

September 4, 2023

Output Based Pricing System (OBPS) of the Canadian Federal Government

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1. Overview of climate change policies

It is necessary to note three points regarding the climate change policies of Canada: the uneven distribution of energy resources, the two major political parties that advocate diametrically opposed climate change policies, and the strength of the authority of the provincial and territorial governments.

Firstly, looking at the federal level, there are abundant fossil fuels such as shale gas, etc. and abundant renewable energy such as hydropower, etc., but the amount of these available differs greatly depending on the province and territory and this is an element which influences the policies of Canada overall.

Next, under the two-party system in Canada the conservative parties and the Liberal Party take diametrically-opposed policies every time there is a change of administration. For example, preparations for the introduction of emissions trading (ETS) were advanced under the Liberal Party administration in the early 2000s, but the Harper administration of the Conservative Party, which won the general election in 2006, canceled the introduction of the ETS.

Subsequently, in 2011 the administration announced Canada's withdrawal from the Kyoto Protocol and officially withdrew in the following year, but in the 2015 general election the Liberal Party won, the Trudeau administration was inaugurated, and consideration of the introduction of carbon pricing at the federal level was advanced. Then in June 2018, the Greenhouse Gas Pollution Pricing Act (GGPPA) was passed in the parliament, and the introduction of carbon pricing at the federal level was decided.

On the other hand, Saskatchewan, which has taken the position of opposing the introduction of carbon pricing, is dependent on coal-fired power plants, and has expressed concerns about the large economic burden due to carbon pricing. Finally, the Supreme Court recognized the position of the federal government and the GGPPA was implemented.

The GGPPA is broadly comprised of two pillars. These are a fuel charge with the transport sector, etc. covered by the regulations, and an ETS called the Output Based Pricing System (OBPS) targeting the industry sector. However, in Canada the authority of the provincial and territorial governments is

strong and implementation of the provinces’ and territories’ own carbon pricing is allowed as long as the provinces and territories satisfy the predetermined standards stipulated by the federal government. For example, before the inauguration of the Trudeau administration, Quebec and British Columbia had introduced their own carbon tax or ETS.

In this paper, we discuss the current basic principles of carbon pricing for the Canadian federal government overall and the OBPS covering the industry sector introduced based on those principles.

2. Overall picture of the carbon pricing system

The Pan-Canadian Approach to Pricing Carbon Pollution formulated basic principles on carbon pricing applied by the federal government of Canada, as shown in Table 1, in 2016. Based on the principles, the GGPPA bill that establishes more detailed systems was submitted to the federal parliament in January 2018, and it passed in the parliament in June of the same year. A principle in the Approach requires that the federal government respect existing climate change policies in the provincial and territorial governments, and when the provincial and territorial governments have already implemented the policies that meet the requirements (benchmarks) in the Approach, the federal government must allow them to continue the policies under the GGPPA. On the other side, where the province and territorial government fail to meet the requirement in the Approach (in the case that they have a system but it does not satisfy the standards or in the case that they do not have a system at all), federal government apply federal backstop (a charge and/or OBPS) to these provinces and territories.

Table 1: Overview of Pan-Canadian Carbon Pricing

Principles	<ul style="list-style-type: none"> • Carbon pricing should be implemented flexibly recognizing the existing initiatives of each province and territory. • Carbon pricing should cover a broad set of economic activities. • Carbon pricing should be introduced in a timely manner which keeps the negative impact on assets to a minimum and maximizes the amount of emissions reduction. • Carbon price increases should occur in a predictable and gradual way to limit economic impacts • Carbon pricing policies should minimize international competitiveness impacts and carbon leakage. • The proceeds shall be utilized to avoid a disproportionate burden on socially vulnerable people such as the poor and indigenous peoples, etc.
Major benchmarks	<ul style="list-style-type: none"> • Carbon pricing will be applied to common sectors covered by the regulations (it is necessary to cover nearly all of the economic sectors). • An explicit price setting system (carbon tax) or ETS should be introduced. • Carbon tax: in 2018 the price per t-CO₂e should be set at CA\$10 (CA\$1 = 107.6 yen), subsequently, it should be raised by CA\$10 per year to CA\$50 in 2022. • In the case of an ETS: targets for 2030 should be equal to or greater than those of the federal government overall, and should be at a level at which it is possible to achieve an amount of emissions reduction equal to the carbon tax by 2022.

