



Cap and Trade Program Design Options

November 2015

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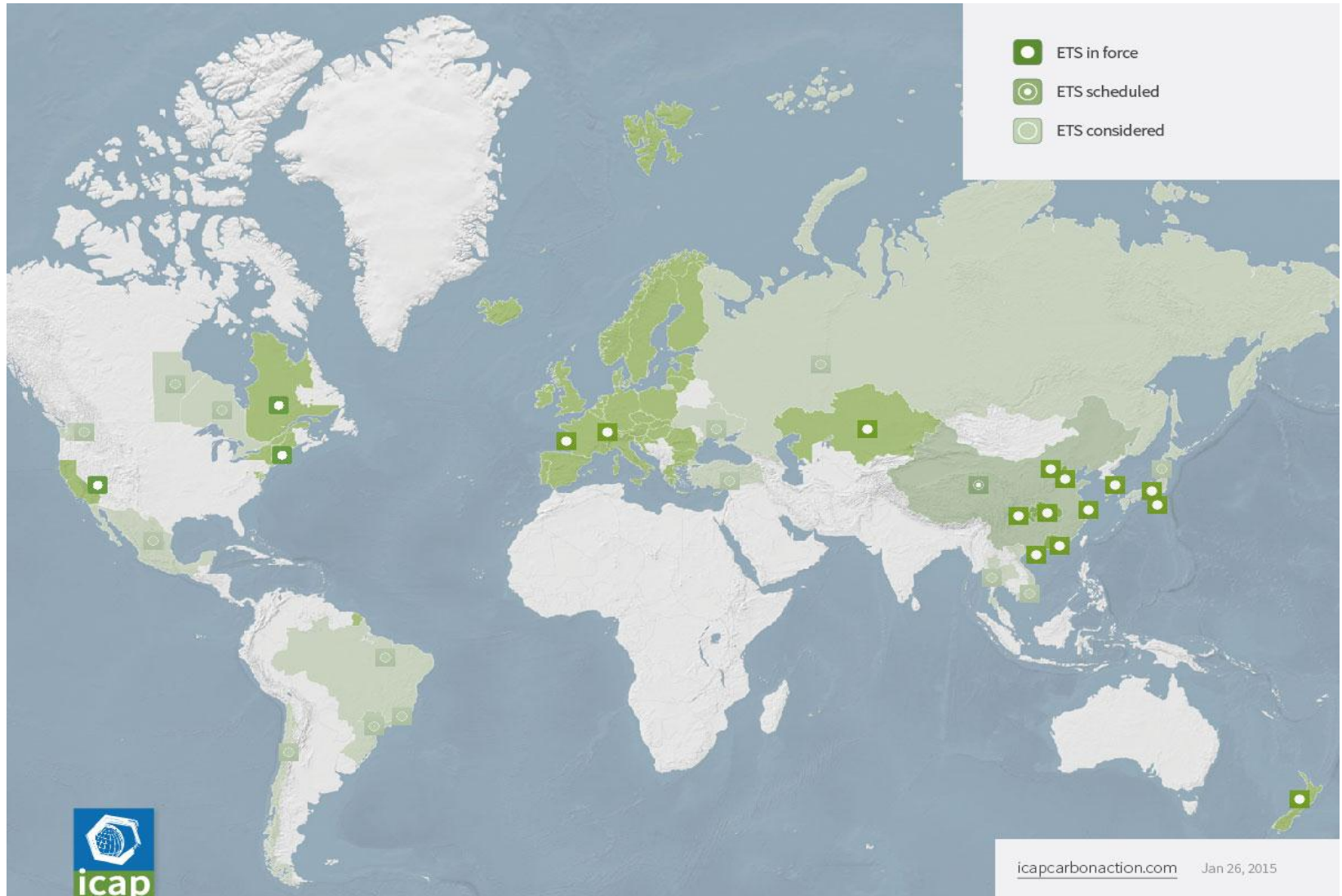
Next Steps & Timelines

- MOECC is seeking comments from stakeholders by December 15th
- Stakeholder feedback from these sessions and subsequent submissions will be summarized and discussed via webinar in January 2016
- Input will be considered in the draft regulatory proposal, to be tabled early 2016
- Stakeholders will have further opportunity to share their feedback during the public comment period for the detailed draft regulatory proposal

Government Commitment

- On April 13, 2015, Premier Wynne announced that Ontario would be putting a limit on greenhouse gas (GHG) pollution through a cap and trade program
 - In choosing to price carbon, Ontario has committed to the most effective and efficient way to reduce emissions and drive innovation and productivity
- On July 8, 2015 at the Climate Summit of the Americas, Premier Wynne also announced Ontario's intent to move forward with a plan to expand North America's largest carbon market by linking with Quebec and California
- Ontario will be releasing a Climate Change Strategy in 2015 describing the province's vision, strategic objectives, and high level measures in support of the achievement of its 2020, 2030, and 2050 GHG emission reduction targets
 - Following the Strategy, Ontario will be releasing a detailed Action plan with specific actions to be carried out over the next five years
 - Cap and trade will be the primary tool for achieving Ontario's 2020 target
 - The Strategy and Action Plan will be comprised of measures that complement the cap and trade program to help ensure that more GHG reductions occur within Ontario borders and that they are made sooner, compliance costs are lowered, and to support the transition to a low carbon economy

Emissions Trading Around the Globe



Jurisdictions with Emissions Trading Systems

- Ontario's proposed options have been informed by cap and trade experiences in other jurisdictions
- Quebec and California, having recently implemented and linked their emissions trading programs, continue to support Ontario's program development by sharing their experiences
- Also, Ontario can benefit from lessons learned from the early years of the European Union Emissions Trading System (EU-ETS), including:
 - Importance of providing a certain level of price certainty (i.e., auction reserve and strategic reserve prices)
 - Important to have a single registry for all accounts
 - Strong measures needed to detect and deter fraud, including collection of information sufficient to support those measures
 - Scheduled program review can help mitigate unintended consequences

