



Climate Change Central

Climate Change Action in Alberta and Beyond

Suite 100, 999 - 8th St. SW Calgary, Alberta, Canada
403-517-2700 | info@climatechangecentral.com
www.climatechangecentral.com



BACKGROUND

- A not-for-profit private-public partnership
- Core staff of 20 in Calgary and Edmonton
- Multi-stakeholder board



IMPLEMENTING ROLE

- Leadership
 - encourage action in Alberta
 - develop partnerships and alliances
- Strategic Intelligence
 - identify priorities and policy options
 - assist with technology and market opportunities
- Outreach
 - increase public awareness
 - communicate Alberta's accomplishments and solutions available



PROGRAM AREAS

- **CLEAN ENERGY**
 - Energy Efficiency and Conservation
 - **CLEAN AIR**
 - Emissions Trading and Offset Development
 - **CLEAN TECHNOLOGY**
 - Technology Demonstration, Piloting, Promotion
- and across all programs:
- Consumer and Corporate Outreach
 - Enabling Stewardship



Action on Climate Change

- Regulatory action on Carbon
 - Focus on CO₂e
- Regulatory action on Energy and Carbon
 - Focus on energy sources (low-carbon)
 - Performance standards for efficiency
- Voluntary action support
 - Consumer incentive programs
 - Public education and outreach



Action in Alberta



- Specified Gas Emitter Regulation
 - Regulated intensity based targets
 - Financial penalties for non-compliance
 - Various methods for compliance (reductions, offsets, emissions management fund)



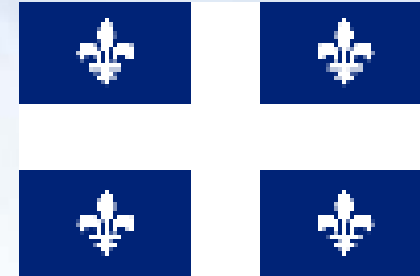
Action in Alberta



- Carbon Capture and Storage (139Mt)
- Efficiency Improvements (24Mt)
 - Consumer programs and incentives
 - EE standards in building codes
 - Support for municipalities
- Greening Energy Production (37Mt)
 - Carbon capture and storage
 - EE improvements in oilsands



ABA – Quebec (Action Beyond Alberta)



- Quebec – Carbon Tax
 - Implemented Oct. 1, 2007
 - Per-litre levy of \$0.008 for gasoline, \$0.009 for diesel, \$0.0096 for heating oil and \$8.00 per tonne of coal
 - Tax revenues are directed to GHG reduction initiatives (transit)
- Consumer programs



ABA - Ontario



- Energy Efficiency Act
 - Legislative requirements for 54 consumer products
- Standard offer program
 - Support for low-carbon energy supply
- Building Codes
 - Regulated efficiency performance (pending)
- Consumer Programs



ABA - Manitoba



- **Kyoto Commitment**
 - 1st jurisdiction in North America to legislate its Kyoto commitment
 - Target for 2012 (3 Mt)
 - Focus on vehicles and buildings
- **Commercial and Consumer Incentives**
 - Delivered by Manitoba Hydro



ABA – British Columbia

- Carbon Tax – July 1st, 2008
 - \$10/t CO₂e, rising by \$5/t annually
- Low-carbon fuels standard
 - Based on lifecycle analysis
- Renewable fuels standard
 - 5% in diesel by 2010
- Landfill gas capture
- Commercial & Consumer incentive programs
 - BC PowerSmart program





