

THE CANADIAN GREENHOUSE GAS OFFSET CREDIT SYSTEM

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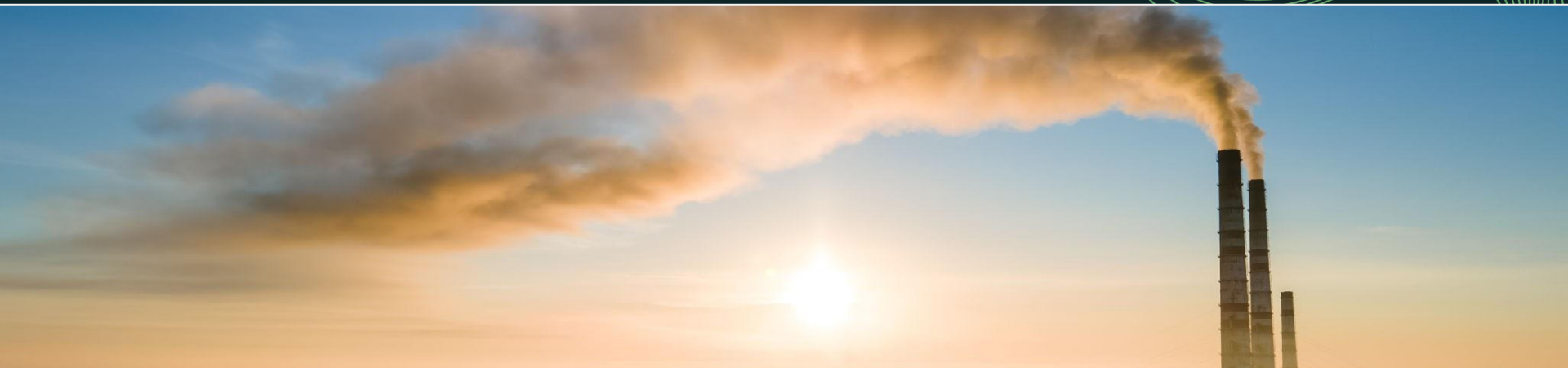


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01

CONTEXT AND SCOPE

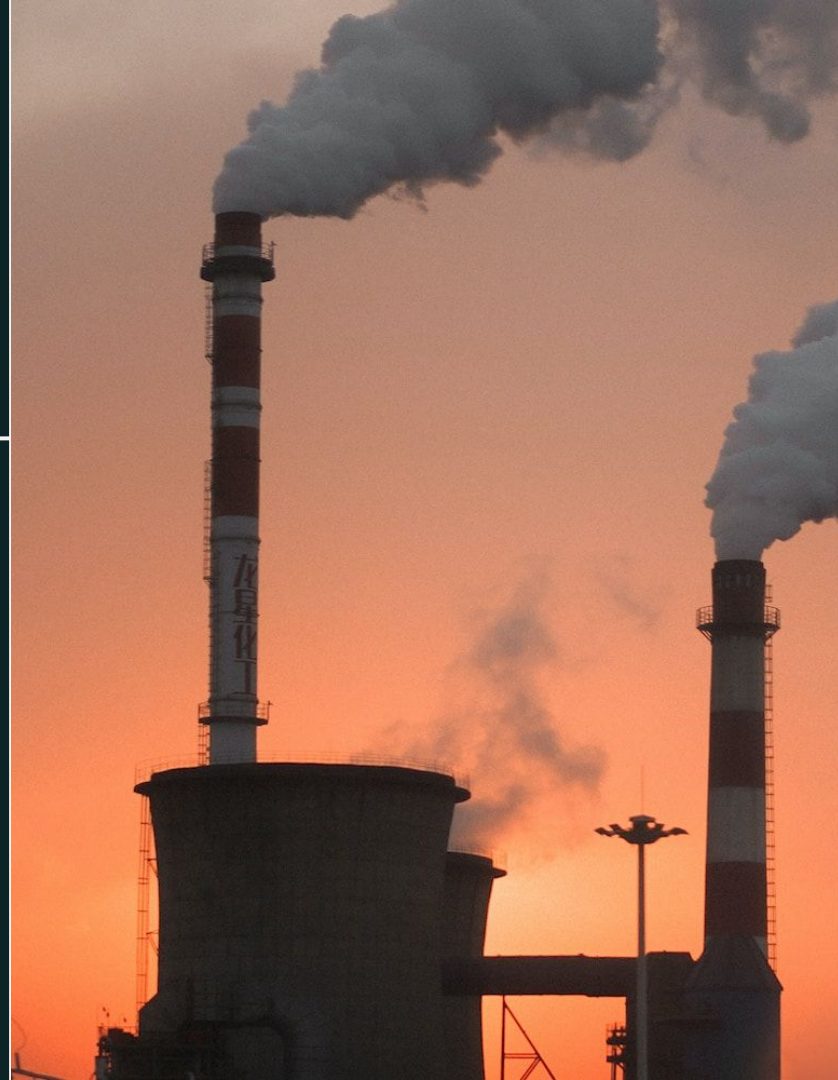
The Canadian Greenhouse Gas
Offset Credit System

What is the Greenhouse Gas Offset **Credit** System?

