Carbon Pollution Pricing in Canada

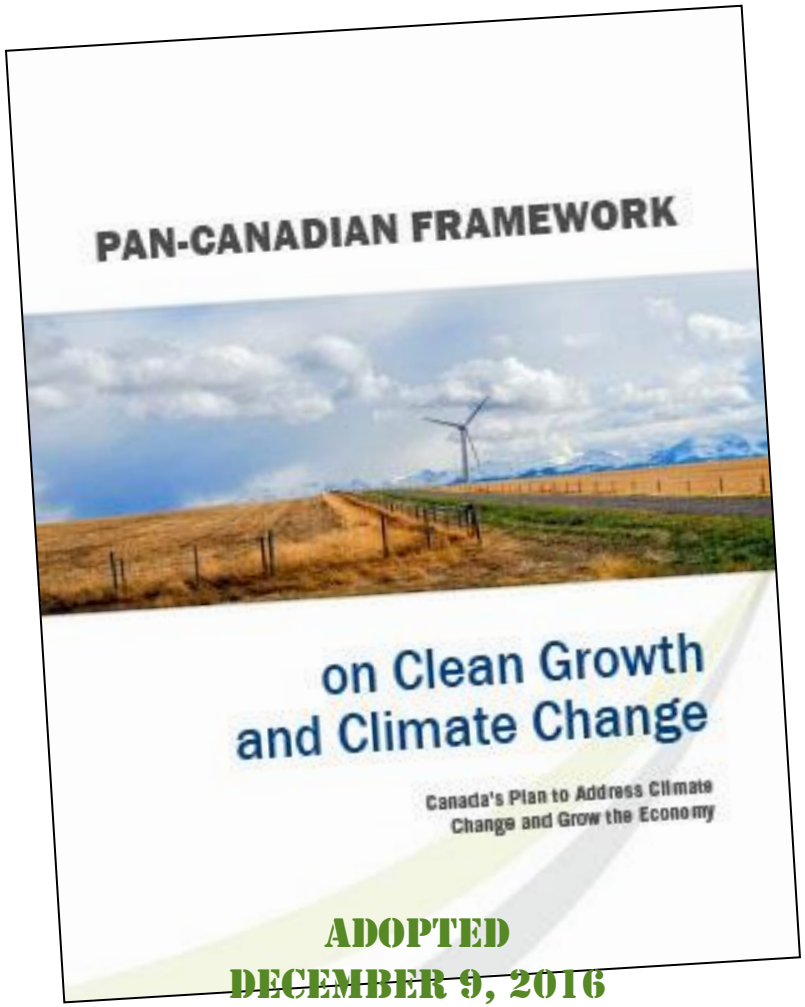
Environment and Climate Change Canada
November 23, 2018

Policy Context

Canada's Policy Context

- Canada is a highly decentralized federation, where environmental policy is an area of shared jurisdiction
- All levels of governments play a key role in climate policy
- Coordinated climate action is critical to reach our target
- Current climate plan is the first to include joint and individual commitments by federal, provincial and territorial governments

Canada's Climate Plan – 4 Pillars



Pricing carbon pollution

Complementary mitigation actions across all sectors

Adaptation and climate resilience

Clean technology, innovation & jobs

Pan-Canadian Approach to Pricing Carbon Pollution

Pan-Canadian Approach to Carbon Pollution Pricing (the federal benchmark)

- Timely introduction
- Common scope - broad set of sources
- Two systems - flexibility for explicit pricing system or cap-and-trade
- Legislated increase in stringency
  - explicit pricing system: $10/t in 2018, rising by $10 each year to $50/t in 2022
  - cap-and-trade system: 2030 emission reduction target at least matching Canada's; and declining caps that correspond at minimum to projected reductions resulting from the carbon price
- Federal backstop - apply in jurisdictions that do not meet the benchmark
- Revenues remain in the jurisdiction of origin
- Five-year review
- Reporting

Pan-Canadian Approach to Carbon Pollution Pricing (the federal benchmark)