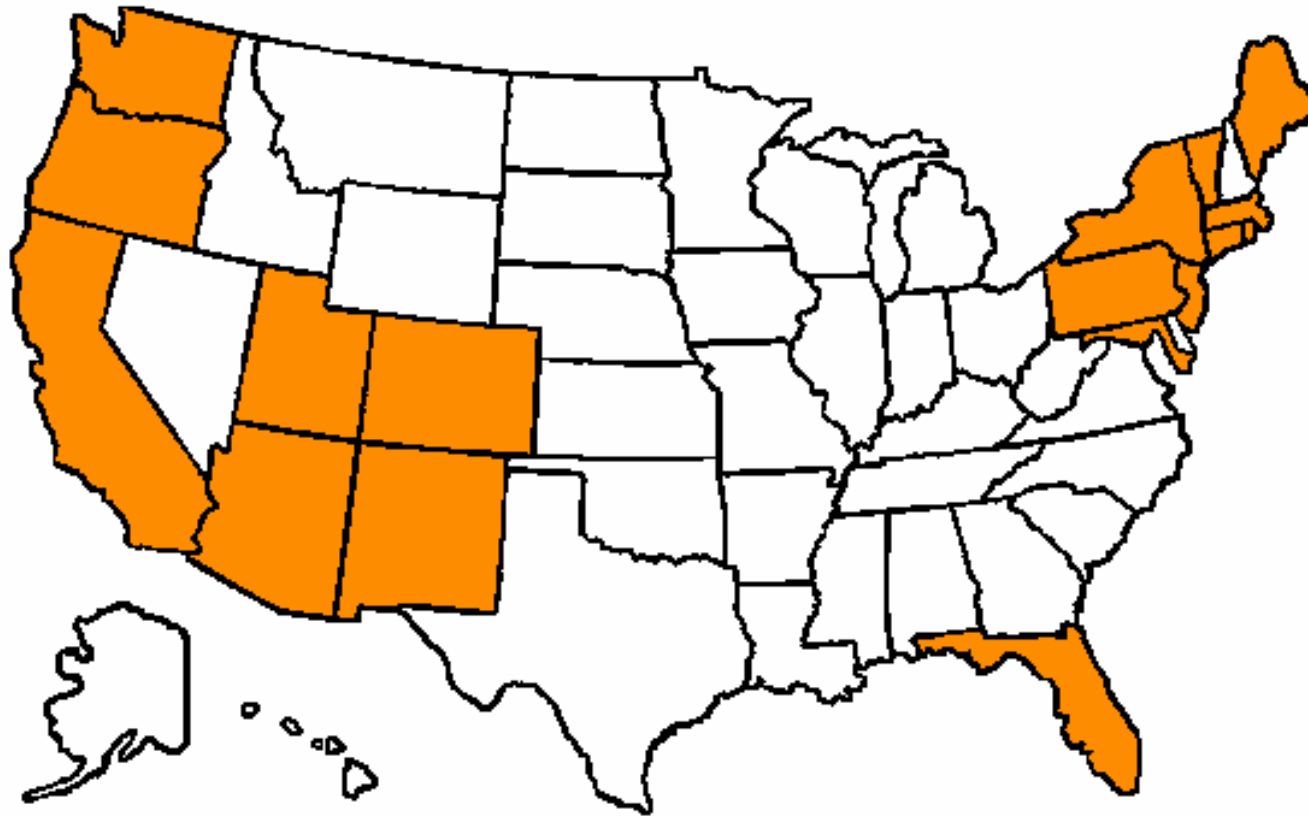
ABA – California


- *California Global Warming Solutions Act of 2006*
 - Reduce the state's greenhouse gas emissions by 25 percent by 2020
- Low-carbon fuels standard
 - Based on lifecycle emission reductions for all energy sources
- Vehicle Greenhouse Gas Emissions Standard
- Energy performance standards
 - Appliances, buildings, electronics, etc.
- Renewable Portfolio Standards
 - Supports minimum renewable content in energy supply



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Vehicle GHG Emissions Standards



