

**Alberta**

Freedom To Create. Spirit To Achieve.

# Ports-to-Plains Alliance 2010 Energy Summit

Honourable Iris Evans  
Minister of Alberta International and  
Intergovernmental Relations

Government  
of Alberta

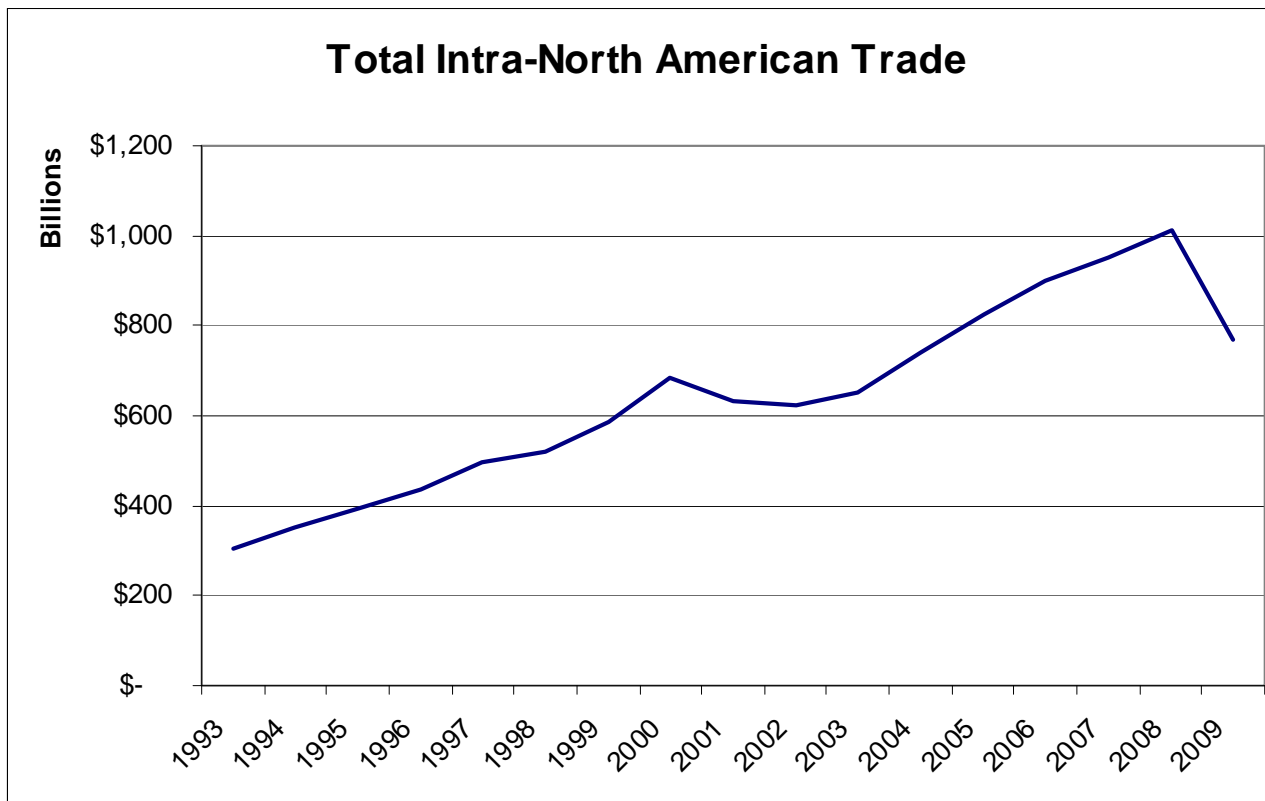
# 1. North American Partnership

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## United States and Canada