- Gave provinces and territories two years to implement their own carbon pollution pricing system that meets stringency criteria
  - The benchmark

- Included commitment by the federal government to implement, in whole or in part, a federal carbon pollution pricing system in provinces and territories that request it and in those that do not have a carbon pollution pricing system that meets the federal benchmark
  - The federal backstop

Key Dates for Assessment

- By Mar 30, 2018 - All P/Ts asked to declare if they intend to adopt the backstop
- By Sep 1, 2018 - All P/Ts to provide details on their own systems, if applicable, for assessment against the federal benchmark
- By Jan 1, 2019 (at latest) - All jurisdictions must have a system in place
- Ongoing annual verification process to ensure carbon pricing systems continue to meet the benchmark

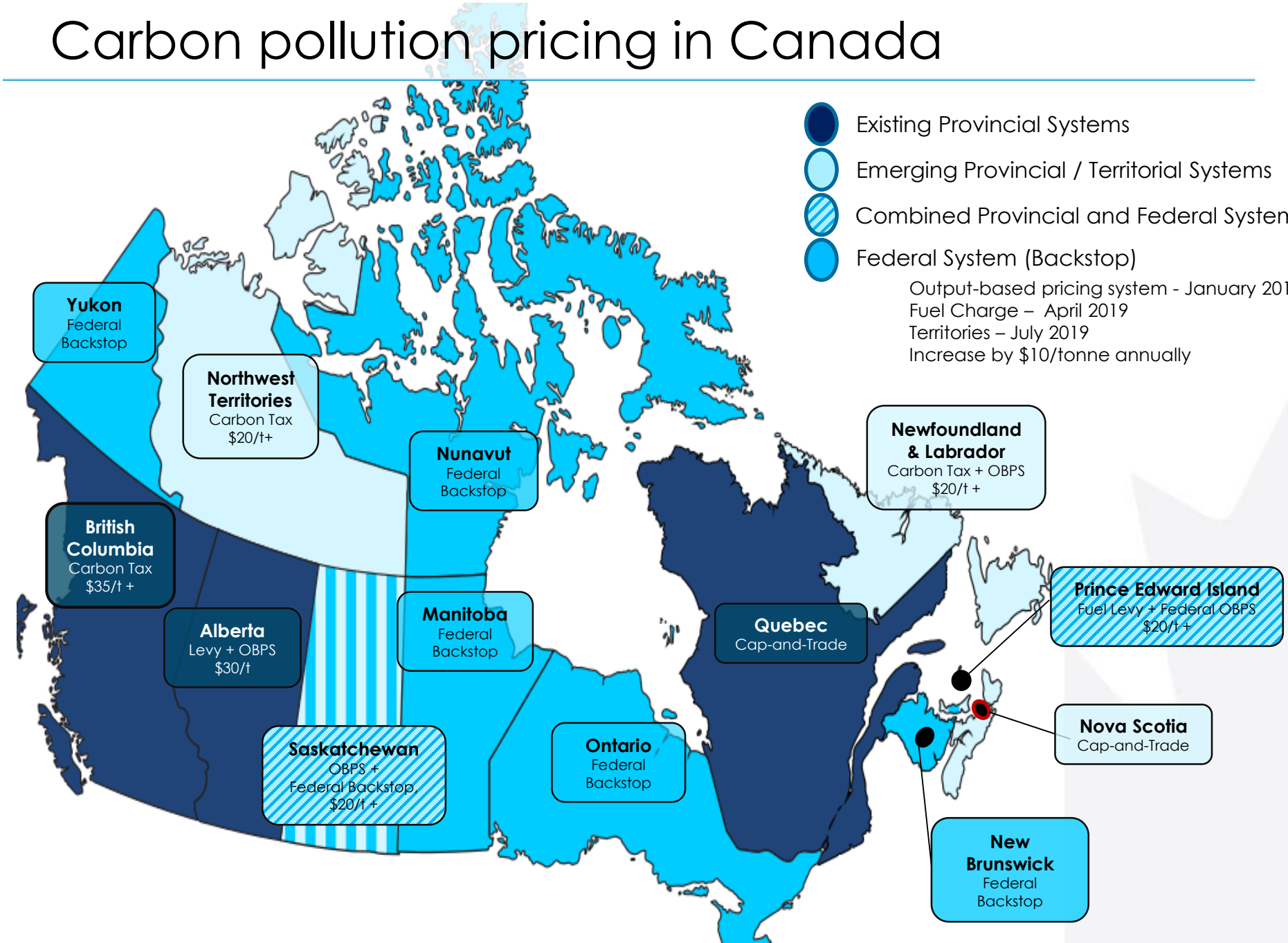
Existing Provincial Systems

Provincial / Territorial Progress: Existing Systems	
Cap-and-trade Systems	**Explicit Price Systems**
Quebec – established in 2013 and linked with California (2014) and Ontario (Jan to Jul 2018) Nov 2018 auction - price of $20.27CAD	**British Columbia** – carbon tax (2008), current price of $35/tonne (rising annually by $5/tonne to $50/tonne in April 2021) **Alberta** – carbon levy on heating & transport fuels (2017) and emissions intensity requirements for large emitters (2007), current price of $30/tonne

Emergent Provincial / Territorial Systems

Provincial / Territorial Progress: Systems in Development	
Cap-and-trade Systems	**Explicit Price Systems**