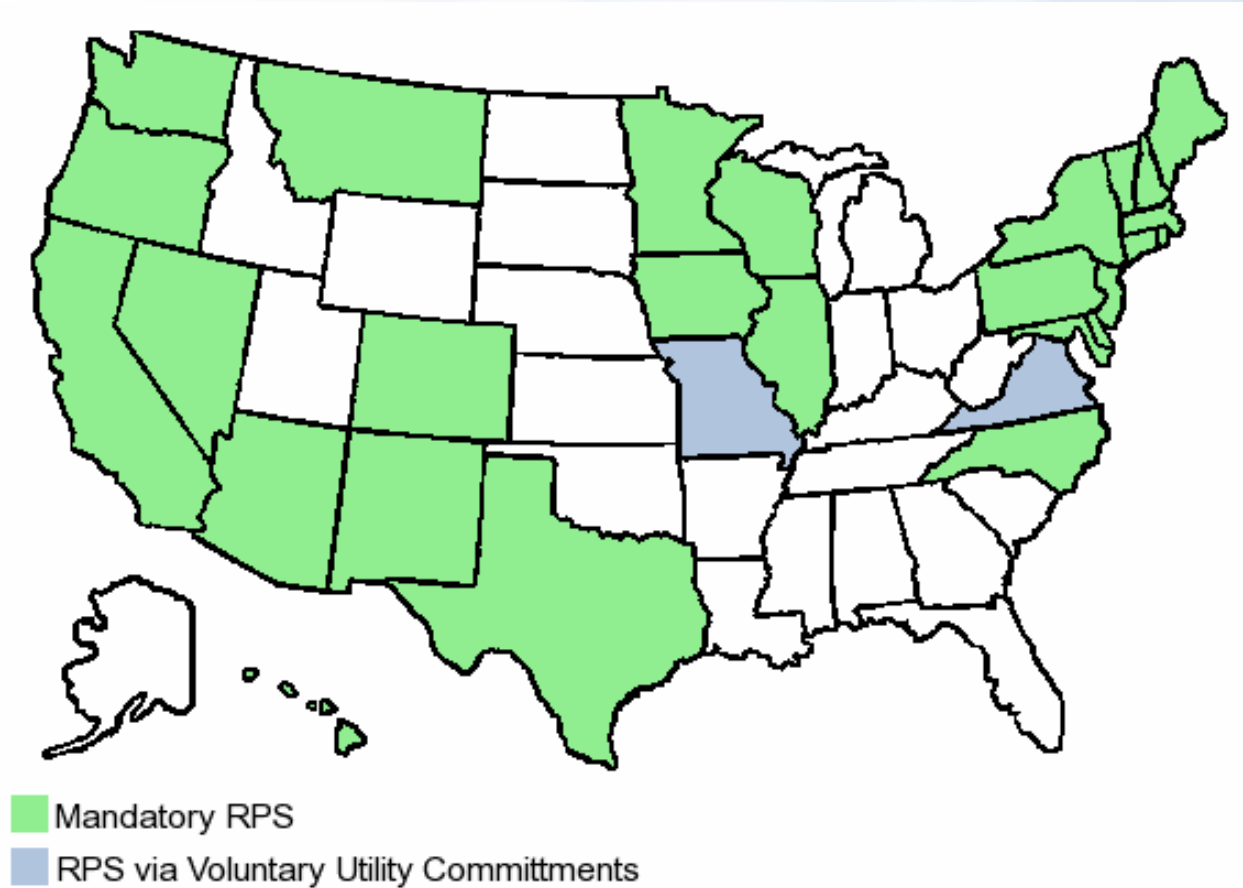
 Poised to Adopt CA Vehicle GHG Standards

Source: PEW Center on Global Climate Change

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Renewable Portfolio Standards



Source: PEW Center on Global Climate Change



ABA – Regional Greenhouse Gas Initiative (RGGI)