(Source) Canadian government, Pan-Canadian Approach to Pricing Carbon Pollution (October 3, 2016 announcement)¹

¹ Refer to the following website.

<https://www.canada.ca/en/environment-climate-change/news/2016/10/canadian-approach-pricing-carbon-pollution.html>

After the GGPPA bill was passed, the federal government asked each provincial and territorial government to submit a carbon pricing plan by September 1, 2018, and in October it evaluated the carbon pricing implemented in each province and territory. As a result, the provinces and territories to which federal backstop would be applied from January 2019 were decided. The status of the application for each province and territory is shown in Table 2.

In British Columbia and Quebec, which had introduced carbon pricing before the federal government, application of the provinces’ own systems was allowed, while Saskatchewan, Ontario, Alberta opposed carbon pricing and fought with the federal government all the way to the Supreme Court, but in the end, the federal backstop was applied to them. The other provinces and territories of Prince Edward Island, Yukon, and Nunavut chose to apply the federal backstop. Furthermore, the method of application differs depending on the province and territory, and there are various cases on the application of the federal backstop; cases in which both the fuel charge and the OPBS are applied and cases in which only one of them is applied.

Table 2: Provinces and territories applied Federal backstop
(Provinces and Territories to which the Fuel Charge and OPBS are Applied)

Provinces and territories to which the fuel charge is applied		Provinces and territories to which the OPBS is applied	
When application commenced	Province or territory	When application commenced	Province or territory
April 1, 2019	Ontario New Brunswick ² Manitoba Saskatchewan	January 1, 2019	Ontario (excluded from application from January 2022) New Brunswick (excluded from application from January 2021) Prince Edward Island Manitoba Saskatchewan (excluded from application from January 2023)
July 1, 2019	Yukon Nunavut	July 1, 2019	Yukon Nunavut
January 1, 2020	Alberta		

(Source) Prepared by The Institute of Energy Economics, Japan (IEEJ) based on GREENHOUSE GAS POLLUTION PRICING ACT ANNUAL REPORT FOR 2021

Moreover, there are provinces to which the OBPS was applied initially, but they were subsequently excluded from its application (Ontario, New Brunswick, Saskatchewan). These provinces each introduced their own ETS systems covering the industry sector in each jurisdiction, and the federal government recognized that these systems meet requirements, so the OBPS has no longer applied to them.

² Regarding New Brunswick, the province’s own fuel charge was implemented from April 1, 2020, so application of the federal backstop was stopped.

3. ETS system design

3.1. Outline of system

The OBPS makes it mandatory³ for the facilities covered by the regulations to calculate the emissions limit by multiplying the production volume every year by the Output Based Standard (OBS). Then, in the case that the actual emissions exceed these emissions limits, it is mandatory⁴ to pay a charge or submit offset credits which are allowed for the use of compliance in order to compensate for the excess amount. On compensation, the use of offset credits has some restrictions; regulated facilities are allowed to use the offset credits for a maximum of 75% of the excess emissions. For that reason, it is necessary to pay the charge of at least 25%. The charge will rise every year. In 2019, at the beginning of the year of OPBS, the charge was at CA\$20 per ton, and in the subsequent years the charge rose by CA\$10 each year until 2022, but from 2023 onward this changed to CA\$15 every year.

On the other hand, in the case that the emissions fall below the emissions cap calculated using the above method, surplus credits that can be sold to other companies are issued by the government.

