

Carbon Contracts: What Makes A Difference

What Canadian industry needs to know about the federal government's approach to carbon contracts for difference.

About Clean Prosperity

Clean Prosperity is a Canadian climate policy organization.

We advocate for smart Canadian climate policy that uses market-based solutions to reduce greenhouse gas emissions, foster inclusive economic growth and competitiveness, and catalyze global climate action.



Speakers

Etienne Rainville

Director of Federal Government Relations

erainville@cleanprosperity.ca

Brendan Frank

Director of Policy & Strategy

bfrank@cleanprosperity.ca

Emma Dizon

Program Manager for Western Canada

edizon@cleanprosperity.ca



Terminology

Contracts for Difference (CfDs): A contract where the government and industry set a strike price based on a commodity (e.g. wholesale electricity). The government agrees to backstop the floor price for a commodity in order to encourage investment and derisk it.

Carbon Contracts for Difference (CCfDs): Similar to a CfD, but where carbon is the focus of the contract. This can take several different forms, such as contracts around the federal headline price on CO₂ or the credits traded in provincial markets.



Background

Emissions Reduction Plan (ERP):

“To enhance long-term certainty, the 2030 Emissions Reduction Plan commits the Government of Canada to exploring measures that help guarantee the price of pollution. This includes, investment approaches, like **carbon contracts for differences...**”

Budget 2023:

“Budget 2023 announces that the government will consult on the development of **a broad-based approach to carbon contracts for difference** that aims to make carbon pricing even more predictable.”

“The deployment of financial instruments through **the Canada Growth Fund**, such as **contracts for difference**, to absorb certain risks and encourage private sector investment...”

