

CCUS Investment Tax Credit - PRIMER (Spring 2023)

An aggregation of information to date on the Canadian Investment Tax Credit for carbon capture, utilization and storage



INTRODUCTION

Carbon capture, utilization and storage (CCS/CCUS) technology will be an essential part of Canada's ambitions to reduce CO₂ emissions 40 to 45 per cent below 2005 levels by 2030 and to achieve net-zero greenhouse gas emissions by 2050. It is important that there are value streams and business cases to support successful deployment of megatonne-scale CCS/CCUS projects on the aggressive scale and timeline required to meet international climate commitments.

The Knowledge Centre has prepared this primer to aid industry and other organizations in navigating the CCUS investment tax credit (CCUS-ITC). Information in this document includes an aggregated account of federal documentation provided by Finance Canada. This document provides ease of reference but should not be used to take the place of legislated requirements.

A full package of legislative proposals, including key details for the implementation of the CCUS-ITC will be released for consultation in the coming months. Once legislated, the tax credit will be retroactively available to businesses that have incurred eligible CCUS expenses, starting in 2022.

Canada's Plan for a Clean Economy will be underpinned by Canada's pollution pricing systems and large-emitter credit markets, which Budget 2023 proposes to reinforce with other tools, such as contracts for difference, and is discussed briefly in this document.

Other mechanisms that federal and provincial governments have implemented or proposed to drive CCUS development are not covered in this primer. More information on stacking and additional benefits for deploying CCUS across industries and jurisdictions requires further analysis.



EVOLUTION OF CCUS IN THE CANADIAN BUDGET

April 19 2021	Canada committed to having an Investment Tax Credit (ITC) for carbon, capture, use and storage (CCS/CCUS) stemming from its 2021 Budget . It was the first Canadian budget to specifically mention CCUS and realize its necessity in achieving Canada’s climate goals. A 90-day consultation period followed.
December 2 2021	Stakeholders were invited to provide comments on the government’s proposed approach from June 7 to September 7, 2021, and consultations concluded on December 2, 2021.
January 1 2022	CCUS projects that have outlaid eligible expenses starting January 1, 2022, are eligible for the ITC. Even though this date has been set, the ITC still has outstanding guidance for industry. Therefore, it is assumed that such guidance, when released, would consider a retroactive process for any projects that outlaid eligible expenses.
March 29 2022	Canada released its 2030 Emission Reductions Plan and noted that the increased use of CCUS is a part of every credible path to achieving net zero emissions by 2050. The government stated it will also continue efforts to increase coordination to eliminate regulatory barriers and facilitate CCUS deployment.
April 7 2022	Budget 2022 proposed a refundable ITC for businesses that incur eligible CCUS expenses. The government committed to engage with relevant provinces with the expectation of further strengthened financial incentives. There was a commitment to review ITC rates before 2030 to ensure that the halving of the ITC support from 2031 to 2040 aligns with the government’s environmental objectives.
August 9 2022	Additional Design Features for the ITC were published regarding design features with respect to the recovery of the CCUS Tax Credit, climate risk disclosure, and knowledge sharing. Consultation with key stakeholders was initiated.
September 30 2022	Public comment period concluded September 30, 2022, on the draft legislative proposals.
November 3 2022	Canada’s Fall Economic Statement introduced more certainty for CCUS and other clean tech investors using the Canada Growth Fund with the ability to provide carbon contracts for difference. Carbon contracts for difference create a more predictable environment and reduce risk, supporting long-term investments.
January 6 2023	Stakeholders were invited to provide comments on the government’s proposed Clean Hydrogen Investment Tax Credit, which included CCUS. Consultations ran from December 1, 2022, to January 6, 2023.
March 28 2023	This spring’s Budget 2023 reaffirmed its support for CCUS. Four other ITCs were characterized as part of a suite of tax measures for a clean economy. These ITCs will be accompanied by new labour provisions – for CCUS this will come into effect October 1, 2023. A full package of legislative proposals for CCUS will be released for consultation “in the coming months.” The Budget also commits to consult on the development of carbon contracts for difference for a broad-base.
April 11 2023	Stakeholder feedback sought from Natural Resources Canada (NRCan) on draft knowledge sharing requirements for the CCUS-ITC. Comments due by May 31, 2023.