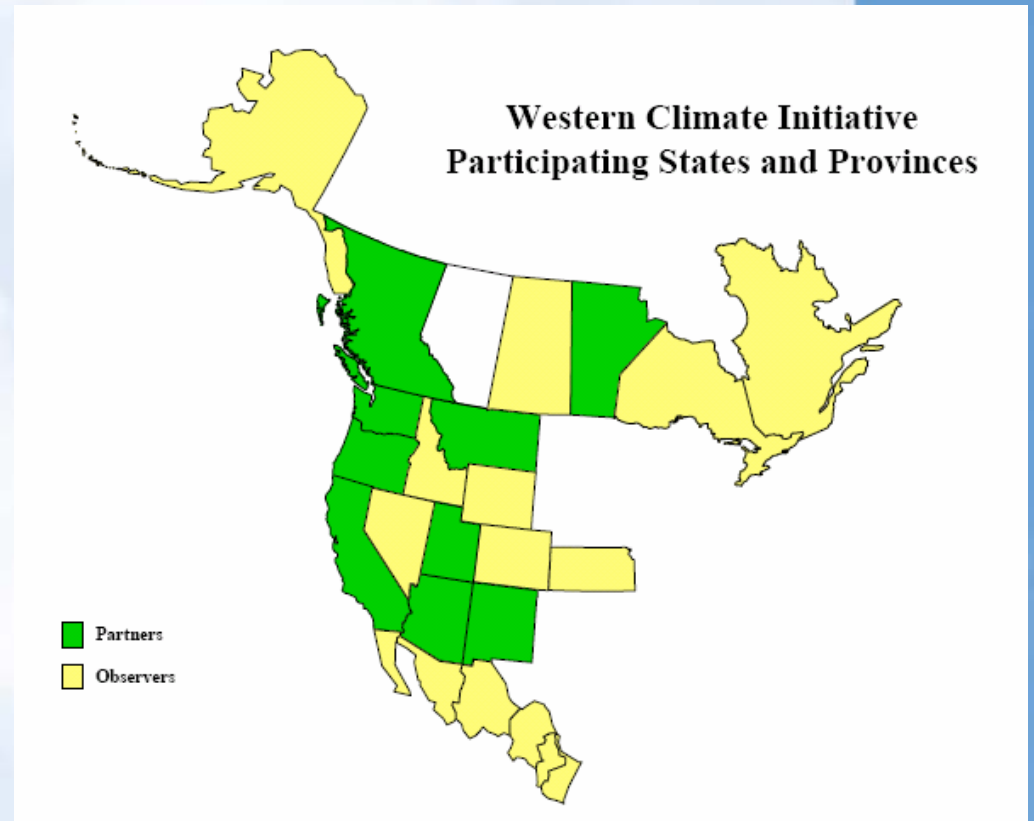


- 10 Northeastern and Mid-Atlantic states involved
 - Quebec and Ontario as observers
- Cap and Trade program for electricity generators
- Target/cap – 10% from current levels by 2018
- Start date – Jan 1, 2009
- Banking and trading of credits included to reduce price volatility



ABA – Western Climate Initiative

- Collaborative group focused on GHG reductions
- Cap and trade program under development
- Program details are due Aug, 08
- Will likely link with other programs (RGGI)





ABA – U.S. Federal



- Lieberman-Warner Climate Security Act
 - First legislation approved by full Congressional committee
- Cap and Trade program
- Includes complementary policies
 - Low-carbon fuel standard, energy efficiency
- Targets
 - 19% reduction from 2005 by 2020
 - 70% reduction from 2005 by 2050



ABA - Canada



- Target - 20% reduction by 2020
 - Intensity based target
- Regulated emission reductions for industry
 - Domestic offset system
 - Technology fund
 - Clean Development Mechanism
- Regulated tailpipe emissions for vehicles
 - 2011 model year (voluntary agreement expires)
- EE standards for appliance and electronics



In Summary

- Action on Climate Change does not happen in isolation
- Action is moving from the voluntary to the regulatory
- Many common threads...



Common Threads

- Carbon Taxes
- Emission Caps
- Market based systems (cap-and-trade, offsets, etc.)
- Low-carbon fuel standards
- Energy efficiency measures
- Renewable energy targets
- New Technology



Final Thoughts

- This just the start...
- There are no silver bullets, all the mechanisms highlighted will be required
- Alberta has opportunity to lead
 - Offsets, CCS, technology



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Questions?

John Rilett, Director

jrilett@climatechangecentral.com

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