Cap-and-Trade in Canada: An Overview

Cap-and-trade is a market-based approach to reducing greenhouse gas (GHG) emissions. Here is what Canadian Manufacturers need to know.

What is Carbon Pricing?

Putting a price on carbon is widely accepted as one of the most effective ways to reduce greenhouse gas[1] (GHG) emissions. There are two main approaches to putting a price on carbon: a carbon tax and/or a cap-and-trade system. A carbon tax and cap-and-trade can be used individually or together. For example, British Columbia has a carbon tax, Quebec and Ontario have cap-and-trade systems, and Alberta has a hybrid system that combines a carbon tax with a cap for large industrial emitters.

The federal government has outlined a mandatory benchmark for pricing carbon which all jurisdictions will be required to meet by 2018. Provinces and territories that do not have existing systems in place can decide whether to implement a carbon tax and/or cap-and-trade system. The carbon pricing benchmark is set at a level that will help Canada achieve its plan to reduce GHG emissions by 30% below 2005 levels by 2030. For jurisdictions implementing an explicit price-based system, the carbon price should start at a minimum of $10 per tonne in 2018, and rise by $10 per year to $50 per tonne in 2022.[i]

What is Cap-and-Trade?

A cap-and-trade system allows the market to put a price on GHG emissions. A governmental body or regulatory agency sets a cap on emissions with the goal of reducing those emissions over time. A cap is a specific amount of GHGs that companies and industry sectors are allowed to emit each year. Governing bodies issue permits in the form of allowances for companies to submit against their capped emissions for compliance. These allowances are distributed to companies either through a direct allocation and/or an auction. As the cap declines, the market supply of allowances should get tighter, which may lead to higher prices.

Companies that emit less than their annual allowance can sell their unused allowances. Conversely, companies with excess emissions can buy extra allowances to cover their obligations.

Emission Allowances

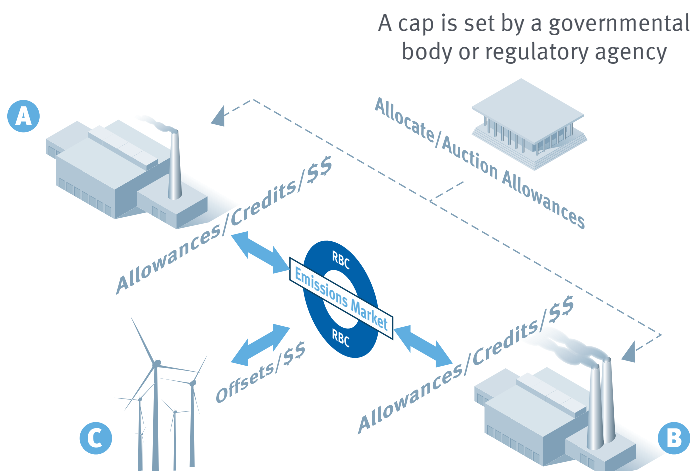
Each allowance permits a company to emit one tonne of GHGs. These allowances are tradable commodities. For instance, if a company reduces its GHG emissions below the cap, it can sell its unused allowances to a company that hasn't done so well in reducing emissions. Market dynamics of supply and demand determine the price of allowances.

If a company has a cap of 90 tonnes but emits 100 tonnes, it has one of three options:

1. Purchase 10 emission allowances in the market;
2. Take action to reduce its emissions;
3. Purchase carbon offsets. Offsets are emission reduction projects such as renewable energy.

Conversely, a company emitting 10 tonnes below its cap can trade its extra 10 allowances in the market or bank them for future use.

CAP-AND-TRADE



A Company A's emissions are below the cap
- Cleaner technology
- Sell excess credits to receive revenue

B Company B has exceeded their emissions cap
- Buys credits needed to comply
- Monetary incentives to clean up

C Offsets are generated by projects designed to reduce greenhouse gases

Mandatory and Voluntary Markets

Companies may be compelled to participate in a mandated cap-and-trade system or may choose to participate in a voluntary one. Mandated systems are based on government regulations and policies requiring organizations to fulfill their annual cap obligations. Voluntary programs act in a similar way, but they function outside of government oversight. There are many reasons why companies might be motivated to engage in voluntary carbon markets, including:

- Meeting voluntary corporate reduction targets
- Preparing for potential regulatory requirements
- Acknowledging investors' increasing awareness of risks associated with GHG emissions

Existing Canadian Cap-and-Trade Markets

The Quebec cap-and-trade system was launched in January 2013. Companies in the industrial and electricity sectors that emit 25,000 tonnes or more of GHG emissions per year, as well as fossil fuel distributors, are required to participate. Quebec's cap-and-trade system has been linked to California's since 2014 as part of the Western Climate Initiative (WCI). All proceeds from the quarterly auction of emission allowances go to the province's Green Fund to support the implementation of its 2013-2020 Climate Change Action Plan.[ii]

The Ontario cap-and trade system was launched in January 2017. Companies that emit 25,000 tonnes or more of GHG emissions per year are required to participate, as are electricity importers and fuel suppliers that sell more than 200 litres of fuel per year. Facilities that generate between 10,000-25,000 tonnes of GHG emissions per year may choose to opt into the program as voluntary participants subject to the same rules as mandatory participants. Ontario intends to link its cap-and-trade system to Quebec and California by 2018. All proceeds from the quarterly auction of emission allowances must be invested back into projects that reduce GHG emissions, such as public transit, electric vehicle incentives, and social housing retrofits.[iii]

What does cap-and-trade mean for Canadian manufacturers?

Different provincial carbon pricing policies may create a competitive disadvantage for some economic sectors. For example, sectors that use more energy or rely on processes that produce substantial GHG emissions and sectors with interprovincial or international trade exposure are more likely to feel competitiveness pressures. However, there are only a few sectors in Canada for which these pressures are significant, such as petrochemicals, cement manufacturers, refining and steel.[iv]

To address these concerns, the Quebec and Ontario governments allocate free emission allowances to some large industries that are energy intensive and exposed to competition. These free emission allowances are intended to provide transitional support while companies adjust to the policy.

In addition to free emission allowances, the Quebec and Ontario governments offer incentives to encourage investment in technologies, machinery and equipment that enhance productivity and reduce emissions. Manufacturers who are better positioned to compete under carbon constraints as a result of their lower emissions intensity will be able to gain a competitive advantage in the transition to a low-carbon global economy.[iv]

References

i. Canada – Pricing Carbon Pollution
ii. Quebec Cap and Trade System
iii. Ontario Cap and Trade System
iv. Ecofiscal Commission Carbon Pricing Competitiveness Report November 2015

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1. Greenhouse gases are gases that trap heat in the atmosphere. Carbon dioxide (CO2) is the primary greenhouse gas emitted through human activities. The main human activity that emits CO2 is the combustion of fossil fuels (coal, natural gas, and oil) for energy and transportation, although certain industrial processes and land-use changes also emit CO2.

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