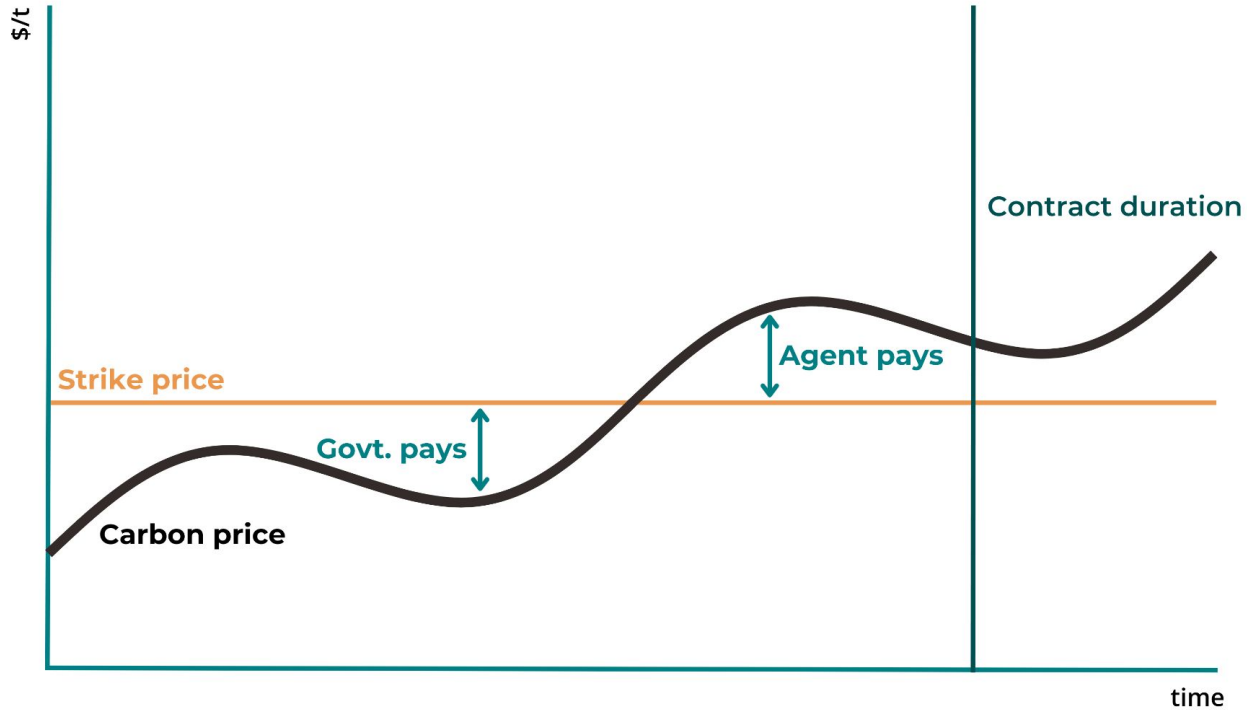


CCfDs: How do they work?

- A CCfD would be signed between the federal government and an emitter or the proponent of a low-carbon project.
- The contract establishes a strike price, which is the level to which the federal government agrees to backstop the carbon pricing schedule, or carbon credit prices.
- If the carbon price or carbon credit price fails to meet the strike price of the contract, the firm gets a payout based on the difference between the actual and anticipated price in any year.
- If the carbon price or carbon credit price is above the strike price of the contract, the firm pays a percentage (to be established) of the excess amount back to the government.
- This provides industry and investors with certainty about the long-term revenue associated with Canadian carbon markets.



CCfDs Visualized



CCfDs on Two Tracks

Canada Growth Fund (Track 1):

The Canada Growth Fund (CGF) has bespoke CfDs and CCfDs as one tool in their tool box for making \$15 billion in strategic investments. These contracts would come through one-off deals negotiated with emitters and project proponents, likely as part of a more expansive financing package.

Broad-Based CCfDs (Track 2):

Budget 2023 promised a consultation on broad-based CCfDs. Our emphasis in the short term has been for the federal government to move ahead with this consultation, to be able to take next steps on CCfDs in the upcoming FES/Budget 2024.



Four Principles for Broad-Based CCfDs

1 Go as broad as possible

2 The sooner the better

3 Include CCfDs around credit price value

4 Use clear eligibility criteria



CCfDs Address 3 Distinct Problems



Problem 1: Political Uncertainty

- Also known as “stroke of pen” risk.
- Future governments have the ability to alter the federal carbon price, change what it considers “equivalent” among provinces, or remove the program entirely.
- Political uncertainty can affect everything from expectations about future compliance obligations to risk-adjusted returns for new decarbonization projects.



Problem 2: Policy Uncertainty

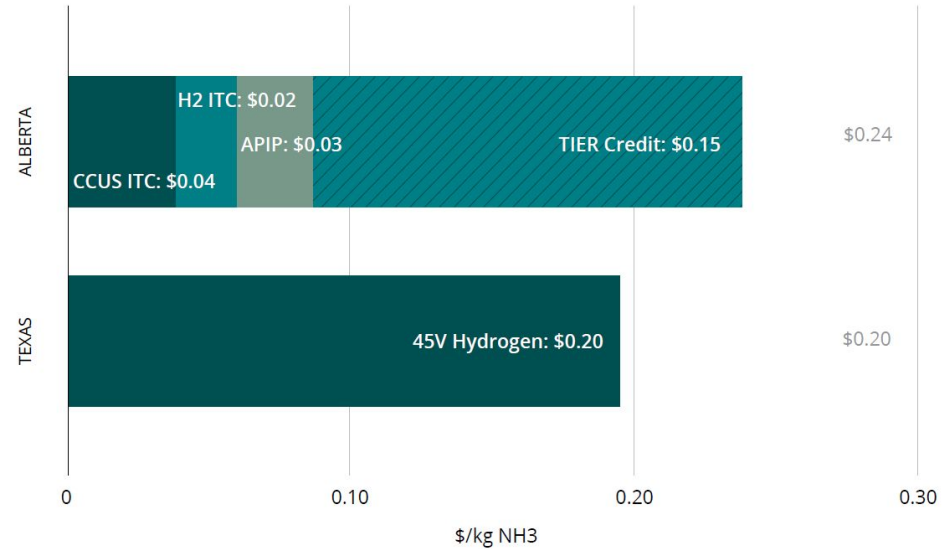
- Also known as “market risk”.
- Carbon markets require regular upkeep to ensure they remain stable and predictable while fulfilling policy goals.
- Carbon markets can struggle with credit oversupply as they mature.
- Accurately evaluating pending investment decisions requires greater certainty around the long-term price of carbon.



