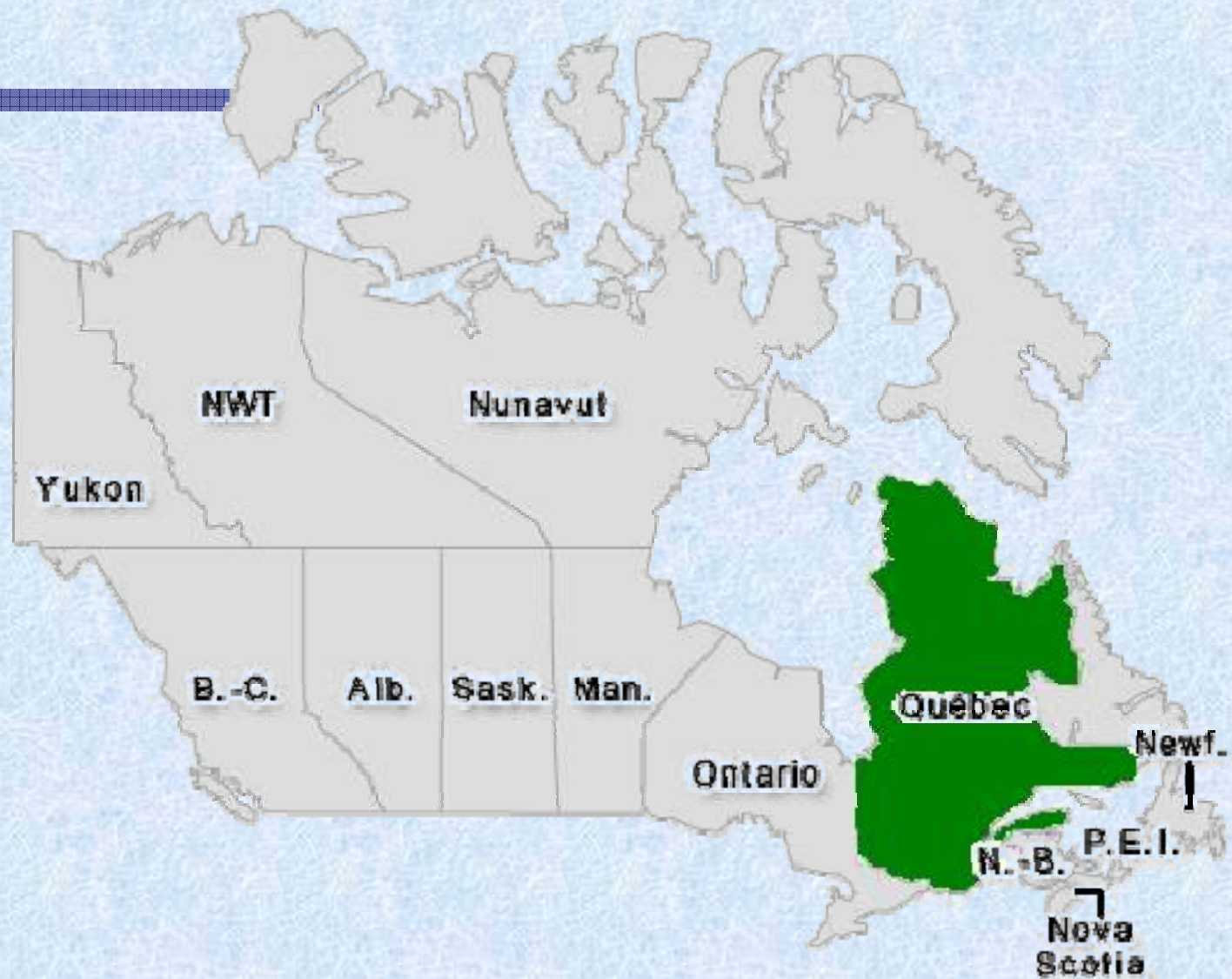
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Canada



Presentation Outlook

- **Impacts of Climate Change in Quebec**
- **Electricity Generation in US and Canada**
- **Canadian Provinces Energy Strategies**
- **Approaches to tackle Climate Change**
- **Federal Government Action**
- **Future Developments**

