

Ontario's Developing Cap-and-Trade Program for Greenhouse Gas Emissions

Ontario Ministry of the Environment

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Air & Waste Management Association
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Presentation Outline

- North American Context for Ontario's Climate Change Activities
- Laying the Foundation: GHG Cap-and-Trade Program Progress to Date
- Overview of Ontario's Greenhouse Gas Emissions Reporting Regulation
- Proposed Amendments to the Reporting Regulation
- The Path Forward

Background:

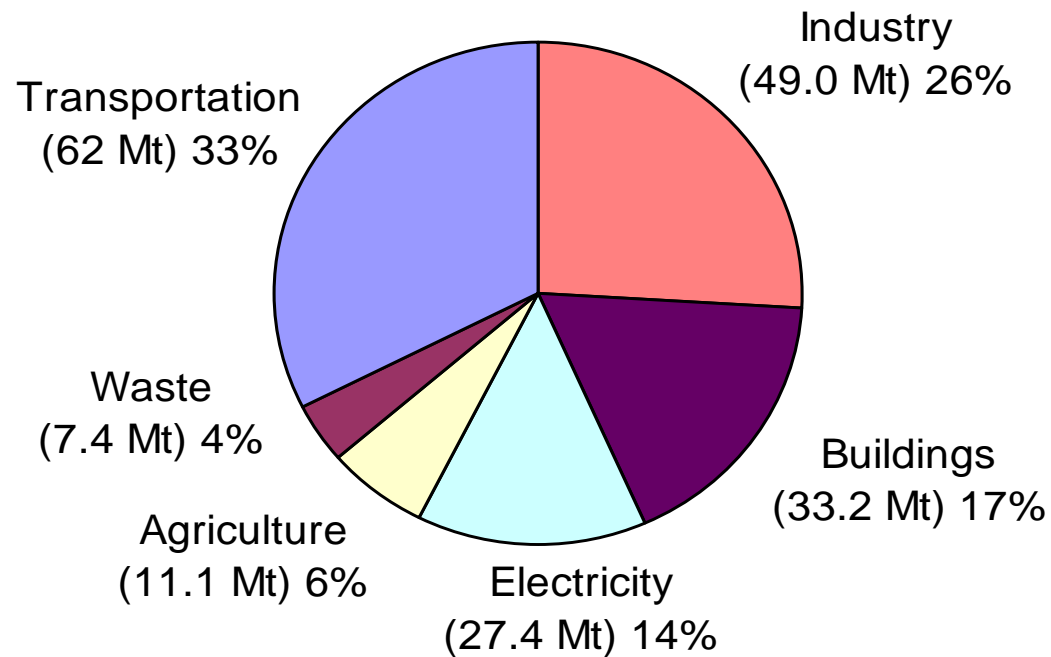
Ontario's Climate Change Action Plan

- Ontario's Climate Change Action Plan sets out aggressive GHG emission reduction targets of 165 Mt or 6% below 1990 levels by 2014; 149 Mt or 15% below 1990 levels by 2020; and 80% below 1990 levels by 2050.
- Ontario is undertaking a variety of actions to achieve reduction targets:
 - Phase out of coal fired electricity generation by end of 2014
 - Green Energy Act to promote investment in renewable energy and increase conservation
 - Significant investments in public transit and moving ahead with over \$9 billion in priority rapid transit projects identified in the Metrolinx Regional Transportation Plan
 - The protection of green space (Places to Grow Act and Far North Act including protection of boreal lands)
 - Development of provincial **Cap-and-Trade Program** that can link to other trading systems

Ontario Emissions

Total Emissions (2008): 190Mt

Industry and Electricity: 40%



North American Context for Ontario's Cap-and-Trade Development

U.S.

- Congressional progress on broad energy and climate legislation has stalled
- November 2, 2010: federal midterm elections – Republican majority in House
 - President Obama acknowledged cap and trade unlikely in next 2 years, but affirmed U.S. EPA authority to regulate GHGs
- U.S. EPA is developing rules / performance standards for large emitters to be implemented in 2011 (unless pre-empted or delayed by Congress)

Canada

- Alignment with the U.S. (cap and trade and/or performance standards)
- Propose performance standards on new and end-of-life coal-fired electricity generators to take effect in 2015
- Willing to negotiate equivalency agreements with provinces regulating GHGs
 - BC, SK and NS have signed Agreements in Principle with Canada
 - Canada and QC preparing a protocol to guide collaboration on climate change matters

North American Context for Ontario's Cap-and-Trade Development

Western Climate Initiative (WCI)