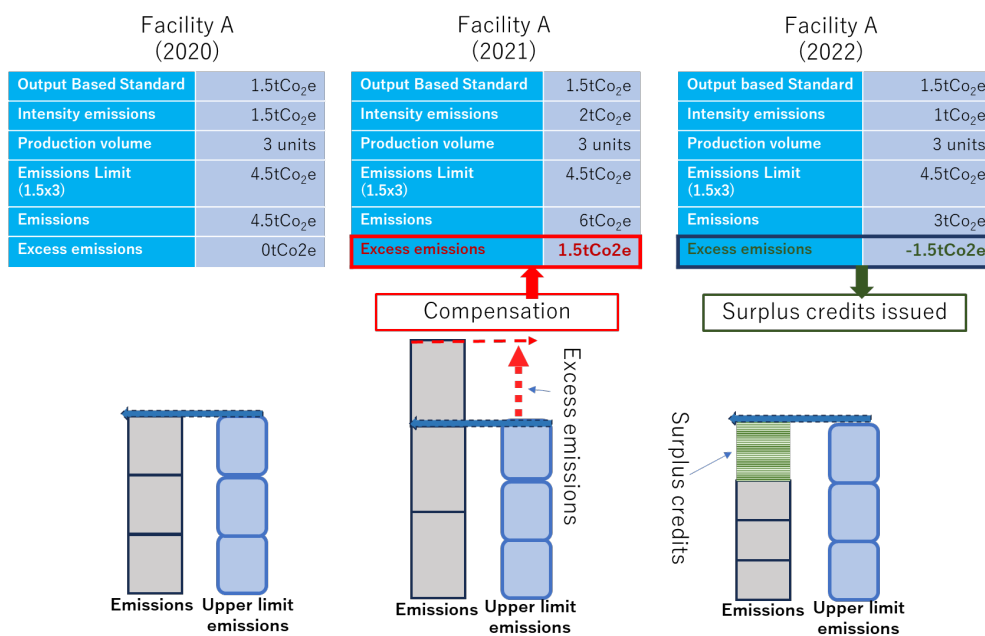


Figure 1: Setting of emissions limit and issuance of surplus credits in the OBPS

(Source) Prepared by The Institute of Energy Economics, Japan (IEEJ) based on various materials

The OPBS has unique characteristics compared to the systems of other countries. Firstly, there is the fact that it does not regulate the total amount of emissions; it regulates based on CO₂ intensity.

³ Refer to sections 36 to 38 of the Output-Based Pricing System Regulations (SOR/2019-266).

<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/page-5.html#h-1184433>

⁴ Refer to section 54 through section 69 of the previously cited materials (Note 3).

<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/page-8.html#docCont>

Table 3 shows the status of emissions in the regulated facilities by the OPBS. In 2019 total emissions were 62.29 million t-CO₂e, with excess emissions of 8.42 million t-CO₂e, and in 2020 total emissions decreased to 56.50 million t-CO₂e, but excess emissions increased to 8.52 million t-CO₂e. It is likely that in this period production volume decreased and therefore total emissions also decreased, but CO₂ intensity did not improve, so excess emissions increased.

Table 3: OPBS Implementation Status⁵

Year	Total emissions reported (CO ₂ e Mt)	Excess emissions (CO ₂ e Mt)	Surplus credits issued (CO ₂ e Mt)	Compensation measures	
				Charge payment (CO ₂ e Mt)	Surplus credits submitted (CO ₂ e Mt)
2019	62.29	8.429	0.909	8.180 (97%)	0.249 (3%)
2020	56.5	8.526	1.102	7.786 (91%)	0.741 (9%)

(Source) Prepared by The Institute of Energy Economics, Japan (IEEJ) based on the Greenhouse Gas Pollution Pricing Act: Annual report for 2021

The other point is that the OPBS does not distribute in advance the emission quota to the facilities covered by the regulations; only surplus credits are issued in the case that the emissions of the regulated facilities fall below the emissions limit. As shown in Table 3, surplus credits were issued in 2019 and 2020. It is highly likely that they were used in compensation for excess emissions. Furthermore, it is possible that there could be some transactions of surplus credits among companies, but there is no publicly released information about it. The regulated facilities could transact surplus credits with negotiating others as the OTC transactions, and in this type, there is no publicly available information on price and volumes.

3.2. Allocation methods

In the OPBS, emission quotas are never distributed from the regulatory authority, free or auction. In the case that emissions reported from the regulated facilities fall below the emissions limit, the Minister of Environment and Climate Change of the federal government issues⁶ surplus credits with respect to the difference from the emissions limit.