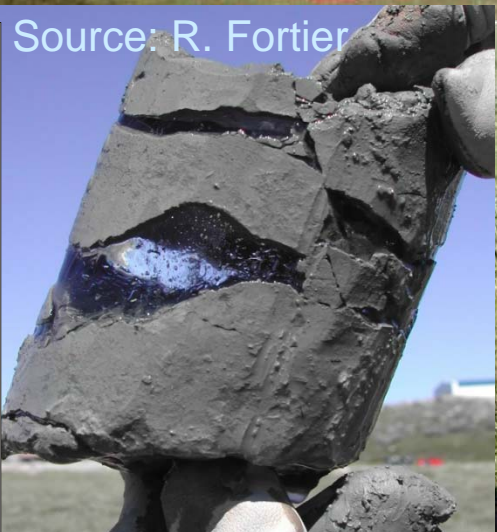
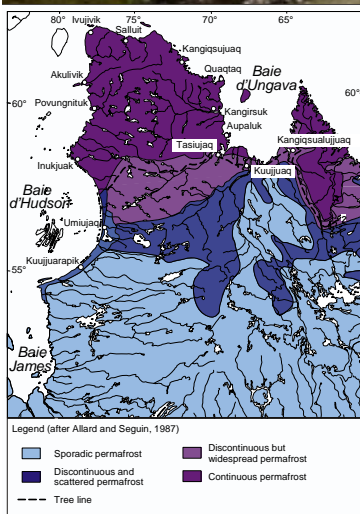
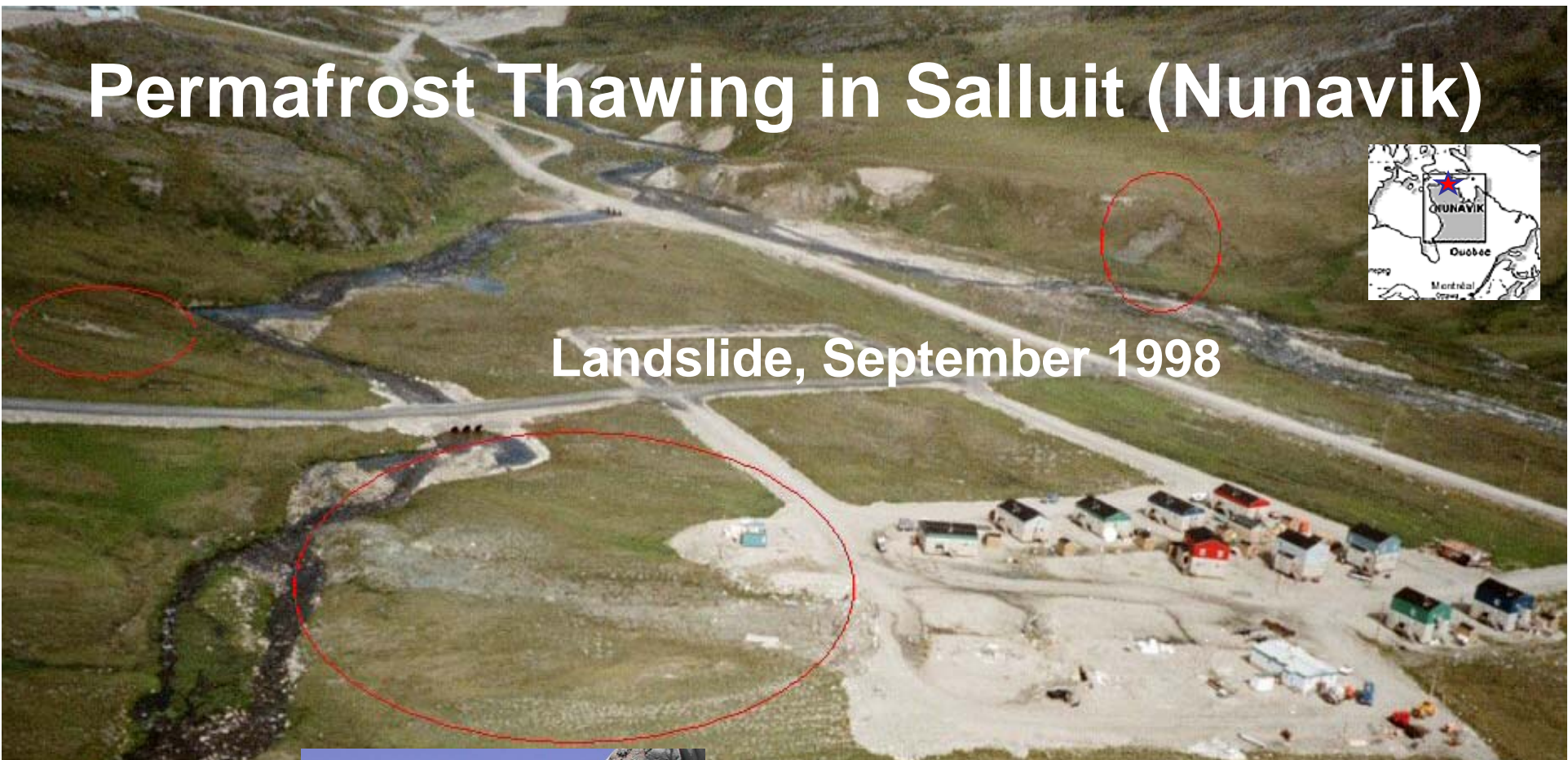
Province of Quebec



Permafrost Thawing in Salluit (Nunavik)



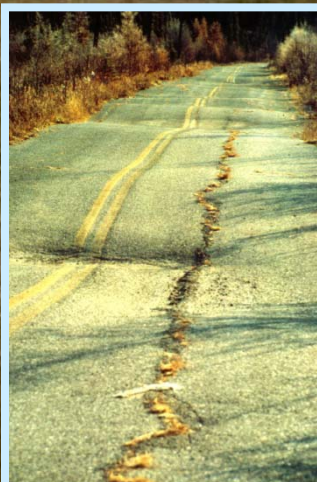
Landslide, September 1998



Source: R. Fortier



Richardson Highway
Alaska →



Coastal Erosion in Southern Québec

Sainte-Luce (Lower St. Lawrence)