Problem 3: Bankability Gap

- The *Inflation Reduction Act* has put Canada at a structural disadvantage with the United States for low-carbon investment.
- CCfDs can turn credits generated in Canadian carbon markets into “bankable” sources of revenue for low-carbon projects (blue ammonia example on the right).

FIGURE 1: Average annual gross revenue from policy sources for hypothetical 1 million tonne/year blue ammonia project, 2025-2034 (\$ per kg of ammonia)



CCfD Design Considerations



CCfD Key Design Criteria



1 Program size

How many megatonnes should be insured by CCfDs?
When do the contracts expire?



2 Setting the strike price

How should the strike price be set, and how fast does it rise over the life of the contract?



3 Settlement

How regularly should governments and counterparties settle the “difference”?



4 Cash or credit?

In the event of a payout, should difference be settled in cash, or should government buy and sell credits?



5 Addressing moral hazard

How to mitigate the split incentives within federal and provincial governments?

1 The size of a CCfD program

As selective as possible: A bespoke program where fewer projects receive a CCfD; limited impact on investor certainty but minimized fiscal cost.

As broad as possible: Any facility can opt in to a CCfD, which significantly reduces investor uncertainty but at higher fiscal cost.

As efficient as possible: Issue CCfDs via reverse auction, where credit holders bid against one another and the lower bids win the CCfDs.

Our recommendation: Go as broad as possible.



2 Setting the strike price in the contract

Option 1: Headline Price

Strike price of \$65/tonne in 2023, rising by \$15/yr until \$170/tonne by 2030.

Pros: Simpler implementation as the federal government controls all the levers.

Cons: Provides less revenue certainty, since credits could be trading at a steep discount to the headline price.

Option 2: Credit Price

A guaranteed floor price for carbon credits at a discount to the headline price.

Pros: Provides more certainty to business and investors around anticipated project revenue.

Cons: Requires stronger guardrails against credit oversupply, or a federal government willing to apply its backstop to any province that is not enforcing stringency.

Our recommendation: Set the strike price based on credit prices, not the headline price.



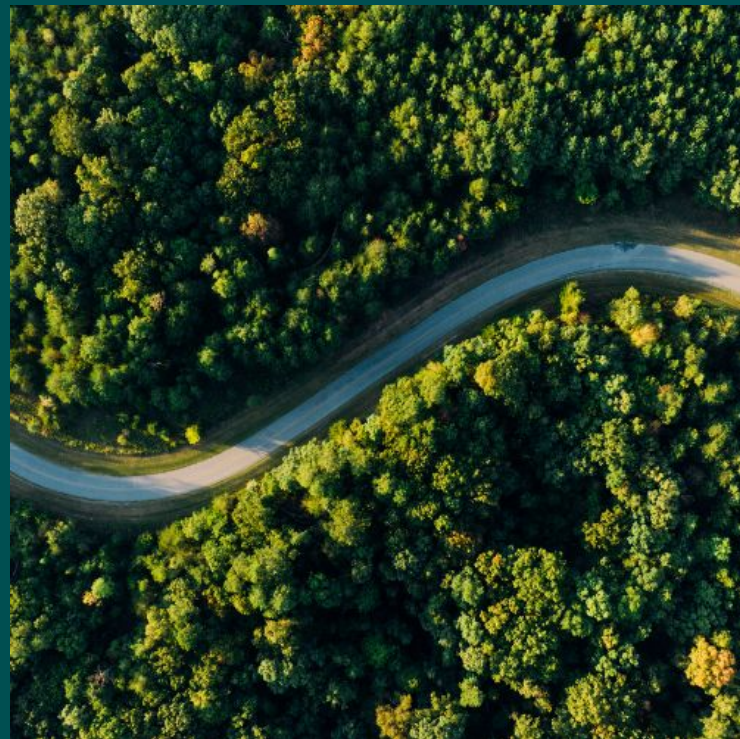
3 Settlement of the contracts

Key challenge: How often to settle the contracts?