The Greenhouse Gas Offset Credit system is a voluntary* system that allows GHG abaters to receive credits that can be sold to regulated polluters

This is achieved through the Output-Based Pricing System (OBPS)

*Certain kinds of industry projects must be offset



What is the **Output-Based Pricing System (OBPS)**?

OBPS is a 'Cap and Trade' style regulatory system where Offset Credits can be purchased and traded to achieve their net zero targets.

This also applies to projects regulated by the Clean Electricity Regulations

This was originally created in tandem with the now removed Federal Fuel Charge

THE ESSENTIALS: CARBON MARKETS 101

WHAT ARE GREENHOUSE GASES?

Greenhouse gases (GHGs) are gases which, when released, build up in the atmosphere, absorbing and trapping heat from the sun. This impact has been termed the "greenhouse effect". The increase of these gases in the atmosphere causes global temperatures to rise and the global climate to change.

Common GHGs include:

- Carbon dioxide (CO₂)
- Sulphur hexafluoride (SF₆)
- Methane (CH₄)
- Hydrofluorocarbons (HFCs)
- Nitrous oxide (N₂O)
- Perfluorocarbons (PFCs)

Some GHGs have a greater effect on the climate than others. In order to compare them equally, GHGs can be converted into the standard unit of carbon dioxide equivalent (CO₂e) based on their global warming potential (GWP). When converted into CO₂e, different GHGs can be added together to give total GHG emissions or emission reductions.

WHAT ARE GHG EMISSIONS, REDUCTIONS AND REMOVALS?

GHG emissions occur when GHGs are released into the air through human activities, such as burning fossil fuels like gasoline and diesel, and through biological processes, like the decomposition of organic matter.

GHG emissions can be reduced through actions that reduce or eliminate GHG emitting activities or processes. GHGs can be removed from the atmosphere through natural or engineered capture and storage. For example, plants remove CO₂ from the atmosphere as they grow. Technological processes can also capture GHGs and convert them chemically or physically so they can be stored.



Global Warming Potential (GWP):

Methane has a GWP that is 25 times that of carbon dioxide, which means that 1 tonne of methane has the same effect on the climate as 25 tonnes of carbon dioxide, and 1 tonne of methane can be converted to 25 tonnes CO₂e.



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Canada

Why Cap and Trade?

According to ECCC, cap and trade systems prevent carbon leakages and can help generate green economic activities through clustering (ECCC, 2026)

- These financial incentives could lead to carbon abating activities to thrive in order to generate offset credits, enhancing our green economic potential!
- Allows for polluting industries to contribute to net zero goals when their industry's adaptation measures might still be developing





02

GHG

REDUCTIONS

And progress of the Offset Credit
System

What are the regulated projects?

Current Published Federal Offset Protocols Include

- Landfill Methane Recovery and Destruction
- Reducing Greenhouse Gas Emissions from Refrigeration Systems
- Improved Forest Management on Private Land
- Reducing Enteric Methane Emissions from Beef Cattle



Current Progress of the System

Each tonne of CO² abated through this system = 1 Credit

16 Projects and 12,700 CO²t

Current industries issued credits:

1. Refrigeration Systems
2. Landfill Methane

Canada's Greenhouse Gas Offset Credit System Public Registry



16
Offset Projects

12.7k
Issued Offset Credits

Number of offset credits issued to
project proponents to date under
Canada's GHG Offset Credit System

5.4k
Active Offset Credits

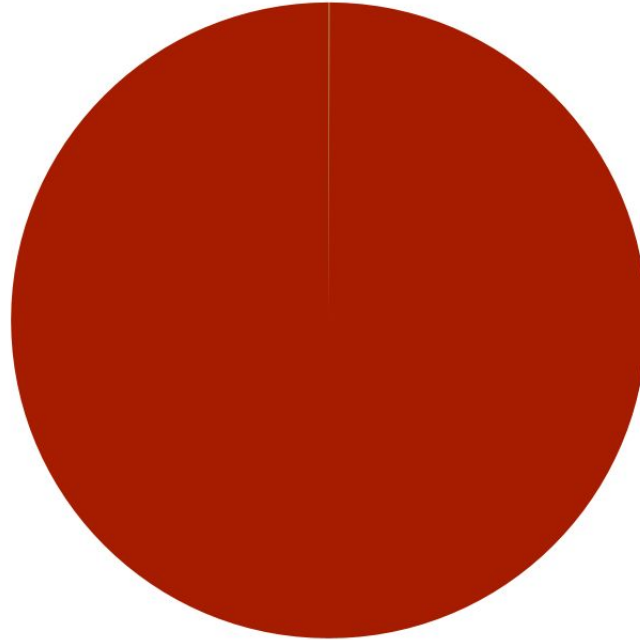
392
Environmental Integrity
Account Balance

Source: ECCC 2026

Who Can Guess What This Graph Specifically Represents?