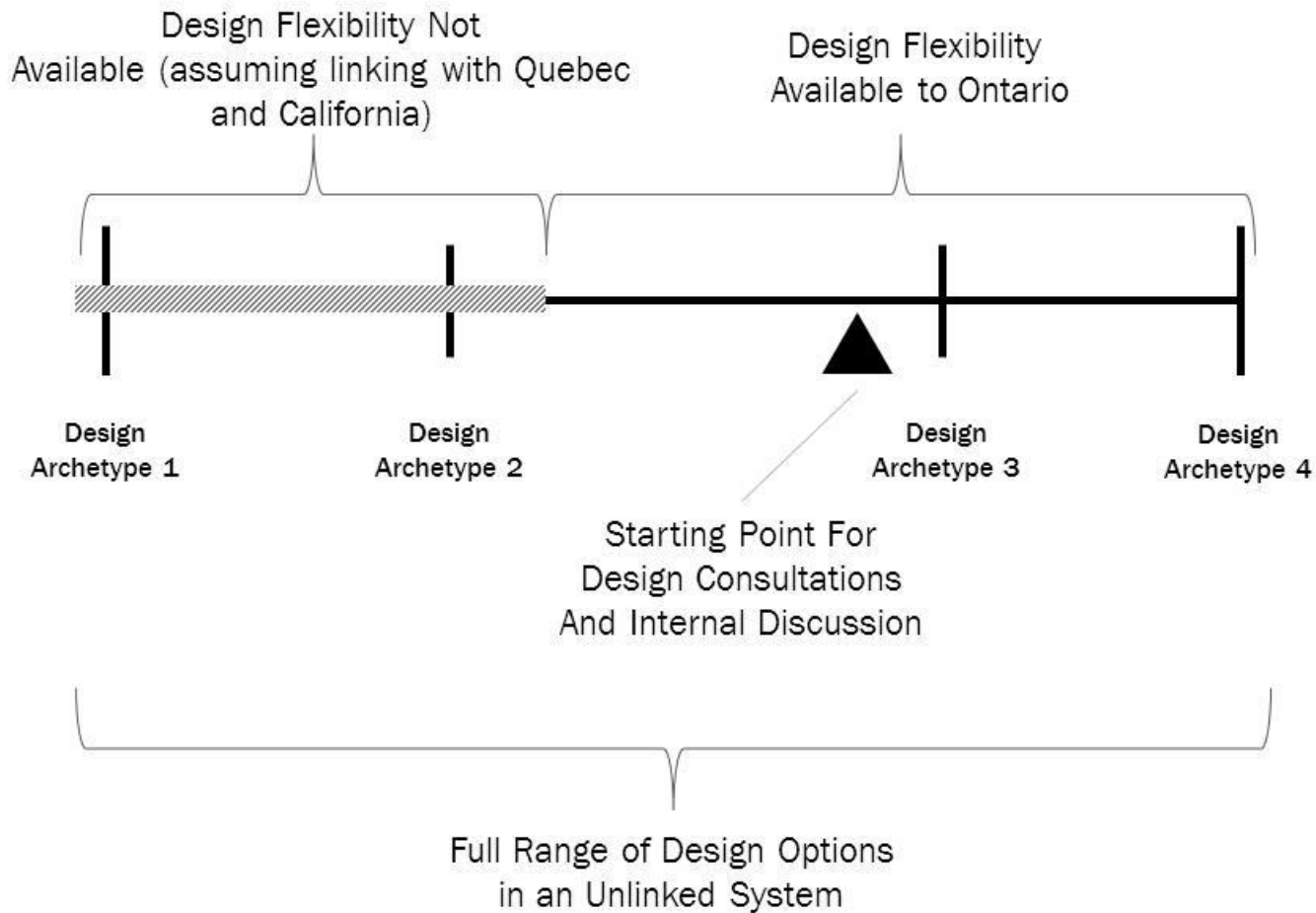
Overarching Design Principles for Ontario

Category	Principle
Environmental	Support absolute reduction in greenhouse gas emissions
Equivalency	Secure equivalency with the federal government to avoid duplicate regulatory regimes
Competitiveness	Employ effective compliance approaches and tools to achieve GHG reductions and support competitiveness of Ontario industries
Economic Growth	Support low carbon growth and investment in new and existing industries
Administrative Efficiency	Employ simple, consistent, and efficient administrative systems
Equitability	Treat sectors and facilities equitably
Allocations	Recognize and account for early action to reduce GHGs by industry leaders (e.g., free allocation through benchmarking)
Evidence-Based	Use accurate and verified emissions data, supported by transparent analyses
Clean Technology	Encourage energy efficiency and the development of clean technologies
Linking	Align with other emissions reduction programs of similar rigour
Regulatory Integration	Consider integration with Ontario's other environmental policies
Transparency	Share information supporting program design decisions

Supporting Households and Business

- A cap and trade program in Ontario will promote productivity and innovation to transition Ontario households and businesses to a low-carbon economy while reducing the risk of carbon leakage.
- Reinvesting cap and trade auction proceeds in complementary measures can support the reduction of GHG emissions sufficient to meet the government's targets. This can be accomplished with made-in-Ontario reductions that assist Ontario households and businesses transition to the low carbon economy.
- Ontario will reduce the overall cost to households and business by investing in energy retrofits and low carbon transportation options.

Background: How to Interpret the Design Flexibility Diagram



▲ * Arrows placed arbitrarily for illustration purposes only to initiate a conversation about design considerations, pros and cons

1. Linking with Quebec and California

- Many jurisdictions have recognized that linking their emissions trading programs to programs in other jurisdictions brings benefits including:
 - Access to a bigger pool of low cost reductions
 - Increases market liquidity and provides greater price stability
 - Helps to level the international playing field by harmonizing carbon prices across jurisdictions
 - Can help to prevent emissions leakage
 - Leverages common infrastructure, reducing implementation costs
 - Harmonizes design elements and simplifies administration for industries operating in multiple jurisdictions
 - Standardizes reporting requirements providing a common approach for assessing emissions reductions
- From 2008 to 2010, Ontario collaborated on and co-authored Western Climate Initiative (WCI) design recommendations for a regional trading program through a collaboration of seven states and four provinces
 - Collaboration leveraged significant resources and expertise from academics, state and federal governments, think tanks, and economic modelling experts
 - Experience and lessons learned from other regional programs (Regional Greenhouse Gas Initiative, EU Emissions Trading Scheme)
 - Ontario will continue to work with Quebec and California on program design before linking

1. Linking with Quebec and California

Proposed Option

- Ontario intends to link its proposed cap and trade program with the existing programs in Quebec and California
- Final detailed design released by WCI in 2010 used as a guideline by Quebec and California in developing their regulations
 - Design outlined core program elements (e.g., scope) which must be consistent to ensure the integrity of the regional effort
 - Design also recognized that certain elements like regulatory language, implementation schedules and approach could vary across jurisdictions
 - Expectation that it would be used similarly by other jurisdictions seeking to join the program in the future, but linking agreement would still be necessary

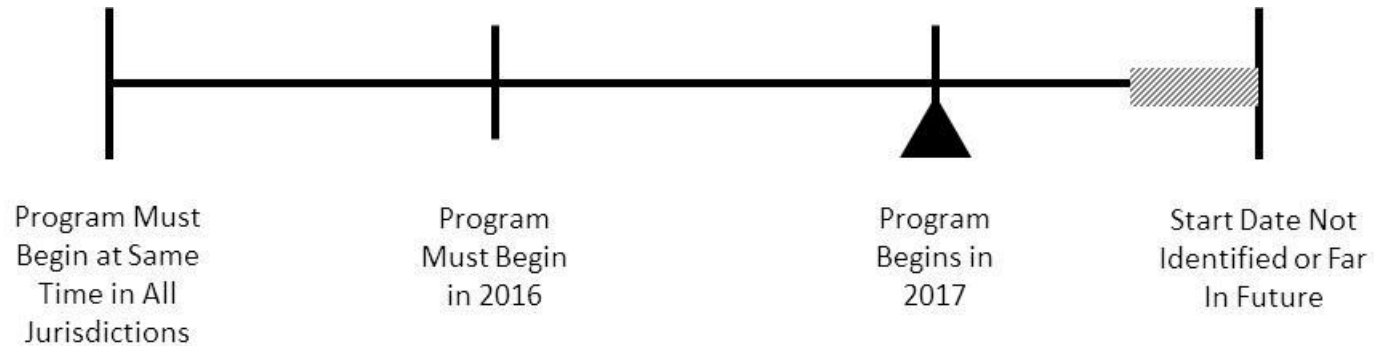
Other options considered:

- Stand alone Ontario cap and trade program
- Link with Quebec and California after the first proposed compliance period (i.e., post-2020)

1. Linking with Quebec and California: Questions

- How do you anticipate linking with Quebec and California affecting your sector and/or facility?
- Do Ontario industries have experience with the linking of trading regimes in other jurisdictions that can be instructive for Ontario?