“High-touch” systems that settle more regularly reduce business risk and can improve cash flow, but setup is more complicated.

Systems that settle less regularly will require fewer overall transactions and infrastructure, but reduce certainty for business.

Our recommendation: Settle the contracts at least twice per year.



Should the government act as a buyer?

Top-up payment model

- Government pays the counterparty the difference if credit prices are below the strike price.
- Counterparty pays the government the difference if credit prices are above the strike price.

Direct purchase model

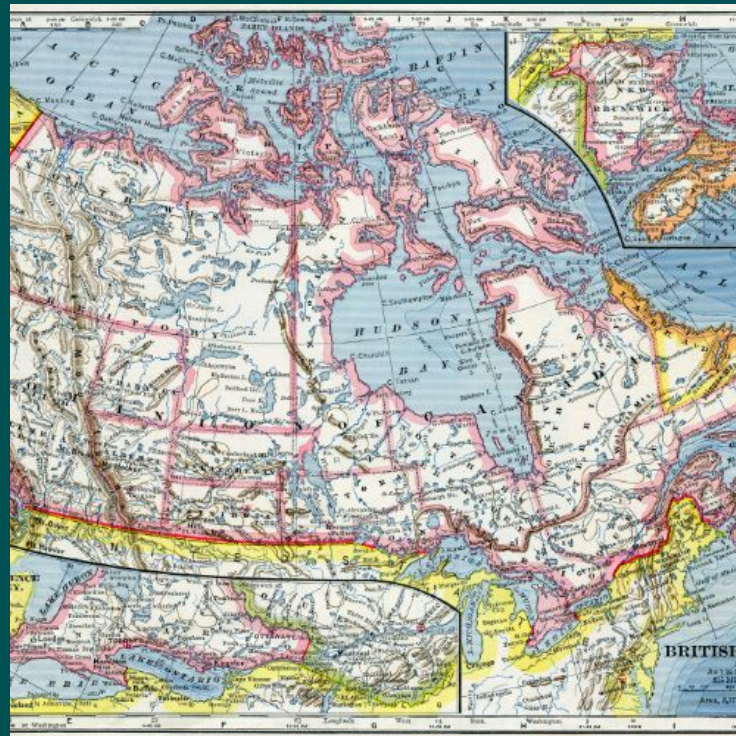
- Government has the option to buy credits at the strike price.
- Counterparty has the option to sell credits to the government at the strike price.

5 Addressing moral hazard

Key challenge: How to address challenge of split incentives between federal and provincial governments?

The federal government insuring the value of credits in provincial carbon markets could create perverse incentives for provinces to relax or unwind their carbon markets.

Our recommendation: Federal and provincial governments should both provide fiscal collateral to backstop CCfDs in the event of a payout to counterparties.



Where Do Things Stand?



Federal Government

- The next decision for the federal government is what shape the promised consultation takes.
- We have communicated the urgency in this policy both in terms of Canada's response to the IRA but also in the remaining mandate of this government.
- With FES rapidly approaching, it seems Budget 2024 is likely the key milestone for significant advancement of CCfDs.
 - Between now and then the CGF might have some initial deals inked.

Provincial Governments

- Readiness for a broad-based CCfD program varies considerably province-to-province due to the lack of uniformity in industrial emissions systems and different levels of maturity.
 - Provinces and territories under the federal backstop (e.g. Manitoba, PEI, Yukon, Nunavut) are more straightforward.
 - British Columbia is in the midst of transitioning to an OBPS in 2024.
 - Quebec's linkage to California through the WCI poses unique challenges.
 - The TIER system in Alberta is the the largest and most mature system.
- Generally the policy conversation around CCfDs has targeted the federal government, but with concerns around moral hazard, provinces may need to be brought on side.

Questions?