Nova Scotia –looking at cap and trade program; legislative amendments introduced Sep 2017 and regulations in Nov 2018	**Northwest Territories** – carbon tax - discussion paper and survey regarding carbon levy released in Jul 2017 **Newfoundland and Labrador** – released plan regarding carbon tax and output-based pricing system in Oct 2018 **Saskatchewan** – released proposed output-based performance standards system information in Aug 2018 (includes various industrial sectors; does not include electricty generation and natural gas transmission pipelines) **Prince Edward Island**– released information regarding fuel levy in Oct 2018 (requested federal OBPS)

Carbon pollution pricing in Canada



Federal Carbon Pollution Pricing System

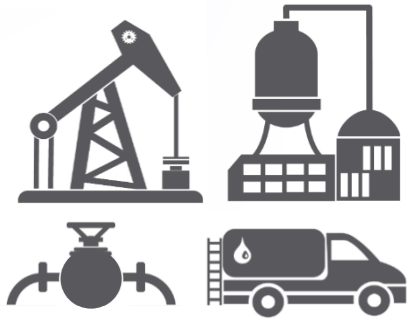
Federal System (the federal backstop)

- Under the *Greenhouse Gas Pollution Pricing Act*, adopted on June 21, 2018, the "backstop" has two parts:
  1. Regulatory charge on fuel
     - generally paid by fuel producers or distributors
     - $20 per tonne of O_2e in 2019, rising by $10 per year to $50 per tonne CO_2e in 2022

  2. Regulatory system for large industry - an output-based pricing system (OBPS) for emissions-intensive trade-exposed facilities
     - covers facilities emitting 50kt CO2e/yr or more; opt in capability for comparable smaller facilities
     - based on emissions intensity standards
- All direct revenue from backstop to be returned to jurisdiction of origin.
- Would only apply in whole or in part in provinces and territories that request it, or that do not have a carbon pricing system in place in 2018 that aligns with the federal benchmark

Federal System

FUEL PRODUCTION AND DISTRIBUTION



- Pay fuel charge to GoC
- 2019 rates (= \$20/t CO_2e):
  - Gasoline: 4.42 ¢/L
  - Light fuel oil: 5.37 ¢/L
  - Natural gas: 3.91 ¢/m^3
  - Propane: 3.10 ¢/L
- Some exclusions

FUEL DELIVERY

FUEL CONSUMPTION & HEATING FUEL

- Consumers do not pay the fuel charge directly to the federal government
- Fuel price paid by consumers will likely have costs of the fuel charge embedded