Regarding the CO₂ intensity emissions standards necessary for calculating the emissions limit, in

⁵ Refer to the Greenhouse Gas Pollution Pricing Act: Annual report for 2021. <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/greenhouse-gas-annual-report-2021.html#toc23>

⁶ Refer to section 59 of the previously cited materials (Note 3) for the calculation method. <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/page-8.html#h-1184777>

2018 the Canadian federal government presented⁷ the method of calculating the CO₂ intensity, the Output Based Standard(OBS) in each industry sector or facility explaining the basic approach of the OBPS. According to the explanation, the OBS is developed by multiplying emissions intensity in each sector by an emissions reduction factor. The emissions reduction factor is determined for each sector by considering situations in the sector concerned, in particular international competition. Based on this approach, OBS for industry sectors, business types, and products were provided in the OBPS.⁸

For industrial sectors facing international competition, OBS is calculated using modified emissions reduction factors. For cement, production of steel, lime, nitrogen fertilizer, a factor of 90% is applied and, a factor of 95% is applied to white cement, dolomitic lime, specialty lime, production of steel in an electric arc furnace. For other sectors, an emissions reduction factor of 80% is applied.

In the above original proposal in 2018, the Canadian federal government proposed⁹ CO₂ intensity emissions standards calculated by multiplying Canada's production-weighted national average of CO₂ intensity by an emissions reduction factor of 70%. However, the original proposal was adjusted taking into account a variety of factors (the treatment of facilities with the smallest CO₂ intensity, the distribution of CO₂ intensity within sectors, sectors facing international competition, etc.) and subsequently, room for adjustment was left.

In order to adjust the original proposal, a process for consultation with Canada's domestic stakeholders (the provincial and territorial governments, indigenous peoples, the industrial world, etc.) was held. In parallel with this, technical review work was carried out in the federal government. After completing this process, the federal government of Canada decided that the impact on industrial sectors facing international competition in the original proposal should be taken into consideration, and reviews of the risks to international competitiveness and to carbon leakage were carried out.¹⁰

As a result of these reviews, the industrial sectors, business types, and products facing international competition were specified and emissions reduction factors of 95% and 90% were applied as emissions reduction factors. Moreover, the other industries' emissions reduction factor was also changed to 80% from an initial 70%.¹¹

⁷ "Carbon pricing: regulatory framework for the output-based pricing system" (January 31, 2018 announcement)

<https://www.canada.ca/en/services/environment/weather/climatechange/climate-action/pricing-carbon-pollution/output-based-pricing-system.html>

⁸ There are two types of CO₂ intensity emissions standards: the case in which they are stipulated by the government, and the case in which they are established by calculating the CO₂ intensity every year for each facility and multiplying it by a predetermined emissions reduction factor. Refer to sections 36 to 43, Schedule 1 of the previously cited materials (Note 3) for the CO₂ intensity emissions standards for each specific industry sector, business type, and product.

<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/page-11.html#h-1185036>

⁹ Refer to the previously cited materials (Note 8)

¹⁰ Refer to the following materials regarding the review process for taking into consideration industry sectors facing international competition.

Update on the output-based pricing system: technical backgrounder (July 27, 2018 announcement)

<https://www.canada.ca/en/services/environment/weather/climatechange/climate-action/pricing-carbon-pollution/output-based-pricing-system-technical-backgrounder.html>

¹¹ Refer to the previously cited materials (Note 11)

3.3. Availability of offset credits

In the above OPBS, a maximum of 75% of excess emissions are allowed to be used to compensate for excess emissions using the submission of offset credits. There are two kinds of offset credits usable for compensation: the surplus credits and the “recognized credits” which are credits issued under (i) the offset mechanism of the federal government or (ii) the recognized offset mechanisms of the provincial and territorial governments.

(i) The offset mechanism established by the federal government was officially announced in the federal government gazette on June 8, 2022. The Canadian Greenhouse Gas Offset Credit System Regulations (hereinafter referred to as the “Offset Credit System Regulations”) stipulate the scope covered by the regulations and the eligibility requirements for implementing entities of the projects and decide the credit issuance period, etc.

In parallel with preparation for the launch of the system in 2021, the preparation work for the method of calculating the amount of emissions reduction in the emissions reduction project (the offset protocol) was also carried out. In February 2023 the offset protocol on landfill methane recovery and destruction and GHG emissions reductions in refrigeration systems were approved as official ones. Moreover, currently, the protocols for improvement of forestry management, improvement of the carbon absorption of soil, etc., improvement of the feed system for livestock, direct air carbon capture and storage (DACCS), and the Enhanced Oil Recovery (EOR) method have been developed.