- Detailed Program Design recommendations released July 27, 2010
- Core Partners (BC, QC, California, New Mexico) releasing regulations 2010 / early 2011
 - New Mexico regulation approved Nov. 2, 2010; implementation conditional on participation by other jurisdictions
 - California draft regulation released Oct. 28, 2010; Ballot initiative to delay cap and trade failed
 - BC released consultation papers (cap and trade and offsets) Oct. 22, 2010

Regional Greenhouse Gas Initiative (RGGI)

- North-eastern states established electricity cap and trade in 2009
- Expansion to other industry sectors and transportation (LCFS) under review

Three Regions

- WCI, RGGI and MGGRA (Midwestern states) are exploring areas of common interest including linking, offsets and complementary measures

Laying the Foundation: GHG Cap-and-Trade Program Progress to Date

Collaborative Work

- Ontario is partnering with other jurisdictions to pursue common approaches to cap-and-trade and facilitate linkages
 - Memorandum of Understanding with Quebec
 - Member of WCI
 - Observer in RGGI and MGGRA
 - Participating in Three Regions discussions
 - Member of The Climate Registry
 - Member of the International Carbon Action Partnership

Laying the Foundation: GHG Cap-and-Trade Program Progress to Date

Legislative/Regulatory Framework Development

- Existing authority for cap and trade under *Environmental Protection Act* (used for Ontario's NO_x and SO₂ program)
- *Environmental Protection Amendment Act (Greenhouse Gas Emissions Trading), 2009* – expanded and clarified authority
 - e.g., with respect to distribution and use of compliance instruments, use of auction proceeds
- Consultations with industry, environmental organizations and other stakeholders ongoing since 2008
- Greenhouse Gas Emissions Reporting Regulation (O.Reg. 452/09) and incorporated Guideline filed in December 2009
 - Proposed amendments posted on Environmental Bill of Rights Registry September 10, 2010

WCI Detailed Program Design, July 2010

- Detailed Program Design (DPD) recommendations released July 27, 2010: <http://westernclimateinitiative.org/the-wci-cap-and-trade-program/program-design>
- Builds on extensive analyses and consultations since WCI release of initial design recommendations in 2008
- Design covers nearly 90% of region's emissions
- Flexible in scope and timing; acknowledges Partner jurisdictions are subject to their own legislative and administrative processes
- Serves as *starting point* for legislation/regulation in WCI Partner jurisdictions that can be linked together in a common GHG market
- See Appendix 1 for detail on specific design elements

Overview of Ontario's Greenhouse Gas Emissions Reporting Regulation

- Greenhouse Gas Emissions Reporting Regulation (O.Reg. 452/09) and incorporated Guideline filed in December 2009
- WCI Proposed Canadian reporting requirements “Harmonization of Essential Requirements for Mandatory Reporting in Canadian Jurisdictions” (Canadian ER) released September 8, 2010. They are available at: <http://westernclimateinitiative.org/public-comments/document/33>
- Proposed Amendments to O.Reg. 452/09 and Guideline posted September 10, 2010:
 - EBR Registry Number: 011-0209
 - Comment period closed October 25, 2010

Overview of Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

- Greenhouse Gas Emissions Reporting Regulation (O.Reg. 452/09) includes the following requirements:
 - Reporting for sources emitting 25,000 tonnes of carbon dioxide equivalent (CO₂e) or more per year
 - Report 2010 emissions in 2011; annual reporting thereafter
 - Use of mandatory quantification methods to quantify emissions starting for the report of 2011 emissions in 2012
 - Flexibility to use best alternative quantification methods for 2010 emissions
 - Third-party verification starting with 2011 emissions
 - Emissions reports due June 1, starting in 2011
 - Verification reports due September 1, starting in 2012

Overview of Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

- The regulation incorporates a guideline that outlines:
 - Best alternative quantification methods that may be used during the first reporting year
 - Methods to be used to quantify emissions (2011 reporting year and thereafter)
- Ontario methods are either adaptations of WCI methods or U.S. EPA methods incorporated by reference
- Third-party verification requirement will be phased in
 - Allows time to build capacity in Ontario for verification in accordance with ISO 14064-3 and 14065 requirements
 - Voluntary verification in 2011 for 2010 data is encouraged

Overview of Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

- Sources emitting between 10,000 and 25,000 tonnes (smaller emitters) are not required to report at this time
 - The Ministry is encouraging voluntary reporting by these sources to prepare for potential requirements for linking with other jurisdictions
- Fuel suppliers (e.g., transportation, residential, commercial) are not covered at this time
 - WCI will be considering methods for fuel suppliers
 - Ontario will consider incorporating fuel suppliers into the reporting regulation, taking into account a full review of both WCI methods and U.S. EPA requirements