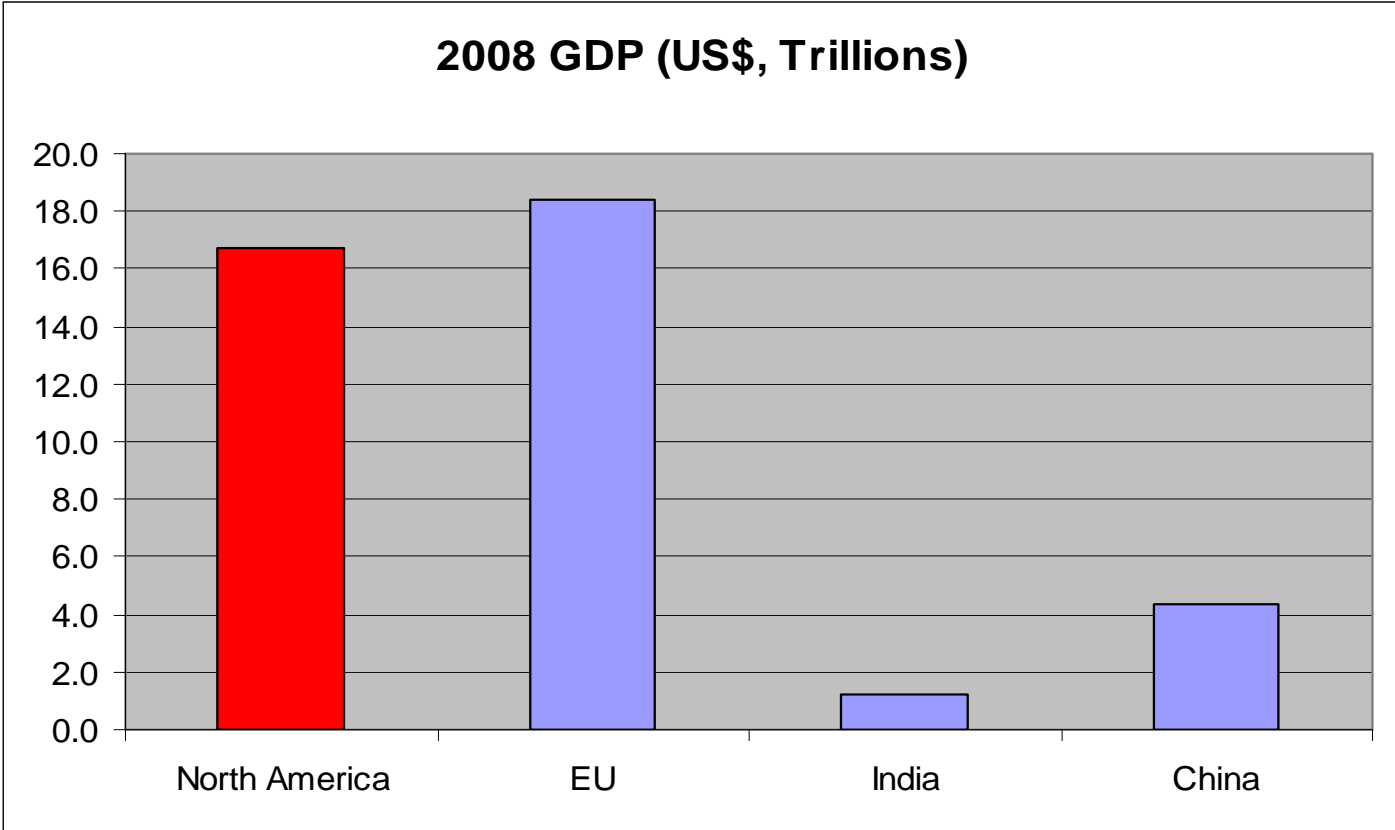
- History of economic and political cooperation
- Sustaining the relationship
- Importance of partnership and collaborative forums

## 2. North America – Trade



**Since 1993,  
total trade  
between  
NAFTA  
partners has  
increased  
240%**

# 3. North America – Global Context



## 4. Ports-to-Plains

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### Mission:

- *A grassroots alliance of communities and businesses whose mission is to advocate for a robust transportation infrastructure to promote economic security and prosperity throughout North America's energy and agricultural heartland.* ([www.portstoplains.com/Mission.aspx](http://www.portstoplains.com/Mission.aspx))

### The Bottom Line:

- To make North America more globally competitive

# 5. Increasing our Competitiveness

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- Build on our strengths
- Safe and secure energy supply
- Develop new opportunities
  - Enhanced oil recovery and new extraction techniques
  - New technologies that protect the environment

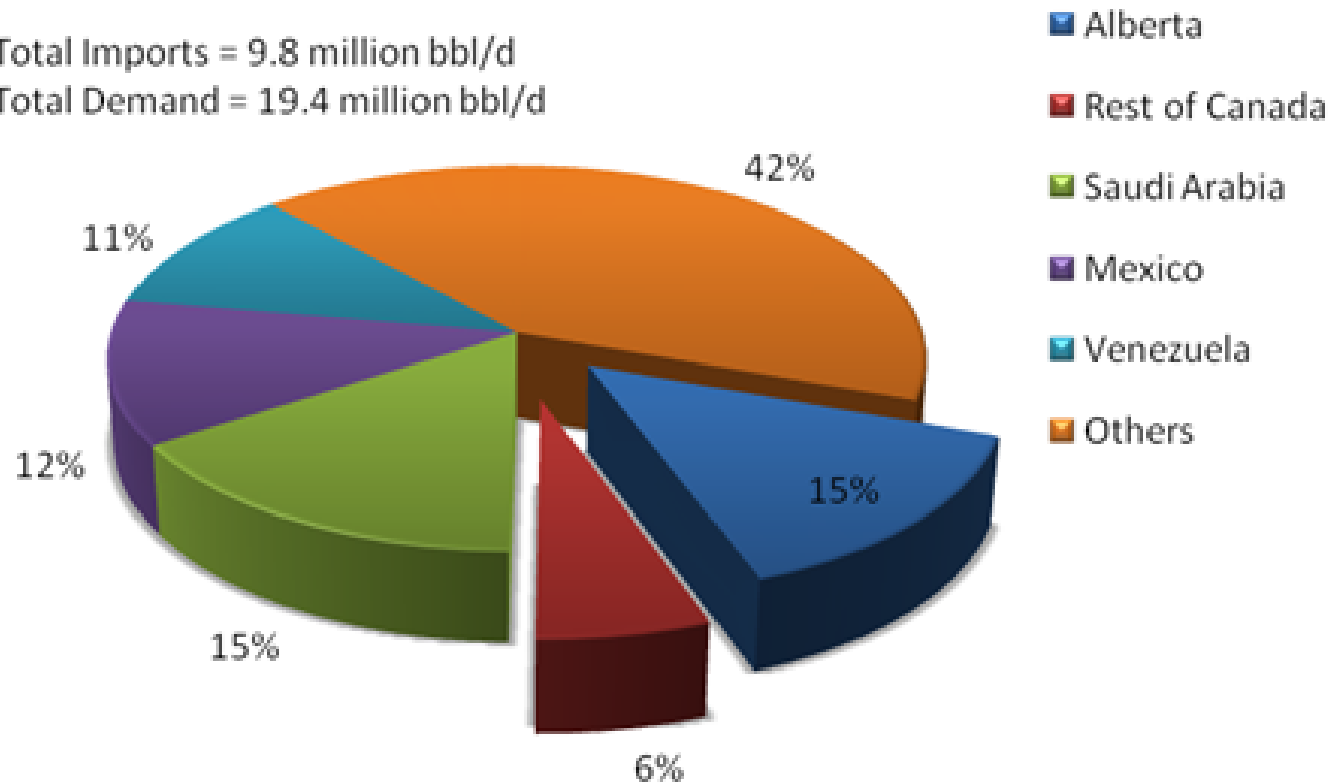
## 6. Changing Global Energy Landscape

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- We are at a crossroads in the history of energy development.
  - Drive towards cleaner energy.
  - Balance between energy security, economic prosperity and environmental responsibility.