(ii) The offset mechanisms operated by the provincial and territorial governments can also be used as “recognized credits” if they meet standards set by the federal government. This covers offset credits derived from the amount of emissions reduction and removal measured using the protocol for calculating the amount of emissions reduction and removal (the specific method for calculating the amount of emissions reduction and removal) applied under an offset mechanism that has been reviewed from the Minister of Environment and Climate Change and the minister determined eligible for use of OPBS.

Currently, the protocols that have been reviewed by the Minister of Environment and Climate Change and have become “recognized credits” are the aerobic composting protocol, the aerobic landfill bioreactor protocol, the protocol for emission reductions from pneumatic devices, the protocol improving the method of feeding cattle to reduce methane emissions derived from their gaseous regurgitation, the protocol to reduce methane emissions derived from manure through the efficient feeding of cattle, etc. implemented in the offset mechanism of Alberta.

In this way, the OPBS allows the use of offset credits from the mechanism of the federal government and the “recognized credits” to compensate for excess emissions. However, according to the latest report announced by the Canadian federal government, the use of these two offset credits was not

reported in either 2019 or 2020.¹²

3.4. MRV of the emissions

The facilities covered by the regulations are required¹³ to report their emissions every year in accordance with the OBPS by June 1 of the following year. The OPBS has some provisions on MRV, quantification method, and allows the use of GHGRP that is established by the federal government of Canada as well as the WCI method that is used in the Western Climate Initiative (WCI), a climate change initiative in which California, the United States, and Quebec, Canada, participate. In addition, the OPBS allows the use IPCC of guidelines when the methods mentioned above don't cover industry sectors.

Facilities covered by the regulations must measure their emissions based on one of these methods, have the results verified by a third-party verification agency and then submit them to the federal government.

3.5. Relationship to other policies

The revenue from the carbon pricing system of Canada is returned to the general public or used in investments for climate change actions. The plan for strengthening the climate change policies for Canada was published in December 2020 (A Healthy Environment and a Healthy Economy), and reported that the charge levied by the OBPS would be invested in industries in the provinces and territories for the introduction of cleaner technologies and activities for emissions reduction. Two systems were established as frameworks for investment: the Decarbonization Incentive Program (DIP) which makes investments in industry and manufacturing and the Future Electricity Fund (FEF) which makes investments in the electricity sector. Under the OBPS, charges were levied as compensation from the companies covered by the regulations in 2019 (CA\$164 million) and 2020 (CA\$236 million), coming to a total of approximately CA\$400 million. Investments have been made in the industrial sectors of each province and territory through the Decarbonization Incentive Program (DIP) and the Future Electricity Fund (FEF) taking into account the status of the number of facilities covered by the regulations in each province and territory (including facilities participating voluntarily), and the amount usable for investment in each province and territory is published by the federal government of Canada.

¹² Refer to the previously cited materials (Note 5).

<https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/greenhouse-gas-annual-report-2021.html#toc23>

¹³ Refer to section 13 of the previously cited materials (Note 2).

<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/page-3.html#docCont>

Table 4: Usable Investment Amounts in the DIP and the FEF

Name of province	DIP		FEF	
	Amount of funds which can be invested (million)		Amount of funds which can be invested (million)	
	2019	2020	2019	2020
Manitoba	CA\$5.10	CA\$7.00	CA\$0.30	CA\$0.20
New Brunswick	CA\$2.70	CA\$3.10	CA\$5.90	CA\$14.20
Ontario	CA\$68.10	CA\$97.80	CA\$17.00	CA\$19.90
Saskatchewan	CA\$6.90	CA\$6.40	CA\$56.30	CA\$84.90

(Source) Prepared by The Institute of Energy Economics, Japan (IEEJ) based on the Greenhouse Gas Pollution Pricing Act: Annual report for 2021

4. Implications for GX ETS

Canada possesses abundant energy resources including both fossil fuels and renewable energy domestically, is not dependent on imports from overseas, and has a different political and economic background from Japan.