December 2005



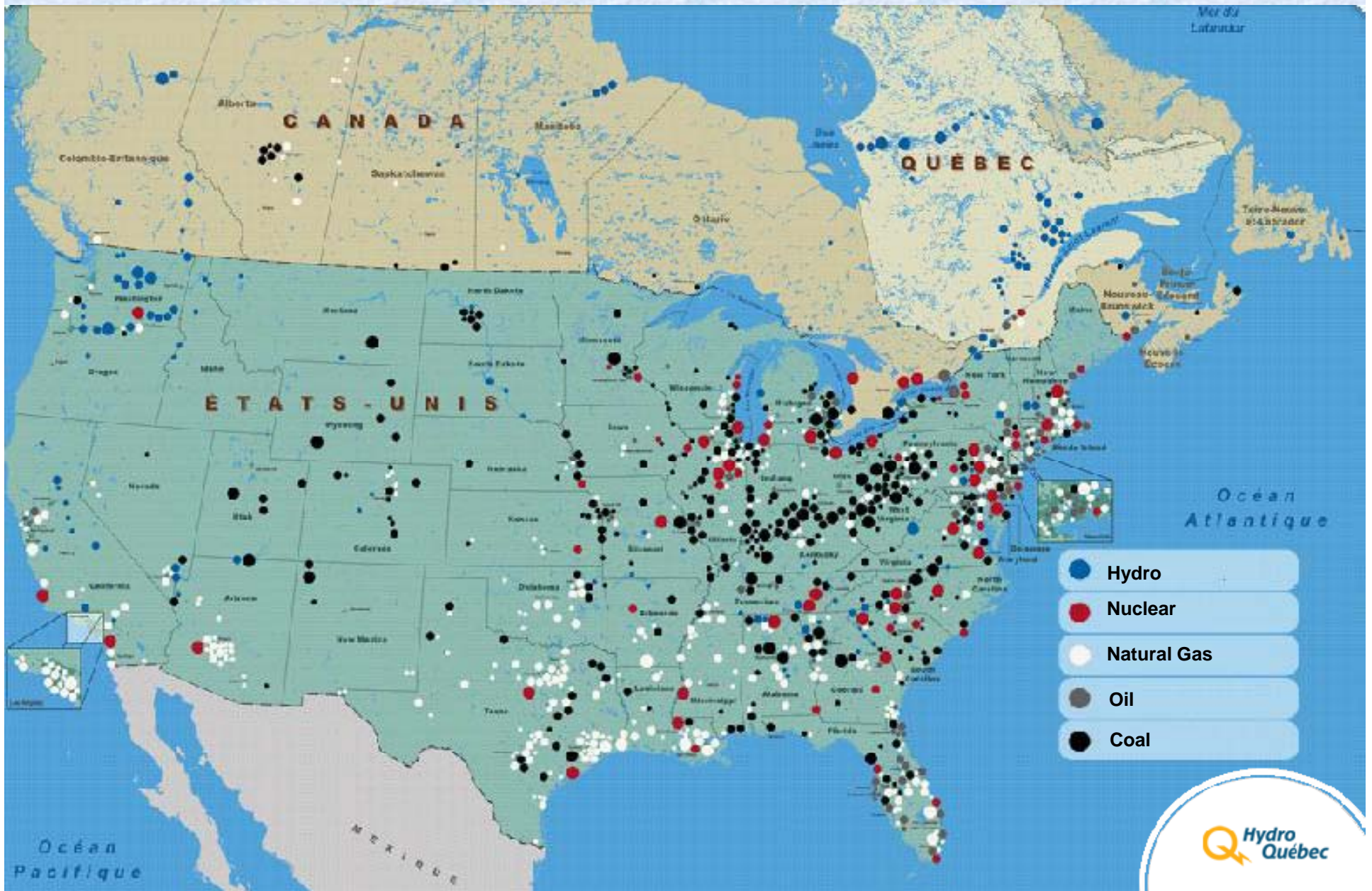
Coastal Erosion in Southern Québec

Matane (Gaspé)

October 2005



Electricity Generation In The U.S. And Canada



Electricity Generation In The U.S. And Canada (2005)