2. Timing



- Achieving Ontario's 2020 GHG reduction target is a priority
- Delaying implementation would increase the rate at which Ontario emissions would have to decline to achieve the 2020 target
- A 2017 start date means the cap needs to decline by approximately 3.7% per year to enable achievement of 2020 targets
 - Quebec's cap decline about 3.2% to 3.7% annually between 2015 and 2020
 - California's cap decline is 3.1% to 3.5% annually from 2015 to 2020
 - Sectors (i.e., large final emitters, fuels, and electricity) and types of emissions (i.e., process and combustion) could face different rates of decline
- A later start date would also see Ontario emissions increasing for another year, while there is an urgent need for immediate climate action
- Intention to align with Quebec-California three-year compliance periods post-2020

2. Timing: Proposed Option

- It is proposed that Ontario's program begin January 1, 2017
 - This is the earliest possible date that allows time for development of regulations and supporting information technology systems
 - Entities would be responsible for their emissions starting January 1, 2017
 - A first auctioning of emission allowances would be held in March 2017
- Facilities will still have time to adapt to the program:
 - Note that the cap in the first year is proposed to be set at forecast 2017 emissions
 - Also, true up is not proposed to happen until 2021 (would cover emissions from 2017 to 2020)

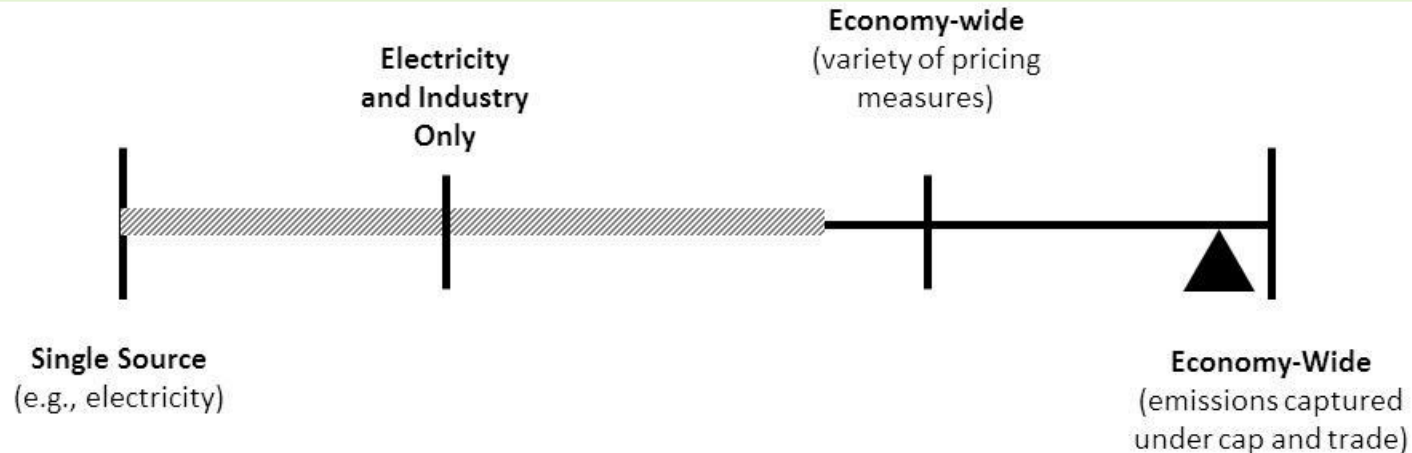
Other options considered:

- Program beginning in 2018 , with initial three-year compliance period

2. Timing: Questions

- How do you anticipate this timing affecting your sector and/or facility?
- Noting that a later program start date would mean a steeper decline in annual caps to support achievement of Ontario's GHG reduction targets, does a January 1, 2017 start date give sufficient time for industry, businesses, and households to prepare for a cap and trade program?
- Ontario plans to have extensive training and outreach to assist emitters with understanding their compliance obligations under the program. What else can Ontario do to support industry as it prepares for a cap and trade program?

3a. Program Scope: Sector Coverage



- Broad carbon price signal provides the greatest scope for least-cost emissions reductions
 - Cap should cover all emissions that can be reliably measured or estimated
 - A broader scope means more reductions can be achieved by the cap and trade program
 - Broad scope incents the broad behaviour change needed to support achieving the 2020 GHG reduction target
- Uncapped sectors may be eligible to generate offset credits
 - Broadens emissions reductions and provides low-cost compliance option for entities subject to the cap

3a. Program Scope: Sector Coverage

Proposed Option

- Proposing broad sector coverage:
 - Electricity, including imported electricity for consumption in Ontario
 - Industrial and large commercial (e.g., manufacturing, base metal processing, steel, pulp and paper, food processing)
 - Institutions
 - Transportation fuel, including propane and fuel oil
 - Distribution of natural gas (e.g., heating fuel)
- Broad carbon price signal provides the greatest scope for least-cost emissions reductions
- Note that Ontario is currently considering how the proposed program would cover energy-from-waste facilities

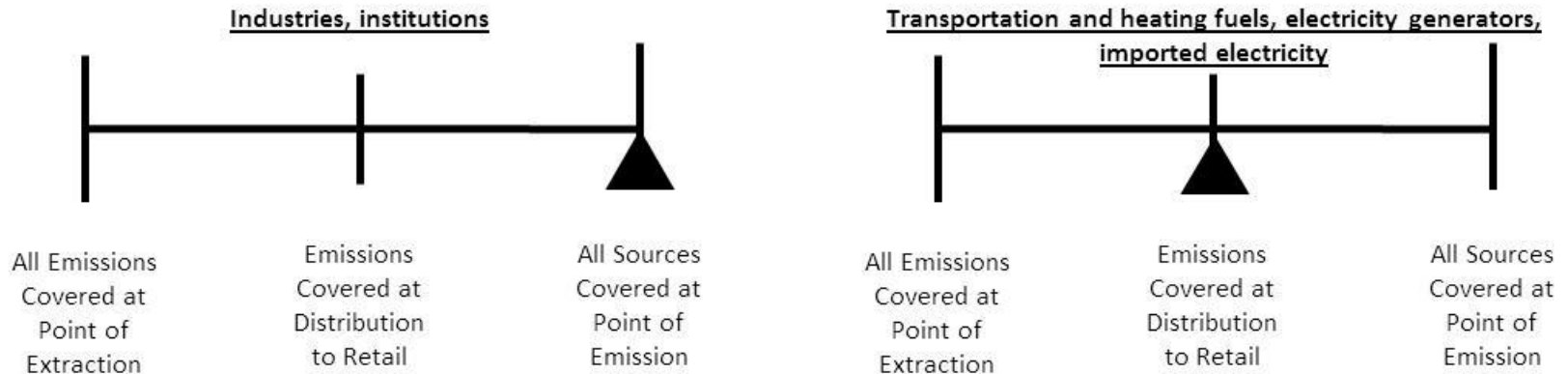
Other options considered:

- Phasing in fuel suppliers/distributors (e.g., after 2020)
- Broader sector coverage

3a. Program Scope: Sector Coverage Questions

- Should there consideration be given to broadening the scope to other sectors?
- How should Ontario's program treat energy-from-waste facilities considering that emissions from landfilling are proposed not to be covered by the program?

3b. Program Scope: Point of Regulation



- Point of regulation is not central to WCI joint program design; the multi-jurisdiction market would be able to accommodate a variety of approaches
- In Ontario, consideration must be given to balancing administrative simplicity with concentration of market demand
 - Moving compliance obligations upstream, to the fuel distributor level, simplifies the administration of the program; it is not feasible to place a direct cap and trade compliance obligation on all the vehicles in the province
 - Placing responsibility for too large a proportion of the emissions on a few participants can also affect market dynamics, although joining a larger market may mitigate this effect

3b. Program Scope: Point of Regulation

Proposed Option

- Industrial and institutional sources with annual GHG emissions equal to or greater than 25,000 tonnes would be covered at the point of emission (i.e., at the facility)
- Domestic electricity generation covered at the fuel distributor level, electricity imports at the point the electricity enters the province (first jurisdictional deliverer)
 - Some exceptions may be required for facilities that connect directly to international or inter-provincial natural gas pipelines - these emissions would be covered at electricity generator
- Transportation fuels (including fuel oil and propane) would be covered at the distribution level where they are first placed into the market – imports and domestics covered at volumes of 200 litres or more and that are delivered to an Ontario consumer
- Distribution of natural gas: for distributors of natural gas that, in aggregate, is associated with annual GHG emissions equal to or greater than 25,000 tonnes, the point of regulation would be at the point the gas is transferred from pipeline into the distribution network for local customers
- Note that emissions associated with fuel use, including natural gas, for stationary purposes at industrial and institutional sources will be excluded from upstream suppliers

Other options considered:

- Cover all industry at the fuel supplier/distributor
- Transportation and heating fuels at the point of consumption (e.g., vehicle owner, home owner)

3b. Program Scope: Point of Regulation Questions

- Are there some sectors that should have a different point of regulation than what is proposed? If so, why?
- What are the implications of the identified points of regulation from your sector's or facility's perspective?

3c. Program Scope: Emissions Coverage

- There are two types of emissions that could be covered: combustion emissions and fixed process emissions
- Combustion Emissions
 - Emissions from the combustion of fossil fuels
 - Possible to reduce these emissions with more efficient technologies, fuel switching
- Fixed Process Emissions
 - Direct emissions from an industrial process involving chemical or physical reactions, other than combustion, and where the primary purpose of the industrial process is not energy production
 - Process emissions vary by sector according to the applicable manufacturing methods used
 - Often more difficult to control

3c. Program Scope: Emissions Coverage

Proposed Option

- It is proposed that the program cover both fixed process and combustion emissions
- Broader coverage gives more scope for long term emissions reductions
- Including fixed process emissions would encourage reduction of those emissions, and would create a reward for discovering new ways of creating products with lower process emissions
 - Send long-term price signal to prompt technological change and investments needed
 - Support transition to low-carbon economy by providing broader encouragement to innovate
- Design will ensure fixed process emissions and combustion emissions are reported separately

Other options considered:

- Do not include fixed process emission in compliance obligation
- Do not include fixed process emissions for the first compliance period

3c. Program Scope: Emissions Coverage Questions

- How should the treatment of fixed process and combustion emissions differ?
- What should be the guiding principles for defining what are fixed process emissions versus combustion emissions?

3d. Program Scope: New and Expanding Facilities

- Ontario's economy will continue to grow as it transforms to a low-carbon reality
- New facilities, or expansions of existing facilities are important to Ontario's ongoing economic expansion
- While respecting the goal of reducing GHG emissions, Ontario intends that these facilities will be treated in a manner that fosters growth while maintaining a level playing field with existing facilities
 - The approach would focus on industry and institutions (i.e., not fuel suppliers/distributors)

3d. Program Scope: New and Expanding Facilities

Proposed Option

- New facilities that begin operations on January 1, 2016 or later and have annual emissions equal to or greater than 25,000 tonnes per year would have a compliance obligation starting in their third year of operation
- Existing facilities that are expanding and whose emissions exceed the compliance threshold of 25,000 tonnes per year would have a compliance obligation starting with the first year the threshold is reached

Other options considered:

- A more immediate compliance obligation for new facilities (i.e., compliance obligation starting in first or second year of operation)
- Existing facilities that exceed the compliance threshold would have an obligation starting the second or third year the threshold is reached

3d. Program Scope: New and Expanding Facilities Questions

- The proposal indicates that new facilities emitting 25,000 tonnes or more of GHG annually would not have a direct compliance obligation until their third year of operation (these facilities would still have an indirect compliance obligation for fuel use). Would you propose a longer or shorter time? If so, what duration and why?
- For existing facilities that are expanding, it is proposed that the compliance obligation start the first year that the regulatory threshold is exceeded. Does this allow sufficient time for entities to prepare for compliance?