On the other hand, its ETS which was introduced in the form of the OBPS allows the issuance of surplus credits in the case that emissions fall below the set emissions cap, and this point is the part that is similar to the GX ETS. However, the GX ETS consists of voluntary target setting whereas the OBPS essentially consists of regulations based on CO₂ intensity, so we can conclude that it serves as a reference example for the second phase of the GX ETS in the fact that it uses standards based on intensity rather than the total amount of emissions and the fact that it has formulated a predetermined guidance.

Furthermore, the revenue from the levied charge came to a total amount of CA\$400 million (approximately 42 billion yen in Japanese yen (assuming CA\$1 equals 106 yen)) by 2020 and this has been utilized in investment for decarbonization in the industry sector. The GX ETS is different in that 20 trillion yen will be dispersed to technology development, etc. as prior investment and subsequently refunded using carbon pricing but similar in that the revenue from carbon pricing will be utilized in further emissions reduction.

<References and materials>

Government of Canada “A Healthy Environment and a Healthy Economy”

<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/healthy-environment-healthy-economy.html>

Government of Canada “Greenhouse Gas Pollution Pricing Act: Annual report for 2021”

<https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/greenhouse-gas-annual-report-2021.html>

Overview of the OPBS¹⁴

System commencement year	2019/1/1
Period of system	One year (calendar year)
Targets and objectives	Sets intensity targets for each sector covered by the regulations (when setting the target values, preferential measures for industries, etc. facing international competition are taken, and improvement target rates are set which get stricter in stages, from 95%, to 90%, to 80%).
Overview	This is a system applied to industry sectors (iron and steel, cement, chemicals, mining, chemical fertilizers, pulp) as a regression prevention measure of the federal government in the case that the provincial and territorial governments have taken inadequate or no carbon pricing initiatives. It sets intensity targets rather than regulations on the total amount.
Penal provisions	The amount in 2019, the year in which the regulations were commenced, was CA\$20 per ton. Since 2019 it has risen by CA\$10 every year and from 2023 onward it will rise by CA\$15 every year.
Unit	Facilities
Main requirements for eligibility	Facilities of industry sectors (iron and steel, cement, chemicals, mining, chemical fertilizers, pulp, power generation, etc.) in regions where the federal backstop has been applied, which are facilities with annual emissions of 50,000 tons or more.
Covered gases	CO ₂ , CH ₄ , N ₂ O, SF ₆ , NF ₃ , HFCs, PFCs
Coverage	Provinces and territories that have not satisfied the benchmarks stipulated by the federal government and provinces and territories that seek application of the OPBS themselves (refer to the main text regarding the provinces and territories in which the OPBS is applied).
Allocation method	The emissions for every year that are permitted for the facilities covered by the regulations are calculated based on the benchmark intensity emissions, and if they fall below the emissions of the facilities covered by the regulations, emissions credits are issued, and it is possible to sell them to other facilities covered by the regulations.
Burden mitigation and leakage countermeasures	The intensity benchmark (Output Based Standard, OBS) is basically 80% of the average value of each industry, but alleviation measures for industries facing international competition (when setting the target values, preferential measures for industries, etc.

¹⁴ Prepared based on the Output-Based Pricing System Regulations (SOR/2019-266). Refer to <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/index.html>.

	facing international competition are taken, and improvement target rates are set which get stricter in stages, from 95% to 90%).
Banking and borrowing	Banking is allowed for surplus credits.
Utilization of other credits	Use of the offset credits recognized by the federal government is possible
Countermeasures against rapid rises in the price/ quantitative measures	None
Price	Unclear
Trading volume	Unclear
Trading format and exchange	No information.

