



# Programs Supporting Renewable and Clean Energy Development in Canada

**The International Economic Forum of the Americas  
Toronto Forum For Global Cities**

**Presented by:** John Goetz, Energy Partner  
**Assisted by:** Julie Bedford, Energy Associate  
Sheliza Ladha, Articling Student

# Addressing Climate Change

- Past 18 months has seen a dramatic shift away from comprehensive federal climate change programs in the U.S. and Canada
- Canada announced they would abandon *Turning the Corner* plan and follow the U.S. Cap-and-Trade Plan
- U.S. and Canada both committed to Copenhagen Accord targeting 17% reductions by 2020
- American Power Act Bill, successor to the previous Congress Climate Change bill, unable to pass in the Senate
- Obama announced after mid-term election that he would be looking for solutions other than Cap-and-Trade to address U.S. emissions
- Now that the U.S. is not proceeding, what will Canada do?

# Addressing Climate Change

- EPA planning emission reduction regulation in 2011
- EPA has not ruled out introducing its own cap and trade scheme, although there is a legal debate as to whether or not it has the authority to do this
- EPA may force legislative change if it is successful in implements a regulatory scheme that cannot address political and economic issues like the legislature can
- Challenges to EPA authority to regulate emissions have thus far been unsuccessful, but are ongoing

# Local and Regional Emission Reduction Programs and Regulations

- Western Climate Initiative (WCI) on track to start in 2012
- Initial target is to cut emissions to 15% below 2005 levels by 2020
- WCI includes a cap-and-trade program to facilitate emission reductions
- Of 11 WCI Partner jurisdictions, appears that California, New Mexico, B.C., Ontario, Quebec are on course to start cap-and-trade program in 2012, Manitoba intends to follow, but has work to do
- These 5 Partners represent approximately **two-thirds** of the total emissions in the WCI jurisdictions, with the Canadian provinces representing about **46%** of Canadian GHG emissions

# Local and Regional Emission Reduction Programs and Regulations

- The WCI program will initially cover large industrial emitters and include electricity delivered to the California grid
- Program will expand in 2015 to include emissions from transportation fuels, natural gas, and propane
- California recently unveiled new draft regulations for a GHG Cap-and-Trade Program pursuant to AB -32 Global Warming Solutions Act of 2006
- California voted down Proposition 23 which would have suspended AB 32 - until unemployment levels reached almost unachievable levels (< 5.5% for 4 consecutive quarters)

# Local and Regional Emission Reduction Programs and Regulations

- New Mexico announced after the recent election that it would move forward with a cap-and-trade program, but their new governor opposes the WCI
- Arizona and Utah have pulled out of the WCI cap-and-trade program, but have not withdrawn from the WCI
- There are several other states, territories and provinces that are Observers to the WCI, including Nova Scotia, Saskatchewan and the Yukon
- Canadian Partner jurisdictions comprise 79% of Canadian Population and 76% of Canadian GDP\*

\*WCI Design Summary

# Local and Regional Emission Reduction Programs and Regulations

- British Columbia has enacted several pieces of climate change legislation including:
  - GHG Reduction Targets Act and GHG Reduction (Cap-and-Trade) Act and have released draft regulations for offsets and emission trading
  - Renewable and Low Carbon Fuel Requirement Act
  - Vehicle Emissions Standards Act
- Ontario has enacted:
  - Green Energy Act which includes sweeping provisions for accelerating the development of renewable energy projects
  - Feed-in-Tariff (FIT) program has stimulated massive renewable project investment
  - Environmental Protection Amendment Act with emission reduction provisions and Greenhouse Gas Reporting Regulation

# Local and Regional Emission Reduction Programs and Regulations

- Quebec has:
  - enacted *Environment Quality Act, R.S.Q. c.Q-2*
  - Amended by Bill 42 - *An Act to amend the Environment Quality Act and other legislative provisions in relation to climate change*
  - Regulations expected to come Spring, 2011 in order to implement WCI plan in 2012
  - Renewable Energy RFP Program
    - Has stimulated massive investment in wind energy projects
    - Further RFP's are expected once government determines actual amount of expected construction under most recent RFP



# Local and Regional Emission Reduction Programs and Regulations

## Non-WCI Jurisdictions

### Alberta

- Specified Gas Emitters Regulation
- Requires 12% reduction in emissions intensity by large emitters
- Alberta large emitters have spent approx. \$350 million on emission compliance instruments since 2007
- Program has seen \$187 million accumulate in the Climate Change and Emissions Management Fund and approximately \$88 million on offsets
- Alberta has committed \$2 Billion to Carbon Capture and Sequestration with the objective of reducing emissions intensity by 5 million tonnes/yr by 2015 and 170 million tonnes/yr. by 2050

# Local and Regional Emission Reduction Programs and Regulations

## Non-WCI Jurisdictions

### Saskatchewan

- Bill 126 The Management and Reduction of Greenhouse Gases Act passed and draft regulations expected in early 2011
- Similar to Alberta's intensity based program, with lower initial reduction targets
- Green Options Partners Program
  - Power Call for Wind, solar, flare gas, low impact hydro, biomass
  - 20 year standard offer purchase agreements – up to 30 – 40 year contracts for low impact hydro

# Local and Regional Emission Reduction Programs and Regulations

## Non-WCI Jurisdictions

### Prince Edward Island

- RFP for Wind and Biomass
- 20 year standard offer power purchase agreement
- Estimated Capital Cost over \$260 million

# Local and Regional Emission Reduction Programs and Regulations

## Federal Programs

- Sustainable Development Technology Canada
  - Fund/Loan Program
  - NextGen Bio Fuels Fund (\$500 million)
  - Sustainable Development Tech Fund (\$550 million)
    - Repayment not required
    - Completed October 20, 2010
  - Green Infrastructure Fund (\$1 billion over 5 years)
    - Green energy generation and transmission infrastructure, reduced GHG emissions, carbon transmission and storage infrastructure
    - \$779 million has been committed

# U.S. Programs in Comparison

## Federal Programs

- **American Recovery and Reinvestment Act**
  - Wide Variety of Tax incentives, grants and loans
  - Approved over \$27 billion in Energy efficiency and renewable energy research and investment
  - Investment Tax Credits and Production Tax Credits have had a major impact on the development of Wind, Solar, hydro, biomass and other renewable energy projects

# Future for Cleantech

## Cleantech and Renewable Energy Development

- No question that government programs and support have the ability to accelerate investment, research and deployment of renewable energy and cleantech projects
- CCS cannot be implemented on a large scale basis without government support or a significant price on carbon
- Cleantech industry is aware that the cost of clean energy technologies must come down in order to be deployed on a wide-scale basis
- Technological advancements are being made in both wind, solar and small hydro and are expected to continue to do so
- Wide scale adoption expected to contribute to ongoing cost improvements, similar to what we've seen in the computer and other technology sectors
- Jurisdictions that invest in and foster cleantech and renewable energy will be the jurisdictions that lead and prosper in the new clean/green economy to create new employment and new wealth