3e. Program Scope: Opting-in



- It is possible that some entities in sectors with a compliance obligation, and with emissions below the proposed threshold for inclusion in the program, may wish to participate in the program (i.e., voluntarily submit to the compliance obligation)
- It is also possible that remaining in the program may be an attractive option for entities that begin above the threshold and subsequently fall below the 25,000 tonne threshold

3e. Program Scope: Opting-in Proposed Option

- It is proposed that facilities that are obliged to report emissions under Ontario Regulation 452/09, Greenhouse Gas Emissions Reporting, be permitted to take on a direct compliance obligation under the proposed cap and trade program
- This approach allows firms with smaller emissions profiles to participate on the same basis as larger emitters in the same sector
- Firms that opt in would not be permitted to opt out of the program

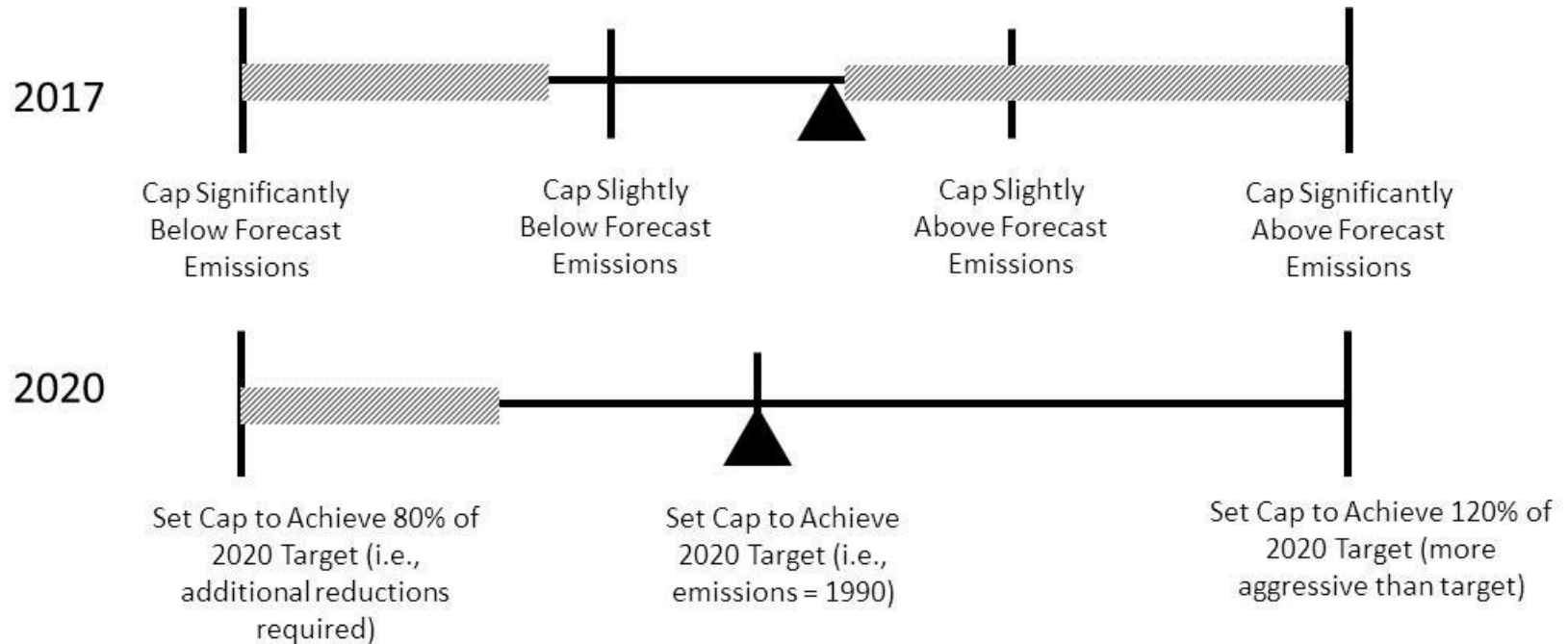
Other options considered:

- No opt in allowed
- Unlimited opt in allowed (i.e., any size entity can participate, regardless of emissions)

3e. Program Scope: Opting in Questions

- Is opting in an option that would be supported by stakeholders?
- Are there benefits or problems that have not been identified?
- Should an entity be able to opt out of the program after opting in (provided they are operating below the regulatory threshold)? If so, under what conditions?
- What sort of limitations should be applied to the proposal to allow opting in?

4. Setting the Cap – 2017 to 2020



- A cap would be set for each year of the program that would limit the amount of allowable greenhouse gases in tonnes of carbon dioxide equivalent
- The 2020 cap could be set to support achieving reductions beyond the 2020 target, or it could be set less aggressively, meaning other programs would be required
- Setting the cap to achieve the 2020 GHG reduction target is consistent with approaches taken by other jurisdictions such as California and Quebec

4. Setting the Cap: Proposed Option

- The 2017 cap would be set to align with the best estimate of emissions in 2017, declining at a rate to help the province achieve its 2020 reduction target
 - The 2017 cap will be set at the forecast of total emissions expected at the start of the program - taking into consideration the expected growth in the economy as well as in existing covered facilities and any new facilities expected to become operational by that time
 - Annual cap to decline to support achievement of Ontario's greenhouse gas reduction target in 2020 of 15% below 1990 emissions level
 - Ministry is currently assessing sector-level impacts, including impacts of recycling proceeds
- Cap would then decline to support the proposed 2030 target on the path towards the 2050 target of 80% below 1990 levels

4. Setting the Cap: Other Options Considered

Other options considered:

- Setting initial (2017) cap slightly below emissions forecast (i.e., immediate step down)
- Setting a more aggressive 2020 cap relative to the 2020 reduction target, to further support achievement of 2030 and 2050 targets

4. Setting the Cap: Questions

- What type of complementary measures would help ensure that the target is met by 2020?
- If Ontario set a 2020 cap that would achieve reductions beyond achieving the 2020 GHG reduction target, would that ease the transition for compliance periods post-2020?
- What should Ontario take into account as detailed work is undertaken to forecast emissions for the starting cap in 2017?

5. Market Design Features

- WCI developed a number of design features to mitigate market manipulation, reduce administrative costs, support market certainty, and promote transparency
 - Ensures jurisdictions have adequate information to monitor compliance
 - If Ontario links with Quebec and California, anticipate that there would be limited flexibility as parameters must be harmonized to allow for use of shared infrastructure and maintain same level of rigour
- Market design features include:
 - **Registration requirements:** any entity covered by the program or wishing to voluntarily participate must submit detailed registration information, including corporate affiliations
 - **Auction rules:** format of auction process
 - **Trade rules:** related to transfer of allowances between entities
 - **Market rules:** main rules consist of purchase limit (total number of allowances that entity can acquire in any one auction) and holding limit (amount of allowances that entity can hold)
 - **Strategic Reserve Sales:** how allowances from strategic reserve will become available

5. Market Design Features: Proposed Option

	Ontario's Proposed Options	Other Options Considered
Registration Requirements	<ul style="list-style-type: none"> • All new and existing covered entities required to register • Entities wishing to voluntarily participate in the market must also register • Requires information disclosure including corporate associations (>20% control) 	<ul style="list-style-type: none"> • Limited flexibility
Market Rules	<ul style="list-style-type: none"> • Holding limit applies to any registered entity; limit depends on supply of allowances in the market • Purchase limit prevents covered entities from purchasing more than 25% of allowances sold at auction; for non-covered entities the limit is 4% 	<ul style="list-style-type: none"> • Limited flexibility
Auction Rules	<ul style="list-style-type: none"> • Sealed bid, single round, lots sizes of 1000 allowances, uniform price • Quarterly auctions – initially separate, joint once links to Quebec and California are official • Participants must provide financial guarantee covering full value of any bid • First auction: March 2017 stand alone auction (then align with California and Quebec schedule where auctions currently held every quarter) 	<ul style="list-style-type: none"> • Linking with Quebec and California from first auction (i.e., no Ontario stand alone auction)
Trade Rules	<ul style="list-style-type: none"> • Requires submission and confirmation by two account representatives from the sellers account and approval by receiving account to prevent theft • Information required – e.g., account numbers, compliance instrument info • If related entities –disclosure of settlement price not required 	<ul style="list-style-type: none"> • Limited flexibility
Strategic Reserve Sales	<ul style="list-style-type: none"> • 5% of allowances from 2017 to 2020; divided equally into three price tiers • Only covered entities can purchases allowances from reserve and allowances can only be used for compliance 	<ul style="list-style-type: none"> • Limited flexibility

5. Market Design Features Questions

- What is the interest in participating in a practice auction to assist emitters and participants with understanding the auction process?
- To enhance compliance flexibility, should Ontario proceed with an initial four-year compliance period and then align with three-year compliance periods post-2020?
- What processes can Ontario put in place to ease registration reporting requirements?

