Navigating Canada’s Evolving Carbon Markets

Mechanisms for trading carbon credits are widely recognized as crucial for achieving significant emissions reductions, especially as Canada sets more ambitious climate targets. Despite nearly 30 years of interest in emissions trading, carbon credit markets in Canada remain fragmented, lack liquidity and require regulatory development and stability. Canada has yet to create a national, integrated market for carbon emission reduction products with fungibility and transparency. Instead, a patchwork of provincial regulatory frameworks and voluntary and public sector initiatives have emerged in Canada.

Substantial opportunities exist for industries to use carbon finance in their efforts to meet emissions reduction objectives. Canada’s carbon markets, though currently fragmented, are continuing to advance with significant potential for both compliance credits and voluntary carbon finance tools. This is principally driven by increasing demand arising from the adoption of net-zero targets and climate risk management strategies. Stakeholders are actively pursuing opportunities to standardize regulations and expand protocols.

Notwithstanding uncertainty arising from the current political climate, carbon markets present an evolving and exciting opportunity for participants to reach their emission reduction targets.

Compliance and voluntary markets

In Canada, two types of markets facilitate carbon credit trading: compliance markets and voluntary markets. In Canada's compliance markets, large emitters are under legal obligations to reduce carbon emissions or use carbon credits established under such regulatory frameworks to meet those obligations. In compliance markets, one carbon credit represents one tonne of covered emissions, which is measured in carbon dioxide equivalents. Carbon emissions in this type of market are regulated in each province under the federal framework, a provincial framework, or a hybrid federal-provincial regime.

The federal industrial compliance market framework, provided through the *Greenhouse Gas Pollution Pricing Act* (GGPPA), regulates carbon emissions from large industrial emitters through minimum carbon pricing standards. This framework applies in provinces and territories that do not meet the GGPPA's pricing and output-based emission benchmarks. Provinces can meet the federal pricing and emissions targets through a provincial carbon pricing system, where an output-based emissions limit is imposed on regulated emitting facilities. Alternatively, they can meet facility-specific fixed targets through a cap-and-trade system in which "allowances" of a certain quantity of emissions are allocated to regulated emitting facilities.

Voluntary markets serve as a non-regulatory means of directing financial resources to projects that deliver independently verified emissions reductions or other environmental benefits. This type of market operates independently of, and can be complementary to, compliance markets. Voluntary offset project developers are issued carbon credits from a private standards body that acts as a certifying and auditing agency. The voluntary carbon credit can then be bought by a carbon credit buyer. Similar to the compliance market, one voluntary carbon credit typically represents one tonne of covered emissions.

Emitters participate in voluntary markets to meet internal carbon reduction goals, achieve environmental, social, and governance (ESG) targets, fulfill customer contracts, address climate concerns, or offset emissions to comply with green bonds and sustainability-linked debt agreements.

Market activity and trading in carbon credits

Canada's carbon markets are characterized by a mix of immediate trading and longer-term agreements, each of which caters to different needs and strategies of market participants. Most market activity in both compliance and voluntary carbon markets consists of spot or short-term transactions, where existing carbon credits are bought and sold for immediate delivery, or delivery within a short timeframe.

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Recently, long-term arrangements have begun to emerge. These arrangements are typically tailored to specific credit-creating projects. They provide a consistent framework for trading carbon credits over an extended period, benefitting both buyers and sellers by providing a consistent supply of carbon credits and generating long-term revenues for emission reduction projects. A recent example of a long-term arrangement is the "first-of-a-kind" $1 billion long-term commitment [PDF] from Canada Growth Fund (CGF) to purchase from Entropy Inc. up to one million tonnes per annum of carbon credits generated by Entropy's carbon capture projects over a 15-year period.

Carbon contracts for difference (CCfD) are another mechanism that seek to create certainty for both emitters and developers of carbon reducing projects. Under these contracts, a credit-worthy party, which could be a government body or agency,

enters into a purely financially settled agreement with an organization that implements an emissions reduction project, with a set minimum price for carbon being specified. If the regulatory carbon price or other applicable carbon market index decreases below the agreed-upon price, the CCfD provider pays the organization the difference. Conversely, if the regulatory carbon price index increases above that set price, the organization pays the difference to the CCfD provider.

CGF recently announced an agreement with Markham District Energy Inc., the City of Markham's public energy utility, to support its wastewater energy recovery project in York Region. This 10-year carbon contract for difference will provide price certainty to Markham District Energy for carbon reductions resulting from the project, thereby reducing investment risk.

Challenges ahead with carbon trading

While there has been progress in the development of carbon trading markets, many challenges continue to impede the widespread adoption of carbon trading programs.

In compliance markets, notwithstanding the GGPPA framework, the fragmented nature of carbon regulation across provinces and territories creates challenges in recognizing credits from other jurisdictions. Emission offset quantification protocols and the ability to utilize carbon credits for compliance purposes remain inconsistent among some jurisdictions and non-existent in others, such as Ontario. This limits liquidity, restricting the supply of offsets available to regulated emitters and discouraging large-scale emission reduction project development.