OBPS FACILITY

- Registered OBPS facilities will not generally pay the charge on fuels that they purchase
- Instead, will be subject to the carbon pollution price on the portion of emissions above a facility emissions limit

Federal System - Fuel Charge

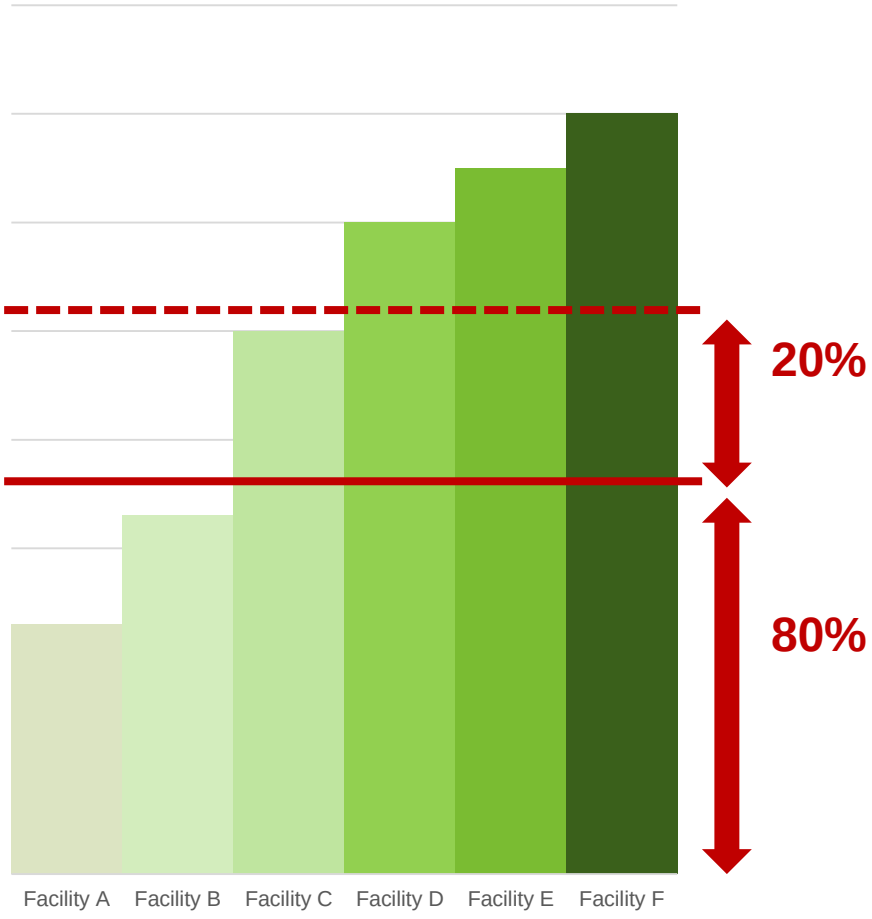
- Applies to a broad range of fossil fuels, including gasoline, light fuel oil ("diesel"), natural gas and coal
- Starts at $20/tonne in 2019 rising $10 per year to $50 in 2022

Fuel	Unit	2019	2020	2021	2022
Gasoline	$/litre	0.0442	0.0663	0.0884	0.1105
Diesel	$/litre	0.0537	0.0805	0.1073	0.1341
Marketable Natural Gas	$/$m^3$	0.0391	0.0587	0.0783	0.0979
Propane	$/litre	0.0310	0.0464	0.0619	0.0774

Federal System - Mandatory Participants

- Covered facilities:
  - Emitting 50 kt CO_2e or more (reported to the federal GHG Reporting Program for 2014 or a subsequent year);
  - Located in a backstop jurisdiction; and
  - Undertaking an activity/producing a product for which an output-based standard (OBS) is prescribed.