6. Price Stability Mechanisms

- Market design must balance price discovery and flexibility with predictability
 - This is best accomplished with measures to keep the carbon price within a foreseeable range
- Setting a minimum price level through an auction reserve price provides the certainty that emitters need to plan investments, and provides a clear signal that low-carbon innovation will have market value
 - Allowances available at auction would not be sold below a minimum price, known as the reserve price
- Similarly, measures such as establishing a strategic reserve of allowances maintain the price of carbon within a range and allow regulated parties to plan their compliance strategies
- If linking with California and Quebec is pursued, common auction reserve price and strategic reserve prices will apply across all partners

6. Price Stability Mechanisms

Proposed Option

Auction Reserve Price

- For Quebec and California, the reserve price was set at \$10/t in 2013, escalating annually at 5% plus inflation and converted to Canadian currency
- Ontario would align its reserve price with the price in the joint Quebec-California market for 2017
 - The reserve price at the most recent Quebec-California auction, in August 2015, was \$15.84 CAD

Strategic Reserve

- 5% of total allowances from the cap each year would be set aside by the province in a strategic reserve and made available to Ontario emitters at fixed prices to manage price impacts in the event there is high demand for allowances
- See Market Design Features for proposed options on Strategic Reserve Sales
- Ontario would align its price tiers with the price in the joint Quebec-California market for 2017
 - For Quebec and California, these price tiers were set at \$40, \$45 and \$50 per allowance in 2013, escalating annually at 5% plus inflation and converted to Canadian currency

6. Price Stability Mechanisms

Other Options Considered

- Forego Strategic Reserve
- Different reserve price and/or strategic reserve price tiers than Quebec and California
- Different portion of allowances held in Strategic Reserve

6. Price Stability Mechanisms

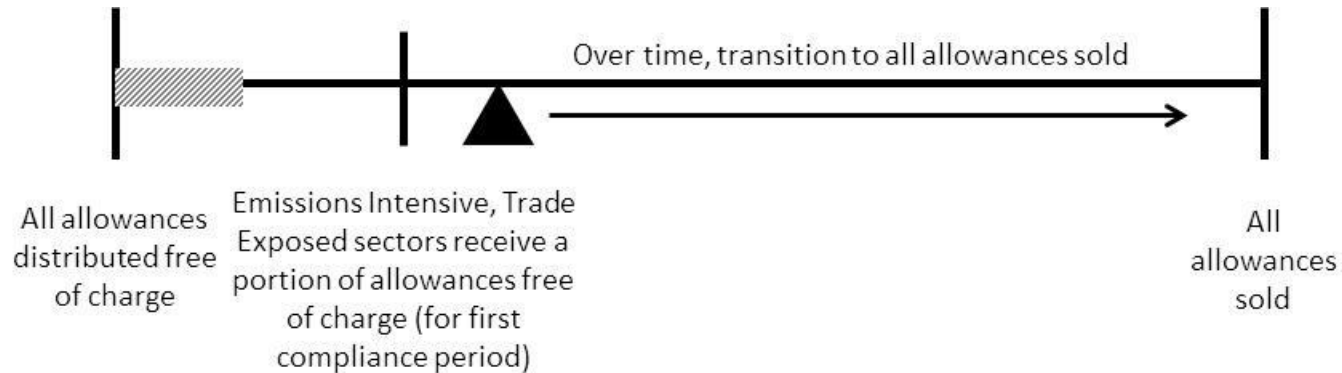
Questions

- What are the risks of Ontario not implementing a strategic reserve?
- What should Ontario consider in determining the size / use of the strategic reserve?

Mitigating Carbon Leakage

- Under a cap and trade program, there may be specific sectors that are emissions intensive and trade exposed (EITE) which may experience carbon leakage impacts
 - Carbon leakage occurs when production shifts to a jurisdiction with a less stringent carbon pricing policy
- The carbon price is considered a regulatory charge - the use of the proceeds needs to link to GHG emission reductions
 - Investment of proceeds can promote productivity and transition to a low carbon economy while reducing the risk of carbon leakage
- Other mechanisms for reducing the risk of leakage that Ontario could use:
 - Distribute a portion of allowances free of charge to EITE sectors
 - Include market design features that provide compliance flexibility
 - Allow use of offset credits as a compliance instrument, including an Ontario supply
 - Apply border carbon adjustments to level the playing field for traded goods (e.g., electricity imports) and reduce leakage

7. Distributing Allowances: Emissions Intensity and Trade Exposure



- The most efficient means of distributing allowances is by selling them all at auction
 - Selling allowances at auction makes sure they go to their highest value use
- Auctioning allowances creates proceeds which will be re-invested to achieve further emissions reductions
- Many Ontario industries compete in markets that include jurisdictions that have not adopted carbon policies yet, so imposing a carbon cost in Ontario could increase risk of leakage (i.e., production moves to jurisdictions without similar carbon policies), undermining the goal of achieving GHG emission reductions
- Distributing a portion of allowances free of charge is one means of addressing the potential leakage pressure (other measures discussed below)
- Also, if border carbon adjustments were to be introduced, the proportion of allowances distributed free of charge would decline

7. Distributing Allowances: Emissions Intensity and Trade Exposure

- The California approach to EITE assessment considers trade exposure and carbon intensity combined to rank risk of leakage; it ranks sectors based on EITE indicators into high, medium, low and very low categories

Emission Intensity:

- High: >5,000 (tCo2e/M\$)
- Medium: 1,000-4,999 (tCo2e/M\$)
- Low: 100-990 (tCo2e/M\$)
- Very low: below 100 (tCo2e/M\$)

Trade Exposure:

- High for industries with trade shares above 19%
- Medium for sectors with trade shares between 19% and 10%
- Low for industries with trade shares below 10%

Leakage Risk	Emission Intensity	Trade Exposure
High	High	High, Medium, Low
	Medium	High
Medium	Medium	Medium, Low
	Low	High, Medium
Low	Low	Low
	Very Low	High, Medium, Low