Remember: Each
tonne of CO²
abated through
this system = 1
Credit!

(It is not the flag of Japan)



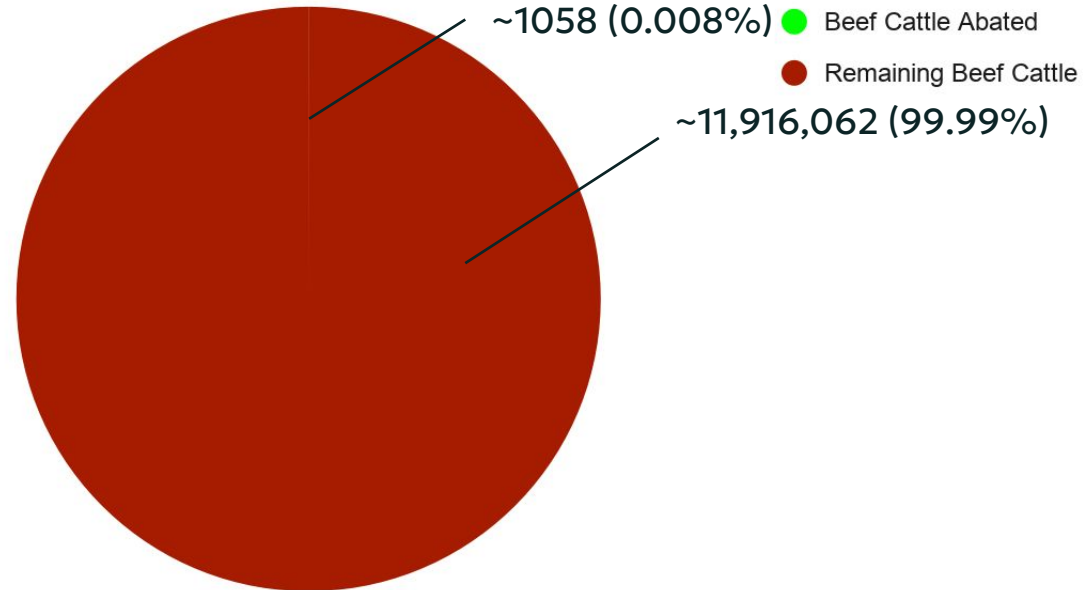
Current Progress of the System Through Cows!

The estimated CO₂ associated with the lifecycle of raising a beef-cattle is ~12tCO₂e (Alemu et. Al, 2017)

12700 tCO₂ / 12tCO₂e
= ~1058 equivalent cows abated with the Offset Credit System

Total beef cattle (AAFC, 2026)

Percentage of Equivalent Total CO₂ Abated Through Offset Credits



03

COSTS & BENEFITS

COSTS & DISTRIBUTIONS

GOVERNMENT

Administrative:

- Creating design and regulations
- Issuing credits
- Maintaining registry
- Ensuring compliance

Estimated \$9.6 million.

PROPONENT

Initial Project Generation & Ongoing Efforts:

- Implementing project
- Monitoring, reporting and verification
- Administrative and registration

Voluntary and refundable through credit sale

INDUSTRY

Regulated Emission Limit:

- Charges to compliance
- Buying offset or surplus credits

Effective and flexible, but can be shifted onto consumers through goods & service prices



Credit sale can recover these costs.



BENEFITS & DRAWBACKS

BENEFITS

- Cost-effective & flexible for firm buying credits
- Increased participation and market competition
- Mitigates greenhouse gases across sectors

Challenges can be
addressed through our
recommendations

DRAWBACKS

- Additionality → “fake” reductions
- Limited structural change from industries
- Non-permanent solutions, hard to measure, uncertainty around credit prices



04

RECOMMENDATIONS

Addressing key challenges &
strengthening the policy

Key Challenges

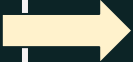
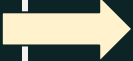
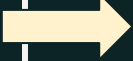
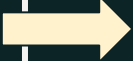
- Risk of low-quality or non-additional credits
- Measurement and verification uncertainty
- Over-reliance on offset by industry
- Limited transparency and public access to data

Recommendations for Improvement

- Strengthen MRV (audits, oversight)
- Improve additionality criteria (clear baselines)
- Limit offset use (compliance caps)
- Enhance transparency (public database)
- Prioritize high-integrity projects



How These Changes Can be Implemented...

Recommendation	Implementation
Strengthen MRV	 Accreditation system for verifiers
Improve Additionality criteria	 Sector-specific baselines
Limit offset use	 Phased cap on offset use
Enhance transparency	 Expanded public reporting tools
Prioritize high-integrity projects	 Targeted protocol development

Conclusion

- Offset system = flexible, cost-effective tool
- Current impact is limited (low uptake, key challenges)
- Effectiveness depends on environmental integrity
- Key improvements needed:
 - Stronger MRV & additionality
 - Limits on offset use
 - Greater transparency



Must complement – not replace – direct emissions reductions

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