Federal System - Output-based Standards



- Output-based stadards are a mechanism to reduce carbon leakage and competitiveness risk
- In general, proposed 80% of production-weighted national average emissions intensity (some sectors are more)
- At sector or sub-sector level, or for a product or grouping of products
- Stringency will increase over time – timing and approach to be determined
- Where competitiveness risks are high, adjustments to the starting point may be considered

Federal System - Output-based Standards Currently Under Development

- Initial sectors (Batch 1):

Base Metal Smelting and Refining	Bitumen and Heavy Oil Upgrading	Electricity
Mining	Bitumen and Heavy Oil	Chemicals (Ethanol)
Iron Ore Pelletizing	Refining	Nitrogen Fertilizers
Potash	Natural Gas Processing	Pulp and Paper
Lime	Natural Gas Pipelines	Other Manufacturing (Food Processing)
Cement	Iron and Steel	

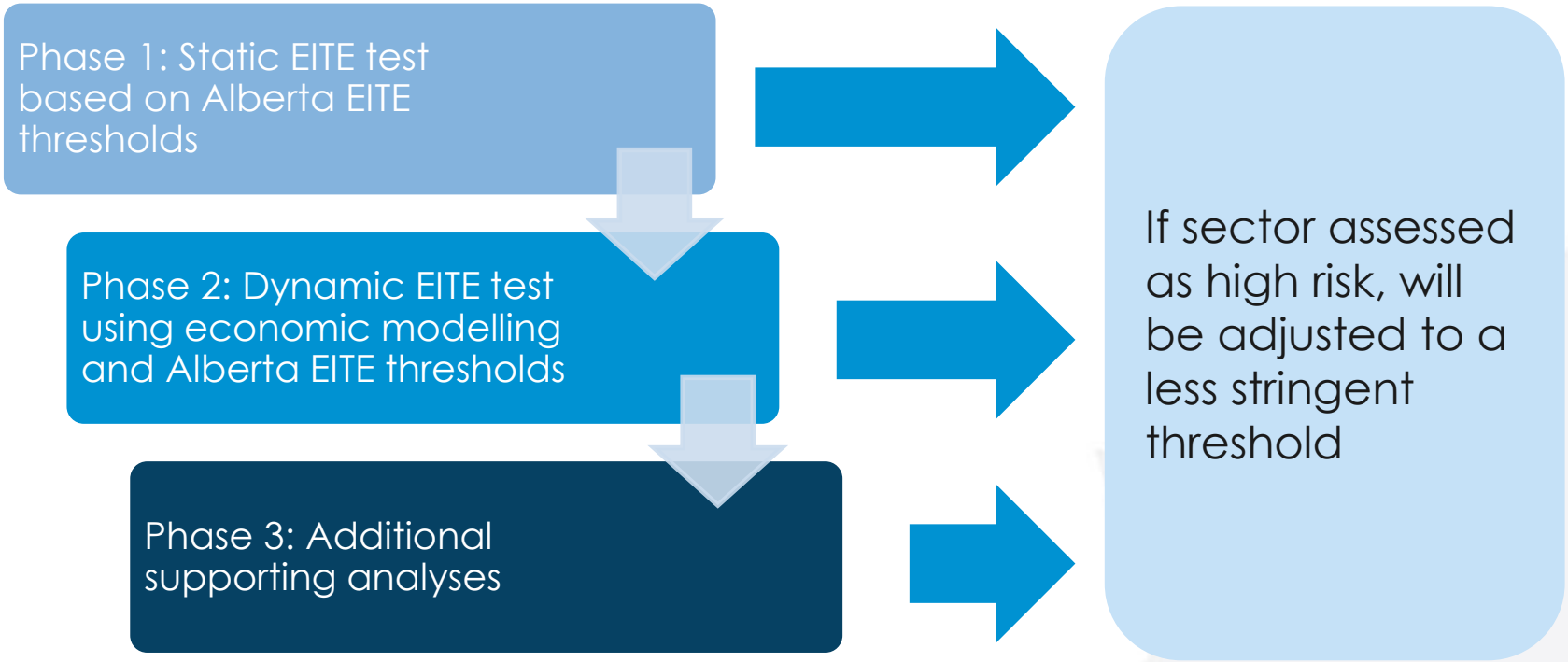
- Recent sectors (Batch 2):