7. Distributing Allowances: Individual Facilities

- WCI recommendations provide that distribution of allowances is at the discretion of the individual jurisdictions
- Arriving at an approach to distribution includes:
 1. Determining which sectors should have to purchase all allowances (auction) and which would receive a portion of allowances free-of-charge as a transitional measure and to address leakage risk
 2. Allocating the allowances to entities in sectors receiving allowances free of charge - this includes:
 - A. Setting an assistance factor to take account of the emissions intensity and trade exposure of some sectors, as well as transition assistance (see next slide)
 - This assistance factor should decline over time as sectors transition to a carbon price
 - B. Determining base allocations for facilities (either benchmarks (e.g., allowances per tonne of cement produced), unit of energy consumed, or grandfathered allocations based on historic emissions)
 - C. Reflection of overall decline in the cap for each sector

Notes: Quebec and California use a mix of allocation methods, including free allocations to industry

7. Distributing Allowances: Individual Facilities (cont'd)

- Businesses and institutions in Ontario will be facing a new operating cost when a price on carbon emissions is imposed by the cap and trade program
- It is common for many regulatory regimes to provide an adjustment period by phasing in requirements over time
- Transition assistance is a consideration for all large emitters with a compliance obligation attached to their carbon emissions for the first compliance period

7. Distributing Allowances: Proposed Option

- A portion of allowances would be distributed free of charge to large emitters* with a direct compliance obligation:
 - Address carbon leakage risk
 - To support transition to the new cap and trade program
- The rest of the allowances would be sold at auction
- The total distribution of allowances free of charge will decline over time; the timing for the decline will be determined before the end of the first compliance period as part of a program review - the proportion of free allowances will decline as:
 - Other jurisdictions adopt carbon policies
 - Ontario entities transition to the carbon price
 - If border carbon adjustments are introduced
- Ontario proposes to assess which entities will receive a portion of allowances free-of-charge using a method based on California's approach.

*Emissions attributable to electricity generation would not be eligible for an allocation free of charge, but emissions due to intensive production of a trade exposed good would be eligible

7. Distributing Allowances

Proposed Option cont'd

- Facility allocations will be determined according the following equation:

$$\text{Facility Allocation} = A \times B \times C$$

A: Assistance Factor (up to 100%)

B: Base amount for facility, determined according to benchmark, energy use or historical emissions

C: Cap Adjustment Factor (reflects annual reduction in the cap)

- Ontario is proposing that all industrial and institutional sectors will have an assistance factor of 100% in the first compliance period:

EITE Risk	Assistance Factor in First Compliance Period (2017-2020)
High	100%
Medium	100%
Low	100%

Note: Assistance factor to be reassessed prior to beginning of second compliance period (2021-2023)

- Program will include a facility-level allocation method that takes into consideration a base amount (i.e., product-output benchmark, energy use-based allocation, or historical-based emissions) and/or early reduction credits
 - Specific allocation method, including benchmarks and cap adjustment factor are under development with each sector and will be part of the cap and trade proposal for a regulation to be released in early 2016

7. Distributing Allowances

Other Options Considered

- Universal application of historical emissions allocation method is one approach that is much less administratively burdensome, but can be problematic for industries that are growing

7. Distributing Allowances

Questions

- Are adjustments required to the proposed approach for assessing leakage risk to reflect Ontario's unique circumstances? If so, what adjustments would you recommend and why?
- What are the strengths and weaknesses of Ontario's proposed approach to address carbon leakage risk? Are there additional steps Ontario should consider? Are there measures that could be improved?

8. Flexibility Mechanisms

- Flexibility mechanisms like allowance banking, multi-year compliance periods and an offset program allow covered entities to plan and implement the compliance strategies that work best for them
 - Banking refers to saving allowances for use in future compliance periods
 - Borrowing refers to using allowances from future compliance periods to balance off current emissions
 - WCI design called for three-year compliance periods, to increase flexibility for emitters
- This helps to manage compliance costs, while ensuring that the environmental integrity of the program is maintained
- Harmonization with Quebec and California on banking and borrowing limit opportunities to gain an unfair advantage by exploiting different rules within a joint market

8. Flexibility Mechanisms: Proposed Option

- Purchasers and covered entities would be allowed to bank allowances, without restrictions on the amount of allowances that may be banked or on how long they may be banked (subject to holding limit)
- Borrowing of allowances from future compliance periods will not be allowed (with possible exception for complying with penalty rule)
- Ontario is proposing an initial four year compliance period to allow harmonization in linked program with Quebec and California's compliance periods without Ontario having a one-year compliance period

9. Use of Offset Credits

- Offset credits recognize real, additional, enforceable, verifiable, permanent reductions that occur outside the cap (i.e., in sectors without a compliance obligation)
 - Allowing the use of some offsets for compliance can help reduce compliance costs for emitters subject to a compliance obligation and can support engagement and reductions in sectors without a compliance obligation
 - Offset credit projects may produce co-benefits including health, social, and benefits in addition to GHG reductions
- To ensure that the majority of the emissions reductions in the region occur within the covered sectors, WCI recommends limiting the use of offsets for compliance in a cap and trade program
 - California and Quebec have established an 8% limit on the use of offset credits (i.e., an entity can only use offset credits for up to 8% of its compliance obligation)
 - Limit is based on WCI recommendation that offsets represent no more than 49% of emission reductions needed to achieve the cap
 - This amount (just under half the reductions required by the program) was equivalent to 4% of the overall emissions cap (i.e., overall amount of emissions that are permitted) for California
 - This was increased to 8% to account for fact that some of the allowances under the cap had been diverted to create the strategic reserve

9. Use of Offset Credits: Proposed Option

- Ontario intends to allow use of offsets for compliance in its program, and to take account of protocols for project types currently accepted in California and Quebec
- It is proposed that Ontario:
 - Establish an Offset Credit Registry
 - Issue offset credits for emissions reductions and removals from eligible projects within Canada
 - Allow for the aggregation of projects (bundling of identical projects for reporting purposes)
 - Recognize offset credits issued by California and Quebec, in anticipation of linking to Ontario's program
 - Limit use of offsets to up to 8% of the total compliance obligation
- The emission reductions achieved by an offset project would be quantified using an **Ontario-approved offset protocol** that sets out the requirements to demonstrate that the proposed offset credits meet the criteria of being real, additional, verifiable, validated, enforceable and permanent
 - Ontario and Quebec are fostering the development of a robust domestic offset credit supply by contracting for the adaptation of existing protocols for use in Canada.
 - Request for Bids for the adaptation of 13 Protocols; bids are expected November 27,2015 (see Appendix 1)

10. Border Carbon Adjustments

- Proposed options include border carbon adjustments for electricity and fuels to level the playing field and reduce leakage:
 - Electricity imports: importers are licensed in Ontario and emissions data from jurisdictions is available – precedent in Quebec and California
 - Point of regulation and threshold for inclusion of fuel distributors/suppliers ensures imported and domestic production are similarly required to account for GHG emissions from fuel use in Ontario
- MOECC and MEDEI are actively considering the applicability of border carbon adjustments for other sectors that could be covered by the proposed cap and trade program
- Beyond electricity and fuels there are greater implementation issues and risks:
 - Wide range of goods and sources (comprised of varying levels of carbon intensive material from various jurisdictions), with potential to distort trade and complicate Ontario's international supply chains
 - Lack of information on importers and emissions data for imported goods
- California is considering options for a border carbon adjustment for cement sector as first attempt to design a measure beyond fuels and electricity, but it has yet to finalize an approach and implement

Mitigating Carbon Leakage: Questions

- For the next compliance period (post 2020) how should the different EITE risk classes be treated with regard to setting the “assistance” factor?
- What should Ontario consider in setting the cap decline factor for sectors eligible for allowances free-of-charge?
- Should fixed process emissions and combustion emissions be treated differently in recognition that emission reduction opportunities for fixed process emissions are more limited in the short-term?
- What kinds of investments are required to make it possible for your sector to affect significant greenhouse gas emissions reductions?
- Do you support additional border carbon adjustments, and if so, which ones?