Proposed Amendments to Ontario's Greenhouse Gas Emissions Reporting Regulation

- The proposed amendments include:
 - Adopt the latest WCI quantification methods into the Ontario guideline
 - Remove the 15,000 tonnes limit on deductions of CO₂ from biomass combustion emissions for the determination of the 25,000 tonne reporting threshold
 - Verifier submits adverse verification statements to client only
 - Add nitrogen trifluoride to the list of reported GHGs
 - Allow Ministry to request information on historical emissions

Proposed Amendments to Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

Adopt Latest WCI Quantification Methods

- Ontario's standard quantification methods would be aligned with those proposed in Canadian Essential Requirements (ERs)
- Principles of WCI's proposed Canadian ERs
 - Achieves same level of reporting accuracy in the US and Canada
 - Reliable and accurate for use in a cap and trade program
 - Suitable for use in Canada
 - Facilitate harmonization with Canadian federal reporting
- WCI also added procedures for estimating emission data for all methods
- See Appendix 2 for a high-level summary of general stationary combustion quantification requirements reflecting proposed amendments

Proposed Amendments to Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

Remove the 15,000 tonnes limit on deductions for biomass combustion emissions (s.5)

- Current Requirements
 - Facilities that generate more than 25,000 tonnes of CO₂e per year are required to report
 - For threshold purposes, up to 15,000 tonnes of CO₂e emissions from biomass can be deducted
- Proposed changes
 - Deduct *all* of the CO₂ from the combustion of biomass for the purpose of determining if a facility emits 25,000 tonnes or more of CO₂e
 - Would exempt some facilities that use mostly biomass from mandatory reporting and third party verification

Proposed Amendments to Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

Verifier submits adverse verification statements to their client only (s.11)

- Current Requirements
 - Verifier (Accredited Verification Body) to provide written notice to client of potential adverse verification statement (s. 11(1)(b))
 - The responsible Person (e.g., owner, operator) has 7 days to request Director review of potential adverse verification statement (s. 11(3))
 - If the Person takes no action, the Verifier shall prepare an adverse verification statement and submit it to the Person and the Director by August 24th (s.11(6))
- Proposed changes
 - If the Person fails to make a request to the Director within 7 days and does not submit a revised emission report, the Verifier shall prepare an adverse verification statement and submit to the Person (s.11(6))
 - Verifier is only required to submit an adverse verification statement to the Person rather than also to the Director
 - Address potential verifier concerns over verifier-client relationships

Proposed Amendments to Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

Add nitrogen trifluoride (NF₃) to the list of GHGs

- Revises the list of greenhouse gases under O. Reg. 452/09 to include NF₃
- Aligns with WCI Detailed Program Design
 - NF₃ is a covered GHG under WCI
 - Link: <http://westernclimateinitiative.org/the-wci-cap-and-trade-program/program-design>
- NF₃ is included in the U.S. EPA reporting requirements
 - Used in the electronics manufacturing sector

Proposed Amendments to Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

Allow Ministry to request information on historical emissions reports (s.5.1(1))

- Intended to facilitate sharing of data submitted to the federal government
Where Environment Canada does not possess the information, Director may request:
 - Copies of submissions made to the federal government under sections 46 or 71 of CEPA
 - Historical emissions that are quantified with:
 - Information that is in custody, control or can be reasonably obtained by the facility
 - Use the standard quantification methods (SQM) if possible
 - Otherwise, use best alternative quantification method or a method accepted by the Director

Proposed Amendments to Ontario's Greenhouse Gas Emissions Reporting Regulation (cont'd)

Other changes

- Definitions (s.1)
 - “Distillate fuel oil” to link to the guideline
 - “General stationary combustion” moved to the guideline to facilitate the exemptions for portable and emergency equipment emissions
- Application (s.2.(1))
 - “HFC-23 Destruction” added to HCFC-22 production (source number 12) to match name of quantification method

Potential Future Guideline Amendments

Other WCI Methods to be Considered

- Electricity imports
- Electricity transmission (SF₆ from electrical equipment)
- Mobile (non-road) equipment on-site
- Natural gas transmission, distribution and storage

Next Steps

- Finalize amendments to the regulation and guideline
- Continue to work with WCI Partners on refinements and new methods
- Continue to work with the federal government and provinces toward single-window GHG reporting (further to CCME ministers commitment on October 29, 2009)

Links and Contacts

- Proposed Amendments to Greenhouse Gas Emissions Reporting Regulation
 - EBR Registry Number: 011-0209
- <http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTEwMDQ2&statusId=MTY1MTgy&language=en>
- Contact:
 - Eric Loi
 - Senior Engineer
 - Cap and Trade Section
 - Air Policy Instrument and Program Design Branch
 - Ontario Ministry of the Environment
 - 77 Wellesley Street, 10th floor, Toronto, Ontario, M7A 2T5
 - Phone: (416) 314-1700
 - Fax: (416) 314-4128
 - eric.loi@ontario.ca