# 2008 U.S. Crude Oil Imports by Place of Origin

Total Imports = 9.8 million bbl/d  
Total Demand = 19.4 million bbl/d



In 2008, the United States imported 21% of its crude oil from Canada, 15% of which came from Alberta.

*Note: Totals do not add up to 100% due to rounding*

# Energy Development in Alberta



CANADA

USA

MEXICO

ALBERTA

• High Level

Fort McMurray •

• Peace River

• Grande Prairie

Edmonton ○

• Jasper

• Red Deer

Banff •

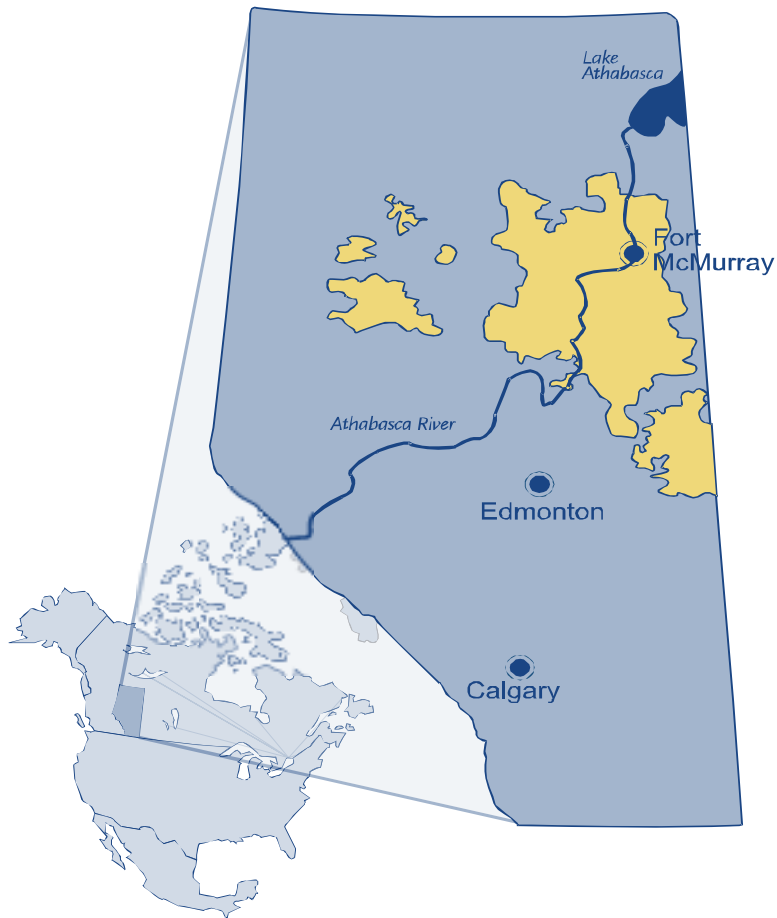
• Calgary

Medicine Hat •

• Lethbridge

# 7. Alberta's Oil Sands

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- Oil sands deposits underlie 54,903 square miles.
- Mineable deposits = 1,853 square miles (about 1.25% of Alberta's Boreal forest area).
- Land disturbed to date for mining = about 232 square miles.
- Oil is extracted through surface mining or enhanced oil recovery processes.