UNITED STATES

CANADA

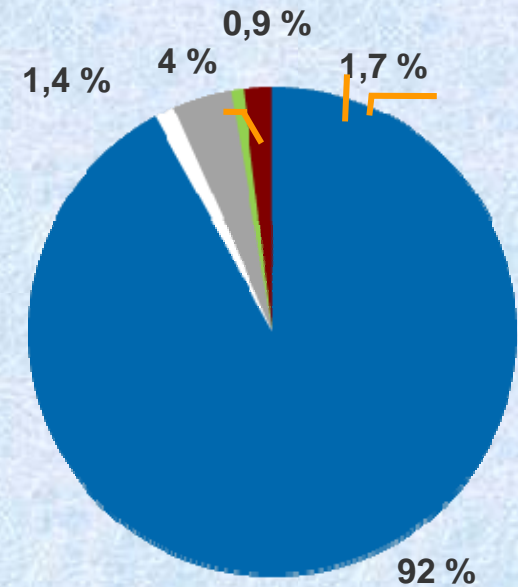
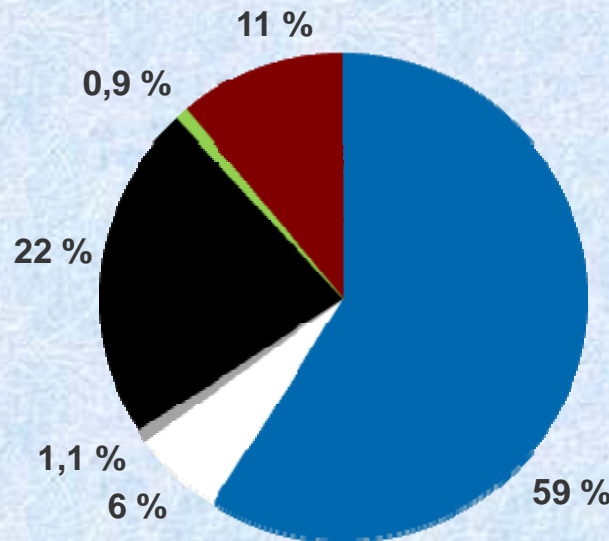
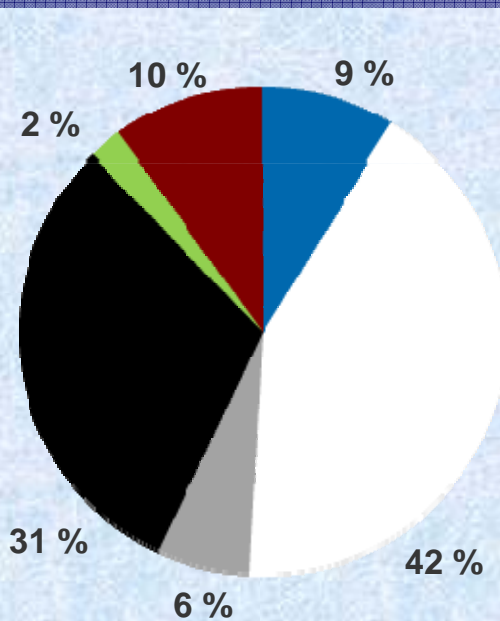
QUEBEC

Installed Capacity

1 076 000 MW

124 000 MW

40 000 MW



Natural Gas
 Oil
 Coal
 Others
 Nuclear
 Hydro

Source Energy Information Administration 2008 (Name Plate Capacity)

Source Statistiques Canada

Source Statistiques Canada

Electricity Generation

4 064 TWh

592 TWh

180 TWh

Source Energy Information Administration 2008 (Name Plate Capacity)

Source Statistiques Canada

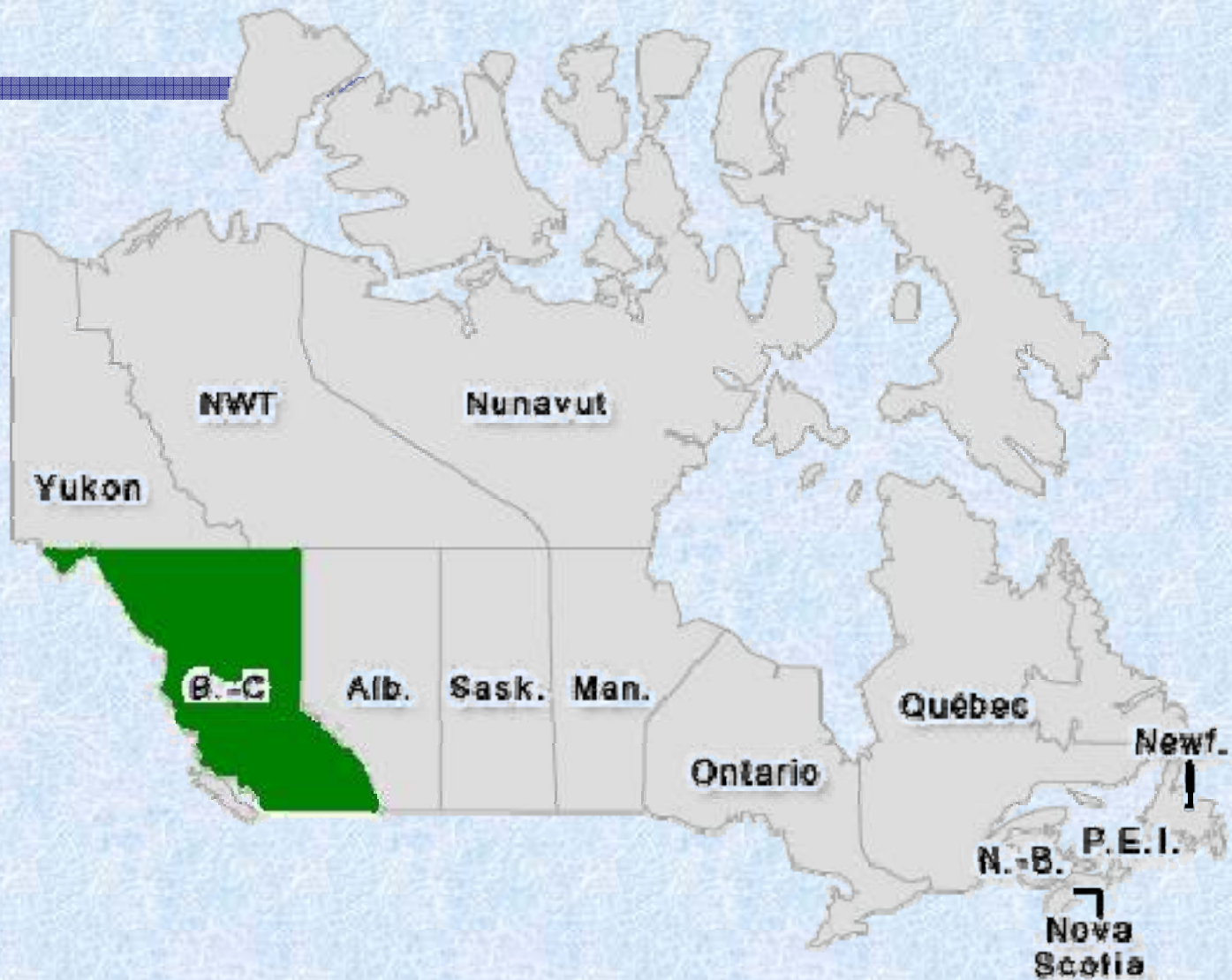
Source Statistiques Canada

Wind Power in Quebec



- 800 MW : Installed
- 2200 MW : Under Construction
- 1000 MW : Planned for 2014
- 500 MW : Communities