Chemicals - Carbon Black, High Value Chemicals, Aromatics (BTX), Polyethylene, Hydrogen, Styrene, Citric Acid, MPMD, Pharmaceutical, Nylon resin and Nylon fibres		
Natural gas liquids production	Wet corn milling	Automotive
Iron and steel – integrated	Food – Sugar	Glass
Tubes	Distilleries	Mineral wool insulation
Gypsum panel manufacturing	Brick manufacturing	

- Additional standards will be developed over time

Federal System - Output-based Standards Assessment of Competitiveness and Leakage Risk

- Objective of OBPS is to address competitiveness and carbon leakage risk while retaining carbon price signal and incentive to reduce GHG pollution



Federal OBPS System –Compliance

- Annual facility emissions limits calculation:

$$Annual\ Facility\ Emissions\ Limit\ (t\ CO_2e) = \sum_{i=1}^{n} [OBS_i \left(t \frac{CO_2e}{Units\ i} \right) x\ Production\ (units\ i)$$

- Compliance obligation calculation:

$$Compliance\ obligation\ (t\ CO_2e) = Total\ Annual\ Facility\ Emissions - Annual\ Facility\ Emissions\ Limit$$

- If a facility emits over its annual limit, its compliance obligation can be met by:
  - submitting surplus credits issued by the federal government;
  - submitting eligible offset credits;
  - paying an excess emissions charge to the Government of Canada; and/or
  - submitting a combination of any of the above three compliance options.

Federal System – Compliance Units

- Surplus Credits:
  - A facility that emits less than its annual emissions limit will receive surplus credits.
  - Each surplus credit represents one tonne CO2e.
  - Only federal OBPS surplus credits will be accepted for compliance with the OBPS.
  - Expiry limit of 5 years following year of issuance.

- Offsets Use in the OBPS.
  - To support short term availability, certain eligible offsets from provincial and territorial offset programs will be accepted for compliance.
    - Offset programs are currently established in British Columbia, Alberta and Quebec.
  - May develop federal system in time.
  - Domestic reductions are initial focus; however, may consider international credits (ITMOs) once the Paris Rulebook is agreed.

Federal System – Next Steps

- OBPS Regulations:
  - October 31, 2018: Published regulations with registration, quantification, reporting and verification requirements, starting January 2019
  - Fall 2018: Publish regulations with registration, quantification, reporting and verification requirements, starting January 2019
  - Fall 2018: Publish draft regulations with performance standards, for comment
  - Spring 2019: Publish final OBPS regulations
    - Will apply retro-actively to the full calendar year 2019 as the first compliance period

- Application:
  1. Regulatory system for large industry (the Output-Based Pricing System or OBPS) – will apply starting in January 2019 in backstop provinces
  2. Regulatory charge on fuel – will apply starting in April 2019 in backstop provinces.
  3. Both parts will apply in backstop territories on July 2019

Investment of Proceeds

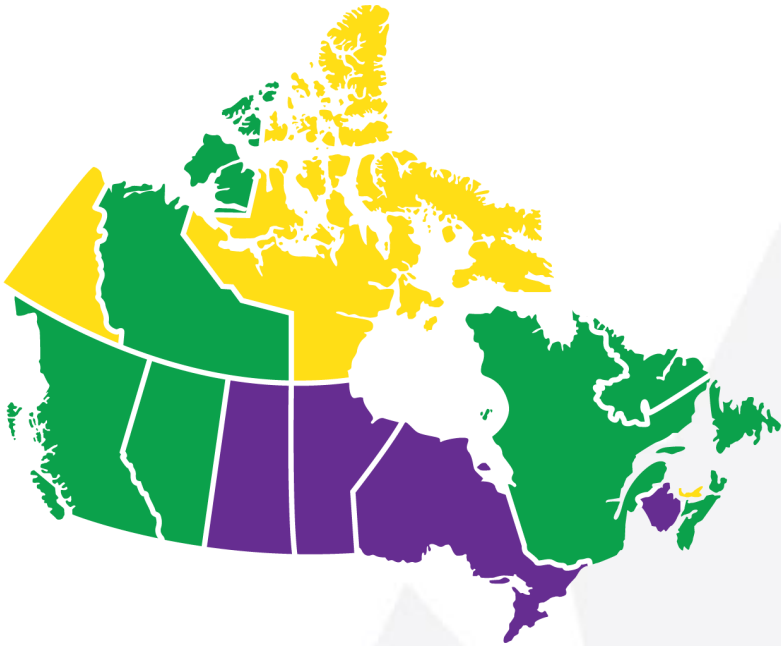
Approach to carbon pollution pricing proceeds