## 8. Oil Sands: Surface Mining

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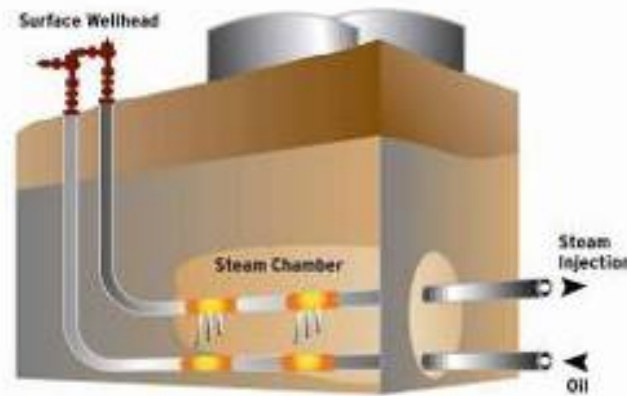
### Surface Mining:

- 55% of current oil sands production
- Extraction process separates bitumen from tailings

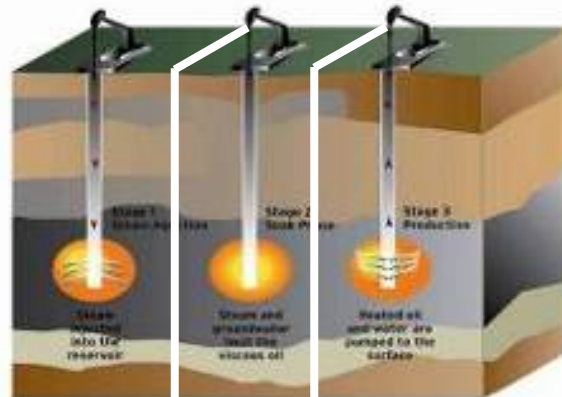


# 9. Oil Sands: In Situ Recovery

Steam-Assisted Gravity Drainage



Cyclic Steam Process



In Situ Recovery:

- 80% of resource
- 45% of production
- No tailings ponds
- No water from the Athabasca River

# Oil Sands: In Situ Recovery

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Courtesy of OPT/Nexen:  
The Long Lake Project'

# 10. Alberta's Energy Vision

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- Provincial Energy Strategy
  - Clean energy production, wise energy use, and sustained economic prosperity
- 20-year Oil Sands Strategy
  - Economic development
  - Environmental stewardship
  - Innovative, responsible and collaborative development amongst all stakeholders
  - Clean, healthy and vibrant communities

# 11. Environmental Responsibility

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## a. Legislated Emissions Targets

- Only jurisdiction in North America with mandatory reduction targets for large emitters
- Emitters contribute to a clean energy technology fund

## b. Water for Life Strategy

- \$600 million invested to date to champion a safe, secure drinking water supply

## c. Land Use Framework

- Industry required by law to achieve project reclamation requirements as a condition of further development

# Oil Sands Reclamation: Before and After

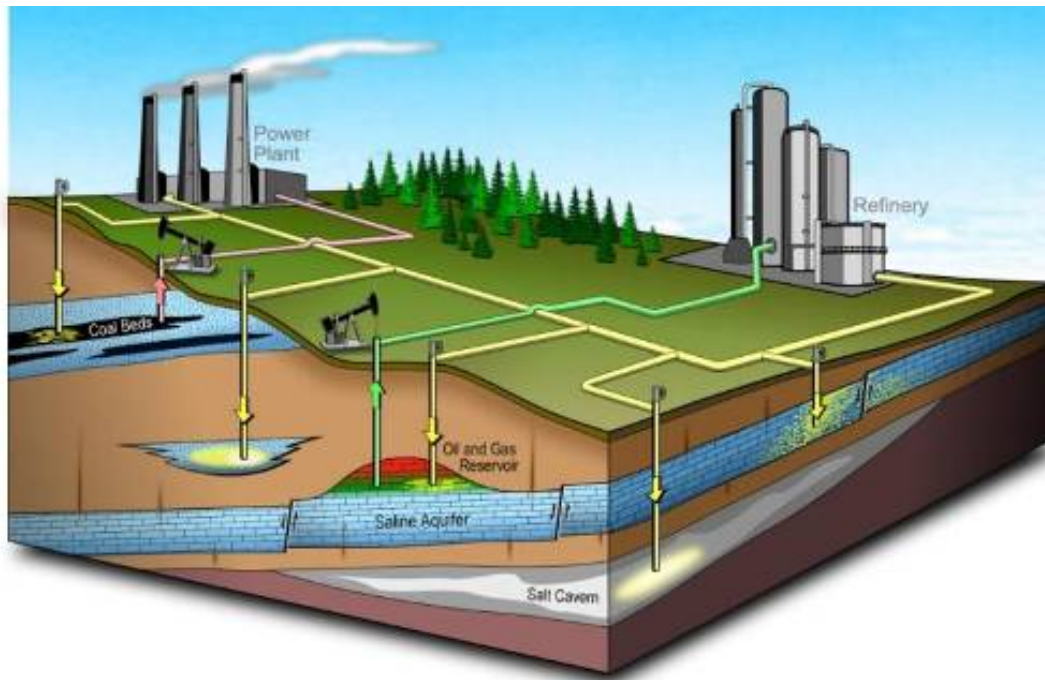
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# 12. Environmental Responsibility (cont.)