(Source) Prepared by The Institute of Energy Economics, Japan (IEEJ) based on various materials

Overview of the Offset Credit System Regulations¹⁵

Regulated items	<ul style="list-style-type: none"> ● Conditions for a registered project and conditions for registration cancellation ● Requirements for project proponents ● Issuance of credits ● Keeping and retaining records
Requirements for project registration	<p>The project must be a type of project provided for in a federal offset protocol that stipulates the method of calculating the amount of emissions reduction. In addition, it must satisfy the following conditions.</p> <ul style="list-style-type: none"> ✓ Requirements for business operators (The project proponent is an individual who resides in Canada or has a place of business in Canada, the project proponent has exclusive entitlement to claim the credits issued for the amount of emissions reduction generated by the project, the project proponent has the necessary authorizations to carry out the project activities, the project proponent has no criminal record) ✓ Requirements for a project (Prior to the commencement of the project, the baseline conditions of the protocol are satisfied, the activities undertaken as part of the project to prevent greenhouse gases from being emitted or to remove greenhouse gases from the atmosphere are set out in the applicable protocol, the emissions reductions that the project could generate would be additional, the project is not registered in any other offset credit mechanism or the credits are unissued credits, there is no protocol applied to a project of the same type in the offset mechanism of the provincial or territorial government which has been implemented in the province where the project is to be implemented, projects commenced before January 1, 2017, are not eligible)
Conditions for credit issuance	<ul style="list-style-type: none"> ● The proponent has registered the project. ● The proponent holds an offset credit mechanism account in the tracking system. ● The proponent implements the project in accordance with the protocol. ● The proponent generates emissions reductions that are real, additional, quantified, verified, unique and permanent. ● The proponent prepares a project report. ● The proponent submits to the Environment and Climate Change Minister the project report and a verification report. ● If applicable, the proponent submits a corrected project report and a monitoring report concerning the implementation of a reversal risk management plan.

¹⁵ Prepared based on section 3 (Regulated items), section 5 (Credit issuance period), section 7 (Conditions for credit issuance), and section 8 (Requirements for project registration) of the Canadian Greenhouse Gas Offset Credit System Regulations: SOR/2022-111. Information regarding the protocols was prepared based on the website of the Canadian Ministry of the Environment and Climate Change.

https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system/federal-greenhouse-gas-offset-system/protocols.html?utm_source=pocket_saves

Credit issuance period	<ul style="list-style-type: none">● Ten years to 30 years (30 years for a forestry project, 20 years for a sink project not related to forestry, 10 years for any other project)
Offset protocol (method of calculating the amount of emissions reduction)	<ul style="list-style-type: none">● The methane capture protocol and the protocol for the reduction of greenhouse gas emissions from refrigeration systems were announced in February 2023.● In addition, protocols for forestry conservation projects and projects for livestock feed management, DACCS, EOR, etc. are currently being considered.

(Source) Prepared by The Institute of Energy Economics, Japan (IEEJ) based on the Canadian Greenhouse Gas Offset Credit System Regulations

Standards of the “Recognized Credits”

Standards of the offset mechanism	Standards of the protocols
<ul style="list-style-type: none"> a Governance, b Project registration and credit issuance period renewal procedures, c Rules of the credit issuance period, d Credits issuance procedures, e Rules concerning ensuring additionality and concerning the response to leakages, etc. concerning projects related to removal, f Rules for the avoidance of double counts, g Rules to ensure transparency concerning the projects and credits, h Rules concerning third-party verification before issuance of the credits 	<ul style="list-style-type: none"> a The protocol must concern the GHG reduction or removal amount b The reduction or removal amount must not be covered by the regulations of other carbon pricing systems (systems implemented independently by provincial and territorial governments, etc.) c The calculation of the quantification of the reduction or removal amount must be carried out using a scientifically-established method <ul style="list-style-type: none"> i. The GHG emissions or removal amount of each GHG emissions source, sink, and storage must be calculated ii. Reversals when absorbed CO₂ leaks must be quantified <ul style="list-style-type: none"> ii.1 The risk of leakage must be evaluated iii. The reduction or removal amount must be quantified in comparison with the baseline scenario (the emissions or removal amount in the case that the project is not implemented) iv. Conservative assumptions and approaches must be used for the quantification c.1 The baseline scenario shall be based on the most recent usable data, all legal regulations, and common practices d The protocol must be based on the best practices regarding the following items <ul style="list-style-type: none"> i. Data gathering and management ii. Storing records iii. Monitoring of the project (including the status of permanence) iv. Quality assurance and quality management e The global warming potential provided for in the GGPPA must be used.

(Source) Prepared by The Institute of Energy Economics, Japan (IEEJ) from various materials

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