

CARBON MARKET BUSINESS BRIEF

CANADA FEDERAL OUTPUT-BASED PRICING SYSTEM (OBPS)

CANADA'S OBPS AT A GLANCE

Years in operation	Began in 2019, with annual compliance periods.
Overall cap & trajectory	<p>The OBPS applies to facilities that emit over 50,000 tCO₂e/year. Facilities that emit over 10,000 tCO₂e in regulated sectors can opt-in to the OBPS at any time. Emission reduction obligations are determined using an output-based standard (OBS). The OBS varies based on the industrial activity and the competitiveness of the sector.</p> <p>The OBPS is currently implemented in Manitoba, Ontario, New Brunswick, Yukon, Nunavut, and applies to the electricity and natural gas transmission sectors in Saskatchewan.</p>
Target(s)	30% below 2005 levels by 2030, to reach 511M tCO ₂ e. Canada also intends to reach net-zero emissions by 2050 and set legally binding five-year emission reduction targets.
Emissions Reduced to date	No data available yet
Sectors covered	<p>Sectors covered under the OBPS include:</p> <ul style="list-style-type: none"> • Oil and gas production • Mineral processing • Chemicals • Pharmaceuticals • Iron and steel • Mining and ore processing • Lime and nitrogen fertilizers • Food processing • Pulp and paper • Automotive • Electricity generation • Cement <p>The Cement, iron and steel manufacturing, and lime and nitrogen fertilizer sectors have been deemed to have high competitiveness risk – facilities in these sectors have their OBS set accordingly.</p>
GHGs covered	<ul style="list-style-type: none"> • CO₂ • CH₄ • N₂O • SF₆ • PFCs • HFCs <p>The OBPS covers 27% of GHG emissions where the backstop applies.</p>
# of covered entities	217 registered in 2019

Allocation method	OBS are set by industrial activity and are based on the sector's average emissions intensity. OBS for sectors at low or medium competitiveness risk are set at 80% of the sector's average emissions intensity, while OBS for sectors are high risk are set at 90% or 95%.
Trading rules	<p>A facility may comply through any combination of payment of the Excess Emissions Charge; use of Surplus Credits; use of Recognized Units (approved provincial offset credits); and use of Offset Credits.</p> <ul style="list-style-type: none"> • Surplus Credits have a five-year expiry limit. • Offset Credits have an eight-year expiry limit. • Surrendered compliance units are retired by ECCC. • A facility may choose to voluntarily retire their compliance units.
Use of offsets and linking	Entities can use Offset Credits from the Federal GHG Offset System (currently under development) and Recognized Units from approved provincial offset systems (Alberta and British Columbia as of March 2021). The 2019-2021 compliance periods do not have compliance unit usage limits, while the 2022 compliance period will apply a 75% cap.
Other features	<p>Programme reviews:</p> <ul style="list-style-type: none"> • 2021: Interim review of the Pan-Canadian Pollution Pricing benchmark, focused on competitiveness and energy-intensive trade-exposed industries • 2022: Total review of the OBPS Regulations
Penalties for non-compliance	If the compliance deadline is missed, compliance is due at an increased rate of four to one (4:1). Facilities are required to submit four compliance units for each tCO ₂ e over the Emissions Limit or four times the Excess Emissions Charge rate.
Use of revenues	All proceeds collected from OBPS compliance payments will be returned directly to regulated emitters to support GHG emission reduction projects and the use of lower-carbon technologies and processes.

MAJOR DEVELOPMENTS

Over the past year, progress on the development and implementation of the Federal GHG Offset System has been made. In 2020, a discussion paper on how the offset system will be designed was released along with a draft list of proposed priority project types for protocol development. In 2021, a more finalised list of project types for protocol development was released, highlighting four priority project types: Advanced Refrigeration Systems, Improved Forest Management, Landfill Methane Management, and Enhanced Soil Organic Carbon.

In addition, a government review of the OBPS is ongoing, which will evaluate the program's contribution to Canada's GHG emission reduction goals, as well as consider new OBS, examine current OBS, and explore opportunities to reduce administrative burden. After initial stakeholder engagement, ECCC intends to release detailed proposals for stakeholder comment to inform future regulatory amendments. These amendments are targeted to come into force starting in the 2023 compliance period.

MARKET COMMENTARY

Even as the OBPS has entered its third compliance period, several key mechanisms are still being developed, including the Federal GHG Offset System and rules governing the use of Recognized Units.

Despite the compliance flexibility built in to the OBPS, it is anticipated that the market will have a significant shortage of compliance units. It is expected that the few facilities that will emit below their Emissions Limit will bank the Surplus Credits

they are awarded for future compliance periods when the Excess Emissions Charge price is significantly higher.

The delay of the OBPS reporting and verification deadline for the first compliance period (2019) to October 1, 2020 impacted the timing of the issuance of Surplus Credits to eligible covered facilities. However, since the compensation deadline for the 2019 period was delayed to April 15, 2020, this will not have an impact on the volume of Surplus Credits available in the OBPS to use for compliance.