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## d. Carbon Capture and Storage



- Invested \$2 billion to develop 4 large-scale CCS projects
- Goal is to substantially reduce emissions
- Value-added opportunities

# 13. Environmental Responsibility (cont.)

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## e. Advancement of New Technology

- Collaboration between government, industry, academic and research institutes
- Clean Energy Technology Fund



# 14. Economic Impact of the Oil Sands

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- \$1 invested in the oil sands creates about \$9 worth of economic activity
  - One-third is generated outside Alberta
- Job creation
- Training of skilled workers
- Increased demand for services and supplies that support oil sands activities

Source: "The Impacts of Canadian Oil Sands Development on the United States' Economy". Canadian Energy Research Institute, October 2009.

# 15. Economic Impact – US Output and GDP

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## Impact of Alberta Oil Sands development on the U.S. Economy

- Increase in U.S. output (\$US):
  - 2010 = \$23 billion
  - 2015 = \$69.2 billion
  - 2020 = \$78.5 billion
  - 2025 = \$80.9 billion
- Change in U.S. GDP (\$US):
  - 2010 = \$11.5 billion
  - 2015 = \$34 billion
  - 2020 = \$40.4 billion
  - 2025 = \$42.2 billion

Source: "The Impacts of Canadian Oil Sands Development on the United States' Economy". Canadian Energy Research Institute, October 2009.

# 16. Economic Impact – U.S. Jobs

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Indirect and induced impacts of Canadian oil sands development and production will result in employment increases across the U.S. Incremental employment is estimated to be (in person years):

- 2009-2010 = 172,000
- 2011-2015 = 343,000
- 2016-2020 = 88,000
- 2021-2025 = 22,000

Source: "The Impacts of Canadian Oil Sands Development on the United States' Economy". Canadian Energy Research Institute, October 2009.