Challenges in liquidity also affect voluntary markets. Carbon credits differ by project type, technology, geographic location, project sponsor and other factors, making it difficult to compare one credit to another. Differing voluntary standards and registries also limit the liquidity

and fungibility of voluntary carbon credits.

In compliance markets, regulatory emissions surcharges create a price ceiling for carbon credits. Compliance credits are therefore often traded at a discount to such regulatory price ceilings. Participants often have difficulty establishing pricing, particularly over longer time frames. While the GGPPA has set a federal minimum price for carbon emissions which has planned increases through 2030 from the current price of $80 per tonne to $170 per tonne, uncertainty persists about the means by which project stakeholders can access or leverage such pricing. Although voluntary markets have no theoretical price ceiling, low prices persist due to oversupply and limited investment in certain protocols.

Participants in Canada's carbon markets also face uncertainty regarding the long-term viability of emission offsets. This is principally a result of voluntary reduction activities being deemed "additional" to the *status quo* based on regulatory requirements or existing financial incentives. Initially recognized as innovative, these activities may eventually become standard practice as the transition to a low carbon economy accelerates. As a result, these emission reduction activities may no longer qualify for carbon offset credits. For instance, utility-scale renewable energy projects are becoming more common in a variety of provinces, and they are being financially supported with a variety of subsidies and revenue mechanisms. The benefits of such projects in relation to carbon reductions are increasingly being called into question.

Verifiers and regulators, while striving to maintain the legitimacy of environmental attributes, continue to be concerned about preventing double counting. This exists where the benefits of the same emission reduction activity are claimed by multiple parties. A lack of consistent rules across compliance and voluntary markets prevents a single project from being listed on multiple voluntary registries. As a

result, generators struggle to optimize market access by cross-listing credits.

Finally, Canada's political parties share diverging stances on how to address climate change. The federal election due to be held by October 2025 may bring further change to carbon markets in Canada. Future provincial elections may also have an impact. For example, after Doug Ford's Progressive Conservative party won the provincial election in 2018, the Ontario government eliminated the cap-and-trade system in Ontario and cancelled several emission reduction projects. These policy shifts create uncertainty and significantly affect long-term confidence in carbon markets.

Despite these challenges, there are many opportunities ahead for carbon trading.

Opportunities exist for carbon markets

Canada's carbon markets, though fragmented and uncertain, present evolving options for compliance credits and voluntary carbon finance tools, with significant growth potential. As organizations adopt, accelerate and implement net-zero targets and seek financial products to manage risks related to climate change, demand for high-quality carbon credits is rising as we move into 2025 and beyond, regardless of political trends. Carbon offsets will continue to present an effective means for project developers to generate revenues and secure project funding through the reduction, renewal and capture of carbon.

Reducing the fragmentation of carbon markets through the standardization of regulations and quantification protocols in both compliance and voluntary markets is imperative to strengthen carbon markets. Creating consistency and compatibility in carbon markets will allow for greater interjurisdictional cooperation and trading of credits across provinces. Further, greater integration between differing standards in voluntary markets could expand buyer and seller

pools. Finally, expanding offset quantification protocols in voluntary and compliance markets will increase the diversity of credit-generating emission reduction activities.

Development of international trading is another opportunity for carbon markets. The Paris Agreement is a multilateral international treaty on climate change adopted under the UN Framework Convention on Climate Change (UNFCC) of which Canada is a participating member. Article 6 [PDF] of the agreement seeks to develop carbon markets internationally for both private parties and participating countries themselves. Under Article 6, an organization in one country can sell carbon credits to an organization in another country and countries themselves can transact in their "internationally transferable mitigation outcomes". This development, which has been in progress since the expiration of the UNFCC's Kyoto Protocol in 2012, presents an exciting prospect for countries to work together to reduce carbon emissions.

Looking ahead

Carbon credit trading mechanisms are essential for Canada to meet its stated climate objectives. The future of carbon markets in Canada is poised for growth and transformation, driven by regulatory changes, market forces, and societal commitment to addressing climate change.

Emitters and developers of carbon reduction programs will want to follow emerging developments. Among these are the introduction of international carbon markets that broaden access to trading opportunities, as well as the availability of long-term transactions that mitigate risk. Staying informed about the regulatory landscape across jurisdictions is also crucial to allowing participants to understand the impact of changing government policy and regulation that defines these emerging markets. While there are challenges to be navigated, the potential for carbon markets to contribute to Canada's climate objectives is significant. The success of these

markets will hinge on thoughtful design, robust implementation, and ongoing adaptation to emerging trends, regulations and technologies.

The content of this article is intended to provide a general guide to the subject matter. Specialist advice should be sought about your specific circumstances.

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