ClearBlue’s current OBPS Supply and Demand Forecast can be seen below (Figure 1). As depicted by the balance bars in blue, it is expected that there will be a shortage of compliance units (Offset Credits, Recognized Units, and Surplus Credits) in the market to meet the demand from OBPS facilities. Overall, there was a slight covered emission decrease from 2019 to 2020 of approximately 0.5%¹ as a result of the COVID-19 pandemic. The New Brunswick provincial OBPS programme was approved retroactively to 1 January 2021 to replace the federal OBPS. Nonetheless, we see an increase in demand in 2021, which is attributed to a rise in Saskatchewan’s coal and diesel power output due to a declining Output-Based Standard for coal-fired generation. Meanwhile, a decrease in demand in 2022 is due to the 75% compliance unit usage limit that will be in force that year as well as Ontario exiting the OBPS programme as its provincial EPS comes into effect 1 January 2022.

As the government is currently in the process of developing the Federal GHG Offset System, relevant volume of Offset Credits was not available to the OBPS market by the first compliance deadline of 15 April 2021. ECCC published the draft regulations for the offset system on March 6, 2021 and the final regulations are expected to be published in Fall 2021. Once the regulations have been finalised and project development can commence, there will be further delays in bringing Offset Credits to market as offset projects typically take over a year to register and issue credits.

Credits from approved projects in active provincial offset registries will be eligible under the OBPS and are known as Recognized Units. Currently, only five protocols in Alberta’s offset system have been approved. The approved protocols are Aerobic Composting, Aerobic Landfill Bioreactor Projects, GHG Emission Reductions from Pneumatic Devices, Reducing GHG Emissions from Fed Cattle, and Selection for Low Residual Feed Intake for Beef Cattle. Although the British Columbia offset system has been approved, there are currently no approved protocols for Recognized Units. Therefore, the supply of Recognized Units for OBPS compliance is very low.

Within the expected low volume of Surplus Credits issued, the vast majority are expected to be generated from Indirect Surplus Credits. Indirect Surplus Credits are defined by a specific industrial circumstance involving thermal heat generation or cogeneration facilities that sell their excess steam produced to nearby facilities. The steam being bought by these nearby facilities results in lower emission values by these facilities. These Indirect Surplus Credits are likely to be tied to contractual obligations between facilities and therefore not available on the open market. These types of Surplus Credits are noted in Figure 1 as Indirect Surplus Credits Supply.

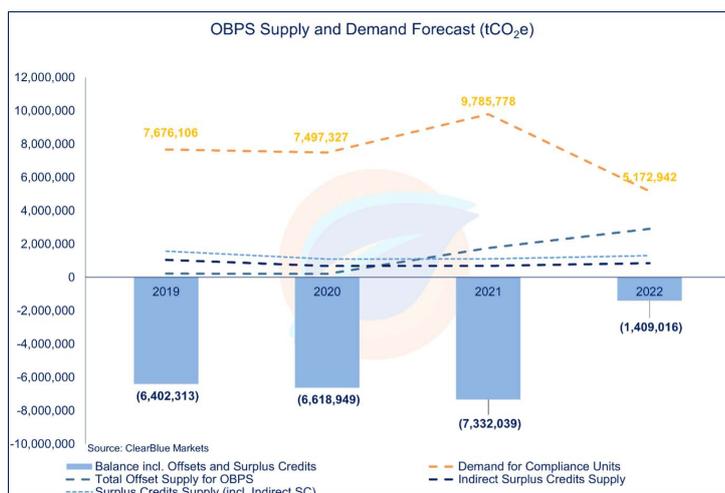


FIGURE 1
OBPS Supply and Demand Forecast (tCO₂e)

¹ The 0.5% decrease was determined by comparing the electricity usage rates from 2019 to 2020 in Ontario, specific facility electricity usage data, and looking at the electricity usage rate changes in other jurisdictions such as California and Quebec. An average of the values (0.5%) was taken.

In Canada, carbon pricing programs remain a political issue and there continues to be a risk of the OBPS being quickly scrapped by a future government, rendering unsold compliance units worthless. This risk may also drive compliance entities and offset developers to consider bringing compliance units to market earlier instead of waiting until 2021 or 2022 when the Excess Emissions Charge increases to C\$40 per tCO₂e and C\$50 per tCO₂e, respectively.

USEFUL LINKS

[Environment and Climate Change Canada, Pan-Canadian Framework on Clean Growth and Climate Change](#)

[Environment and Climate Change Canada, Pricing pollution: how it will work](#)

[Environment and Climate Change Canada, Output-Based Pricing System](#)

[Environment and Climate Change Canada, Technical paper: federal carbon pricing backstop](#)

[Environment and Climate Change Canada, Review of the federal Output-Based Pricing System Regulations](#)

[Environment and Climate Change Canada, Federal GHG Offset System](#)

[Environment and Climate Change Canada, List of Recognized Offset Programs and Protocols for the Federal OBPS](#)

REFERENCES

[Environment and Climate Change Canada, Canadian Environmental Sustainability Indicators: Progress towards Canada's greenhouse gas emissions reduction target](#)

[Minister of Environment and Climate Change Canada Mandate Letter](#)

[Environment and Climate Change Canada, Output-Based Pricing System Regulations](#)

AUTHORS

Katie Sullivan
Managing Director, IETA
sullivan@ieta.org

Ellen Lourie
Senior Policy Associate, IETA
lourie@ieta.org

Michael Berends
Managing Director, Origination, ClearBlue Markets
mberends@clearbluemarkets.com

Adi Dunkelman
Advisory Manager, ClearBlue Markets
adunkelman@clearbluemarkets.com