Appendix 1:

Proposed WCI Design Features

Thresholds

- 25,000 metric tonnes of carbon dioxide equivalent (CO₂e) annually

Scope

- 2012: electricity, industrial and commercial combustion, process emissions
- 2015: transportation and commercial/residential/industrial fuels (below 25,000 tonne threshold)

Regional Cap

- Sum of the Partner allowance budgets, declining linearly to 2020.
- Allowance budgets based on forecasted emissions for 2012
- 2020 reduction supports economy-wide target (15% below 2005)

Allowances

- Minimum of 10% auctioning increasing to 25% by 2020
- Portion of allowances may be used for energy efficiency/renewables; R&D; reductions/sequestration in agriculture/forestry; and adaptation

Appendix 1 (cont'd): Proposed WCI Design Features

Use of Offsets

- Offsets may be used for compliance, however, the use of offsets may not exceed 49% of emissions reductions
- Offsets will be issued only for real, additional, permanent, verifiable and enforceable reductions and according to protocols adopted or recognized by Partner jurisdictions
- WCI working on offset rules and protocols
 - Protocol development - Fall 2010
 - Target release of protocols - Spring 2011
- Main opportunities for offsets lie within agriculture, forestry and waste management sectors

Appendix 1 (cont'd): Proposed WCI Design Features

Allowance Auction

- Key elements of auction:
 - Auction Format: sealed bid single round, uniform price (lowest winning bid)
 - Frequency: quarterly
 - Reserve Price: will be used (formula tbd)
 - Vintages: allowances from future and current compliance periods can be sold concurrently
 - Lot Size: 1,000 metric tonnes
 - Participant Access & Financial Assurance: open to anyone with an account and able to meet prequalification criteria
 - Information Transparency: clearing price and total number of purchased allowances will be disclosed publicly after the auction
- WCI recommendations paper will elaborate on these and other auction matters

Appendix 1 (cont'd): Proposed WCI Design Features

Market Oversight

- WCI Partner jurisdictions' goal is to ensure fair and equal access to the market, transparent operations, and a market free of manipulation
- To achieve this, WCI jurisdictions propose to:
 - Require necessary information be reported by all owners of allowances and offset certificates;
 - Encourage the use of effective trading venues; and
 - Monitor market activity and conditions.
- Collaborative analysis and information sharing among Partner jurisdictions are also recommended to ensure comprehensive monitoring.
- On April 5, 2010, WCI proposed draft recommendations on market oversight (summarized in the DPD). They are available at:
<http://www.westernclimateinitiative.org/public-comments/document/27>

Appendix 1 (cont'd): Proposed WCI Design Features

Early Reduction Allowances

- Guideline for Distributing Early Reduction Allowances released with DPD; outlines the following eligibility criteria:
 - Permanent reductions on or after January 1, 2008 and before January 1, 2012 by covered entities (in addition to 2012 budget)
 - Recognition must come from within the partner's allowance budget.
 - Project and reductions must be surplus to requirements from existing legislation, regulation, executive order, other regulatory obligations
 - Projects and reductions verifiable by a jurisdiction or third party
 - Streamlined additionality:
 - Clearly identified action or decision
 - Absolute reduction in annual average emissions and emissions intensities from levels in reference period (2005-2007)
 - Two approaches for identifying eligible projects: program authority review; application process

Appendix 1 (cont'd): Proposed WCI Design Features

Reporting

- Entities/facilities with annual emissions of 10,000 metric tons of CO₂e to report 2010 emissions (draft requirements released January 2009)
- U.S. WCI Partners' reporting requirements are harmonized with U.S. EPA Mandatory Reporting Rule for GHG emissions
 - Facility able to submit a single report satisfying both WCI requirements and U.S. EPA rule
- WCI released Canadian version of reporting methods in August 2010; Ontario consulting on guideline changes with a view to alignment
- In 2009, through the Canadian Council of Ministers of the Environment (CCME), Canada and the provinces agreed to develop single-window GHG reporting system

Appendix 2: Summary of General Stationary Combustion Quantification Requirements

Guideline Requirements	Parameter	Fuel Type and Application of CO2 Method						
		Natural gas	Fuels in Table 20-1a (distillates, LPG, etc.)	Coal	Solid biomass	MSW	Other fuels (e.g., liquid fuels, gas derived from fossil fuels, biogas)	Units >250 mmBTU/h
Quantification method type	Method 1: Emission Factors	yes	Yes	no	no	no	no	no
	Method 2: HHV Testing	yes	yes	no	yes (steam and Ef)	no	no	no
	Method 3: Carbon Content	yes	Yes	yes	yes	yes (steam and efficiency testing)	yes	yes
	Method 4: CEMs	yes	yes	yes	yes	yes	yes	yes