11. Recognizing Early Reductions

- Historically, some entities have made significant investments to reduce emissions
- Recognizing emission reductions voluntarily undertaken by an emitter with a direct compliance obligation prior to the start of the program can reward early action while preserving or enhancing the environmental outcomes of the cap and trade program
- To be eligible, WCI design requires that the emission reductions be a direct result of actions taken by the emitter to reduce emissions and cannot recognize reductions resulting from lower production

11. Recognizing Early Reductions: Proposed Option

- Ontario's cap and trade program can recognize early reductions in one of two ways:
 - 1) Through product-output benchmarking
 - In many sectors, the number of allowances facilities are eligible to receive will be based on product output benchmarks
 - Since these are based on the average emissions intensity of the sector, facilities that are more emissions-efficient than the benchmark will get more allowances relative to their actual emissions
 - 2) Through early reduction allowances
 - In addition to product-output benchmarking, Ontario could consider issuing early reduction allowances to reward actions that meet specific requirements
 - Early reduction allowances would add supply to the system and therefore could decrease the value of existing allowances
 - California's program does not include early reduction allowances
 - Quebec's program had a one time issuance of early reduction allowances at the beginning of the program

11. Recognizing Early Reductions: Questions

- Should Ontario develop an early reduction allowance program in addition to recognizing early reductions through benchmarking?
- Is so, what should Ontario consider in developing an early action program?
- Should early reduction allowances only be considered for sectors being allocated under the energy use-based approach, since there is less incentive for lowering energy use at facilities subject to this allocation method?
- Which years should be eligible for recognizing early reductions under the program?

12. Compliance Requirements

- Following a compliance period, all entities with a compliance obligation must surrender a number of compliance units (e.g., allowances, offset credits) equal to their emissions during the period - this process is commonly referred to as a true-up
- Acceptable compliance units for true-up would include emissions allowances, strategic reserve allowances, early reduction allowances [TBD] and offset credits issued by Ontario as well as allowances and offset credits issued by other jurisdictions with approved programs (e.g., Quebec and California)

12. Compliance Requirements: Proposed Option

- Entities with a compliance obligation would be required to true-up for 100% of their emissions by November 1 in the year following the end of the compliance period; for example, for a compliance period ending December 31, 2020, true-up would be required by November 1, 2021
- Ontario is also considering a one-time partial true-up during the first compliance period
 - This partial true-up could prepare entities and program operations staff for the final true-up at the end of the first compliance period
 - Would require that compliance units be surrendered for only a portion of emissions
- Consistent with WCI design recommendations, an entity will be permitted to use offset credits for up to 8% of its total compliance obligation for each compliance period
- For entities with a compliance obligation, the requisite number of compliance units from each entity's compliance account will be placed into a retirement account and retired
 - Any entity participating in the cap and trade market (i.e., including voluntary participants) may choose to voluntarily retire allowances or offset credits to benefit the environment

12. Compliance Requirements: Questions

- Is the proposed approach to demonstrating compliance suitable to an Ontario context? How could it be improved?
- Should Ontario include a requirement to submit allowances for a portion of emissions (partial true-up) to give companies and staff experience before the compliance deadline in 2021?
- If so, for what portion of the compliance obligation should companies be required to submit allowances, e.g., 25%, 50%, etc.?
- When should the partial true-up take place?

13. Enforcement and Penalties

- Regulatory contraventions in a cap and trade program include excess emissions (i.e., an entity does not have enough compliance instruments (i.e., allowances and/or offset credits) to cover its reported emissions), providing fraudulent or misleading information, and non-compliance with trading, auction, and market rules
- To ensure effectiveness in the event of non-compliance, WCI recommends that requirements must apply that:
 - Operate without requiring the cooperation of the covered entity
 - Are non-discretionary
 - Are of sufficient magnitude to incentivize compliance
- Quebec and California met the WCI principles by implementing:
 - A three-to-one rule: requirement to submit an additional three allowances for each allowance short at true-up, plus the allowance originally owed
 - Levying administrative monetary penalties for violations
 - Levying fines for identified offences
- If intending to link, Ontario's enforcement will need to align with stringency in Quebec's and California's programs as well as Ontario's provincial enforcement framework for environmental infractions

13. Enforcement and Penalties: Proposed Option

- An entity with excess emissions would be subject to a three-to-one compliance penalty where an additional three allowances for each allowance short at true-up is required, plus the allowance originally owed
- An emitter's holding account could be suspended if it fails to surrender the required quantity of allowances and/or offset credits needed to meet its compliance obligation
- Registration would not be allowed and would be revoked for participants and entities with a compliance obligation and their representatives found guilty in the previous five years of fraud, criminal offence related to the integrity of the market, insider trading, false or misleading information or an offence under a fiscal Act, Commodities Futures Act and Securities Act, including convictions of similar offences in the United States
- Ontario intends to develop rules on the application of administrative monetary penalties that would apply to both the reporting regulation and cap and trade regulation
 - These are financial penalties that can be established for a range of regulatory violations as an additional enforcement tool to quickly deal with non-compliance

13. Enforcement and Penalties

Questions

- Are the proposed enforcement provisions sufficient to ensure compliance in a cap and trade system? Should any of them be scaled differently? If so, which ones and how?
- What additional enforcement tools should Ontario consider to ensure compliance with program rules?
- What should Ontario consider in establishing an administrative penalty scheme?

Appendix 1: Proposed Offset Project Types

The following three protocols have been adopted for use in Quebec and/or California and will be evaluated for adaptation on an expedited basis.

- Mine methane capture and destruction
- Landfill gas capture and destruction
- Ozone Depleting Substances Capture and Destruction

The following project types will be subject to a more comprehensive development process:

- N₂O Reductions from Fertilizer Management in Agriculture
- Emission Reductions from Livestock
- Organic Waste Digestion
- Organic Waste Management
- Forest Project
- Afforestation
- Urban Forest Project
- Grassland
- Conservation Cropping
- Refrigeration Systems