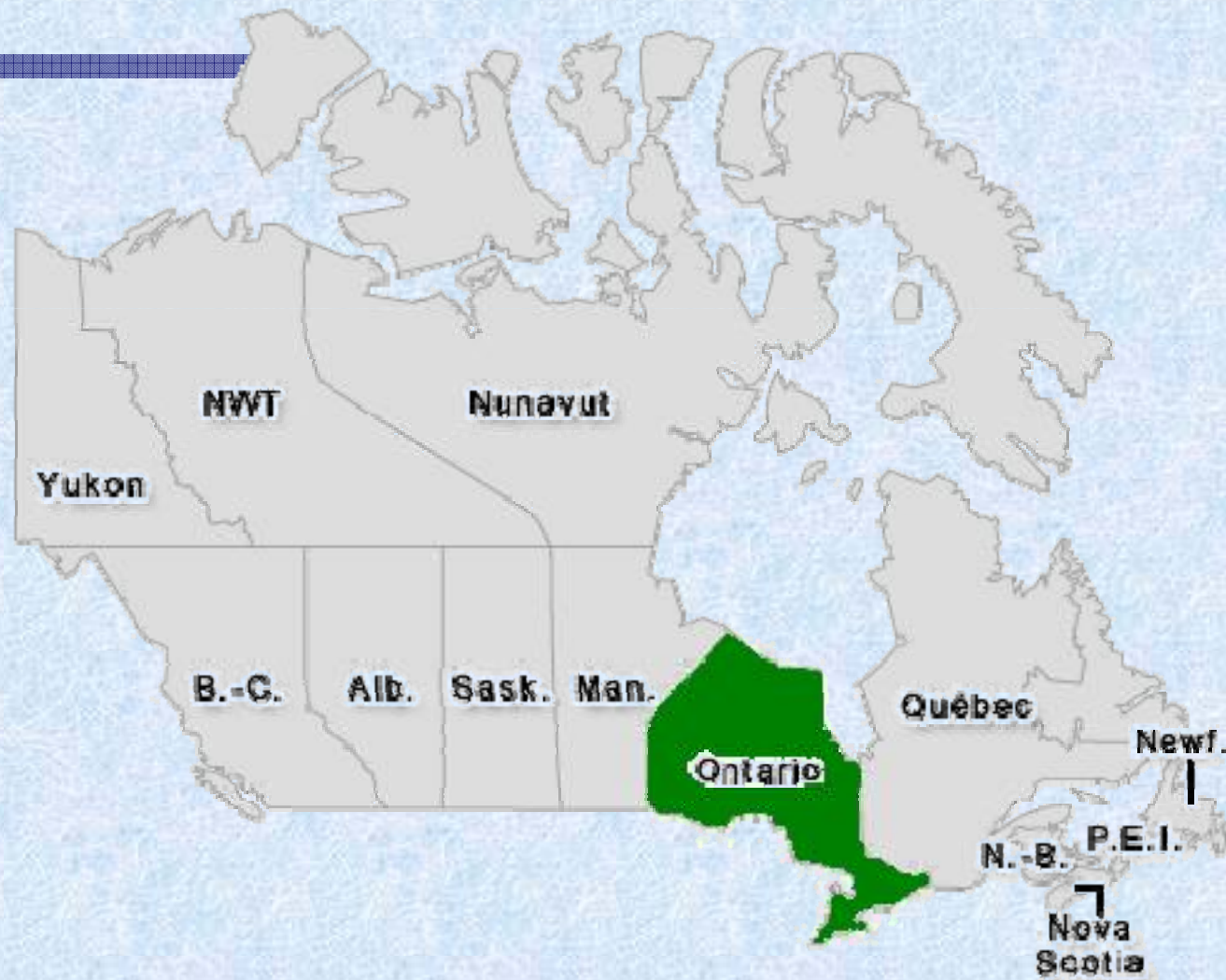
British Columbia



British Columbia Energy Strategy

- New electricity projects : zero net GHG emissions
- Existing power plants : zero net GHG emissions by 2016
- 50 % of new electricity demand to be satisfied through conservation (2020)