- Provinces and territories with their own carbon pollution pricing systems can use proceeds to support their residents, grow the economy, and protect the environment (green on map)
  - British Columbia, Alberta, Quebec, Northwest Territories, Nova Scotia, Newfoundland and Labrador, Prince Edward Island
- Proceeds from the "backstop" (fuel charge) will be returned directly to the governments of provinces and territories that requested it
  - Yukon, Nunavut

Returning proceeds in the remaining provinces

Saskatchewan, Manitoba, Ontario and New Brunswick (purple on map)

- Fuel charge proceeds*
  - Approximately 90% will be returned to residents through Climate Action Incentive payments
    - Will include a 10% supplement for residents of small communities and rural areas, in recognition of their specific needs.
  - The remaining portion will support SMEs, colleges & universities, schools, hospitals, municipalities, non-profits, Indigenous communities
- Output-Based Pricing System proceeds
  - Will not be used for Climate Action Incentive payments
  - Will be used to support future climate actions in the jurisdiction in which the revenue is raised
  - Details to be outlined further in early 2019



**subject to Parliamentary approval*

Climate Action Incentive Payments

- Individuals and families will claim their Climate Action Incentive payment when they file their tax returns (starting in early 2019), and will receive it as part of their tax assessment
- Amounts will vary by province (depending on annual proceeds from the fuel charge in the province) and will vary by family size
- Residents of small and rural communities will receive a 10% supplement
- Average middle-class family will receive more in payments than the direct costs resulting from carbon pollution pricing
- All proceeds will be audited and reported annually to ensure revenue neutrality and that they are returned to the jurisdiction of origin

Studies and Reviews

Pan-Canadian Approach – Studies & Reviews

- Studies and Reviews:
  - Territorial Analysis - complete
  - Emissions-intensive Trade-exposed (EITE) Review – underway
  - 2020 Interim Review
  - 2022 Review to inform path forward

- Canadian Council of Ministers of the Environment project teams:
  - Pan-Canadian GHG Offsets Framework
  - International Mitigation

- These are federal, provincial, territorial initiatives.

Carbon Pollution Pricing Reviews

- Pan-Canadian Framework commitment to review carbon pricing systems.
  - Federal, provincial and territorial government commitment to work together to establish the approach to the review of carbon pricing
- 2020 Interim Review – An interim report will be completed in 2020 which will be reviewed and assessed by First Ministers
- 2022 Review:
  - The overall approach will be reviewed by early 2022
  - To confirm / provide certainty on the path forward
  - Including continued increases in stringency / including expert assessment of stringency and effectiveness that compares carbon pricing systems across Canada
  - Account for progress and for the actions of other countries in response to carbon pricing, as well as recognition of permits or credits from other countries

EITE Review

- EITE Review - As an early deliverable, the review will assess approaches and best practices to address the competitiveness and carbon leakage for EITE sectors resulting from the application of carbon pricing.

Objectives -

1. Identify the components of the Canadian economy that may face competitiveness or carbon leakage risks as a result of carbon pricing and the degree of risk (i.e. relative significance)
2. Identify options and best practices associated with carbon pollution pricing to mitigate competitiveness and carbon leakage risks for EITE sectors
3. Identify metrics to track impacts on competitiveness and carbon leakage over time