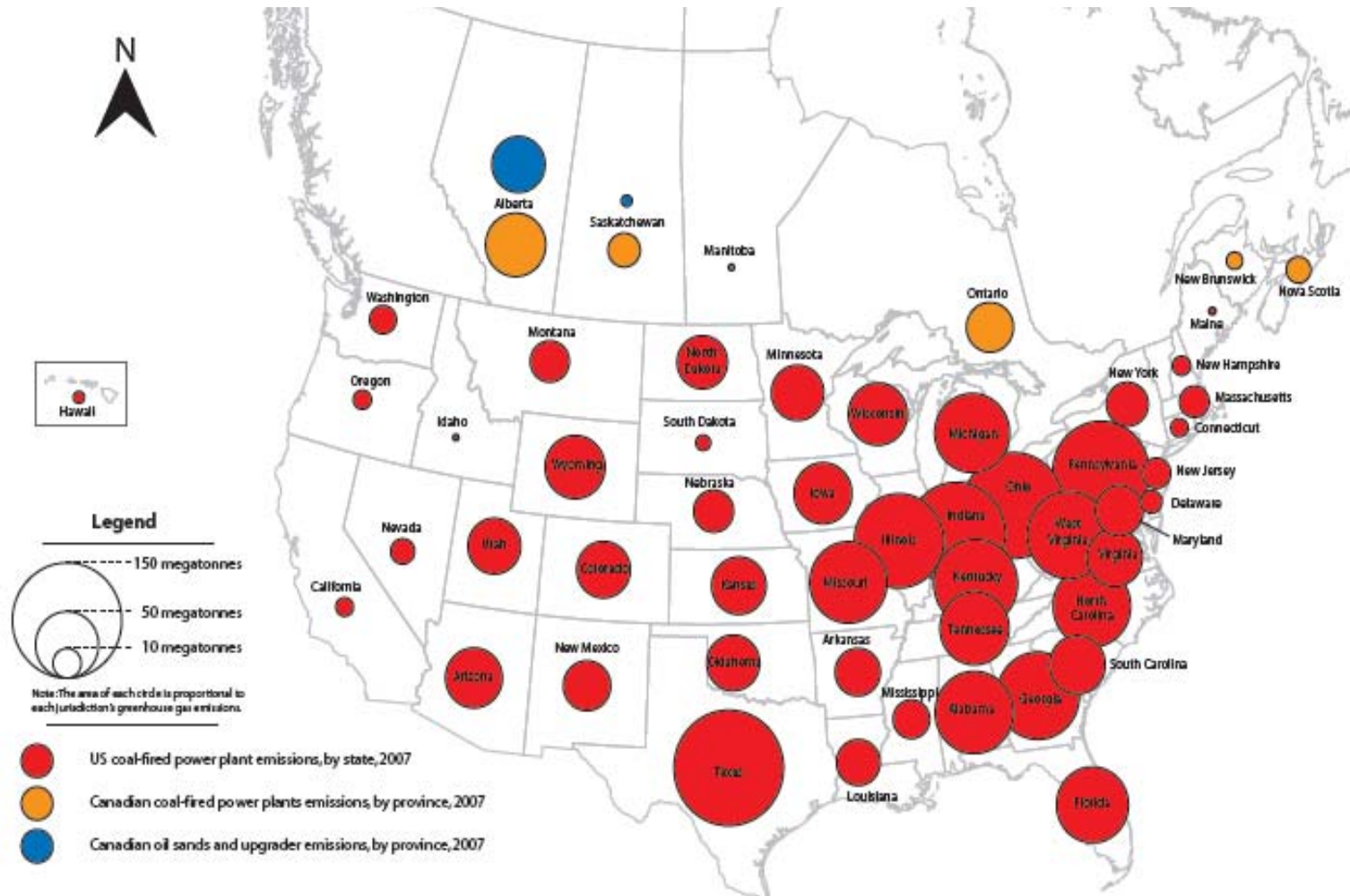
# 17. Economic Impact - Colorado

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- Increase in **Colorado** output (\$US):
  - 2010 = \$374 million
  - 2025 = \$1359 million
  - Annual Average = \$1015 million
- Change in **Colorado** GDP (\$US):
  - 2010 = \$198 million
  - 2025 = \$740 million
  - Annual Average = \$542 million
- Incremental **Colorado** employment (person years):
  - 2009-2010 = 3000
  - 2011-2015 = 6000
  - 2016-2020 = 1700
  - 2021-2025 = 500

Source: "The Impacts of Canadian Oil Sands Development on the United States' Economy". Canadian Energy Research Institute, October 2009.

# 18. A Shared Challenge



# 19. Moving Forward in an Integrated Energy Market

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- We have a long way to go...and we can improve
  - Willingness to integrate our thinking and act together
  - Knowledge transfer is key
  - Openness to explore new energy sources
  - Meet and beat consumer expectations
  - Inform the consumer
  - Look beyond traditional boundaries
  - Stay informed
  - Watch the competition

# Thank You