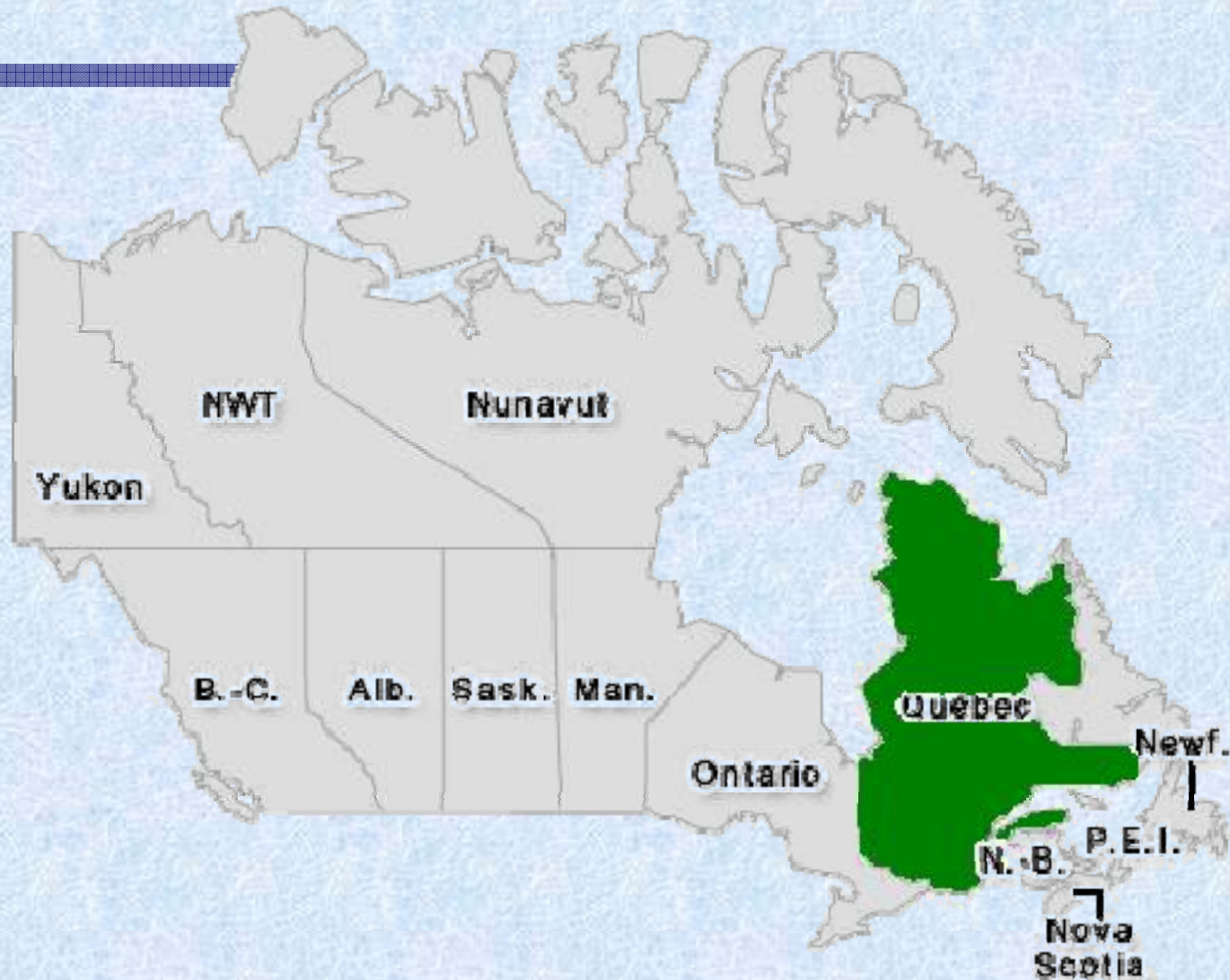
Ontario



Ontario Energy Strategy

- Introduce special tariff for energy generated from renewables
- Establish the right to connect to the grid for small renewable projects
- Expansion of wind, solar, hydro, biomass and biogas energy
- Energy efficiency standards in building code

Quebec



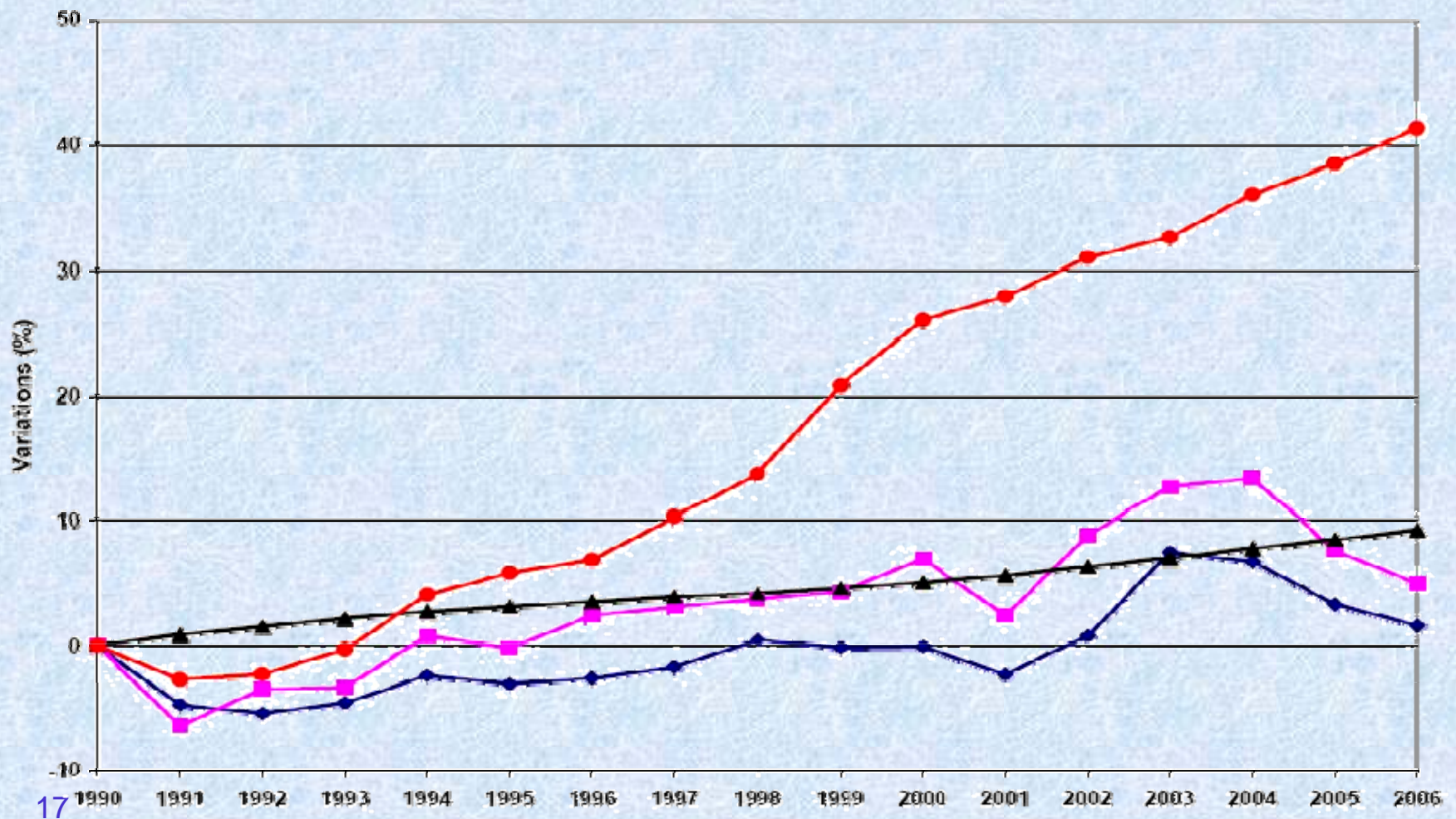
Traditional Approach to Climate Change

- Voluntary Action
- Incentive measures
- Public awareness
- Concertation with industry

Québec's Energy and Climate Change Strategies

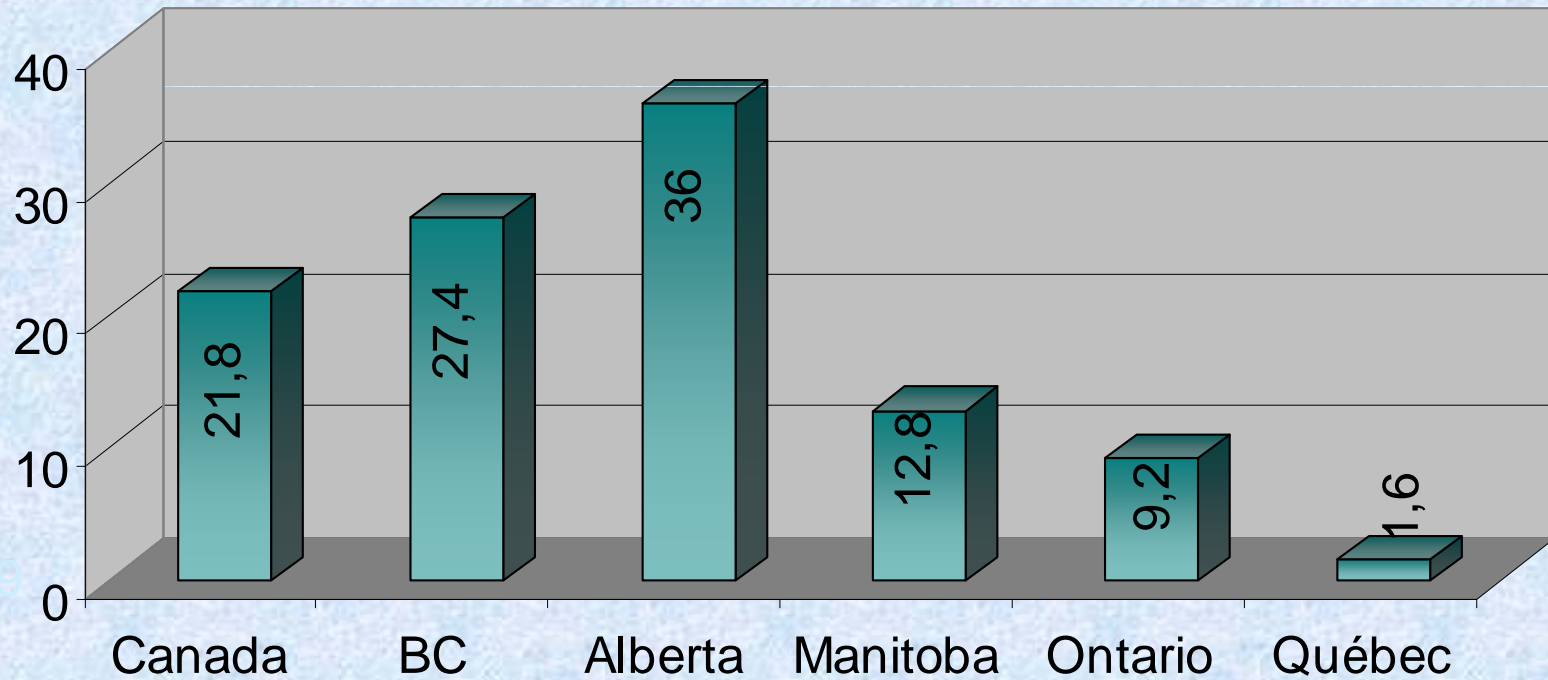
- Climate Change Action Plan target : – 6 % under 1990 in 2012
- Energy Strategy : renewables, energy efficiency, conservation (8 TWH to 15 TWH)
- Public Transit Investments
- Green Fund
- Carbon Levy : 200 M\$/annum

Quebec Climate Change Strategy



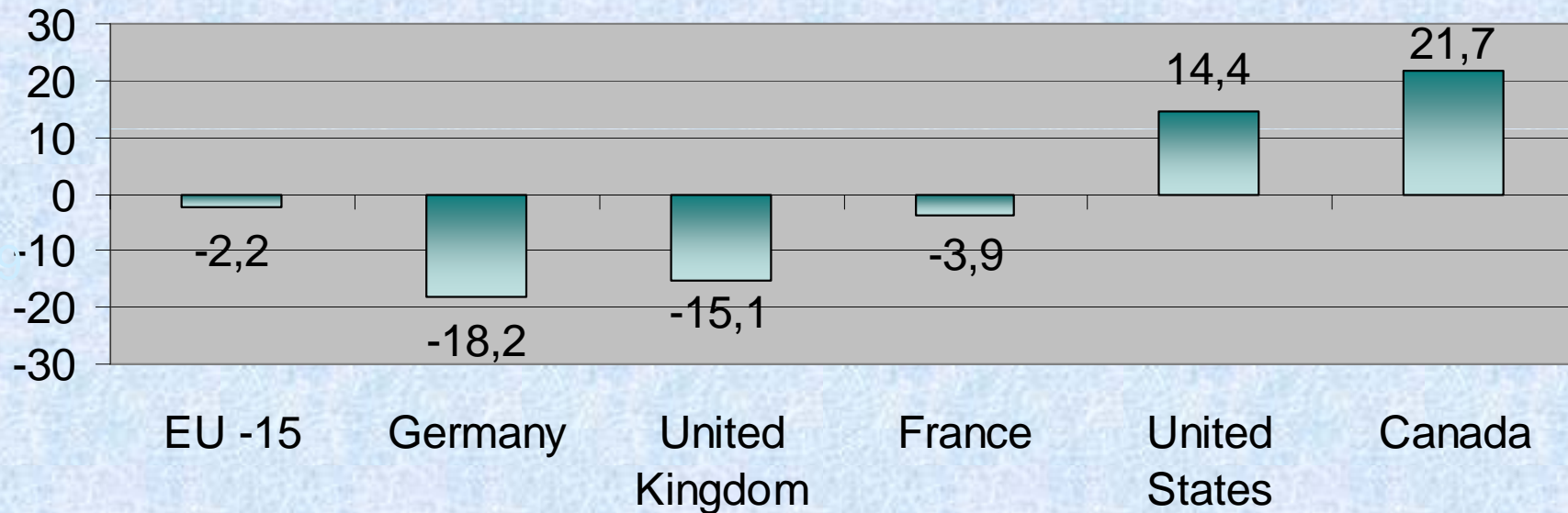
GHG Emissions Trends in Canada

Canada's GHG Emission Variations between 1990 and 2006
(percentage)



GHG Emissions Trends

European Union's GHG Emission Variations between 1990 and 2006
(percentage)



Source : UNFCCC (2008)

Carbon Market Approach

- Comprehensive Approach : contributions from most sectors of the economy
- Price Signal
- Flexible Approach
- European Union system is a success

North American Regional Markets

- **Regional Greenhouse Gas Initiative**
- **Midwestern Greenhouse Gas Accord**
- **Western Climate Initiative**
- **3 Existing Trading Platforms :**
 - **Chicago Climate Exchange**
 - **Green Exchange**
 - **Montreal Climate exchange**

US Federal Climate Action

- Action on Several Fronts in 2009
- Waxman-Markey Act passed in June
- Senate Cap-and-Trade Bill: This Year?
- The New Administration : C.C. is a serious issue
- EPA : GHG registry proposed regulation
- US Has Resumed its Proactive Involvement in International Climate Policy negotiations

Canadian Federal Climate Action

- GHG emissions continuously on the rise
- 2006-2009 : Two GHG Regulatory frameworks proposed, but no decision.
- 2009 Proposed Offsets Program, but decision has yet to come.
- Interest in North American carbon market
- Announcements in the Fall of 2009

Future Developments

- North American Regional Programs Will Continue Their Action
- Adoption of a Cap-and-Trade Bill by US Senate Would Have a Huge Impact :
 - On GHG emissions
 - On Regional Programs
 - On Canadian Federal Action
- Successful Outcome of Copenhagen Conference is Crucial to North American Federal Climate Action Developments

Further Information

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Traditional Approach

- Does not produce enough reductions to curb GHG emission slope
- At best, it can stabilize emissions level
- Does not surrender sufficient reductions to meet UNFCCC and Kyoto Protocol targets
- Kyoto Protocol allows use of economic instruments such as clean development mechanism and emission trading