Statement on CCUS from the 2021 Budget

“Canadian innovators and engineers have developed some of the leading global technologies for CCUS technologies that are in demand as more countries take action to fight climate change. The government intends to take significant action to support and accelerate the adoption of these technologies. By providing incentives to adopt CCUS technologies, the proposed measure will be an important element in Canada’s plan to achieve net-zero emissions by 2050. This important new element of Canada’s tax system is also intended to accelerate the growth of new businesses and jobs related to carbon capture.

- *Budget 2021 proposes to introduce an investment tax credit for capital invested in CCUS projects with the goal of reducing emissions by at least 15 megatonnes of CO₂ annually. This measure will come into effect in 2022.”*



WHAT QUALIFIES FOR A CREDIT?

The tax credit is available for the capital associated with building a CCUS project. But what exactly is “eligible”?

Eligibility Capital

Eligible expenditures

The **cost of purchasing and installing** “eligible equipment” used in an “eligible CCUS project”, provided there is an “eligible use” of the CO₂.

Eligible CCUS projects

- ✓ A **new project that captures CO₂** that would otherwise be released into the atmosphere, or captures CO₂ from the ambient air;
- ✓ **prepares** the captured CO₂ for compression;
- ✓ **compresses and transports** the captured CO₂; and
- ✓ **stores or uses** the captured CO₂.

Existing projects like Boundary Dam CCS facility or Quest, for example, are not eligible for the ITC.

Eligible equipment

Eligible equipment is covered under Capital Cost Allowance Classes (see page 6):

- ✓ **capture equipment**: equipment that solely captures CO₂, including required processing and compression equipment;
- ✓ **transportation equipment**: pipelines or dedicated vehicles for transporting CO₂;
- ✓ **storage equipment**: injection and storage equipment; and
- ✓ **use equipment**: equipment required for using CO₂ in an eligible use.

The Capital Cost Allowance Classes also include the cost of:

- ✓ **converting existing** equipment for use in a CCUS project or **refurbishing** eligible equipment;
- ✓ equipment for **monitoring and tracking** CO₂; and
- ✓ **buildings or other structures** that solely support a CCUS project.

Eligible jurisdictions

A project must take place in a province determined to have sufficient regulations to ensure CO₂ is stored permanently. This includes Alberta and Saskatchewan.

CO₂ must be captured in Canada but can be stored or used outside Canada.

Eligible timeframe

Projects **starting on January 1, 2022**, to December 31, 2040, are eligible at different levels (see page 5).

Projects are expected to **operate for 20 years**. If a project doesn’t operate that long once up and running, there is a recovery mechanism that will take effect.

The creation of a *CCUS-ITC Technical Guidance Document* is forthcoming under the responsibility of NRCan. Its scope is uncertain, but it is anticipated that this document, or other guidance, will provide a more accurate value of the CCUS-ITC by clarifying:

- Eligible costs
- “Stackability” of various credits
- Climate risk reporting
- Knowledge sharing
- Refurbishment
- Labour requirements
- Cost allowance categories
- Interaction with other ITCs

Additions to Eligibility in Budget 2023



Further eligible equipment

- ✓ **Dual use power or heat** production equipment (if over 50% of energy is to support the CCUS process. If the equipment produces both heat and power, only one of the heat or power energy balance needs to meet this requirement).



Validating CO₂ storage in concrete

- ✓ Validation would be confirmed by receipt of a third-party validation statement using applicable ISO standards.



Refurbishment Considerations

- ✓ Refurbishment tax crediting will allow CCS operators to improve efficiency and maintain the operations of their facilities (see page 6).



Expanded jurisdictional reach

- ✓ The ITC will now be available to projects that would store CO₂ using dedicated geological storage in **British Columbia**.

See [Budget 2023 Tax Measures: Supplementary Information](#)



EXPENSES NOT COVERED UNDER THE ITC

There are also expenses for projects in and around the CCUS project realm that are specifically noted as ineligible.

Ineligible Expense Considerations

Non-CCUS equipment

Budget 2022's [Tax Measures: Supplementary Information](#) stated that equipment that is required for hydrogen production, natural gas processing, acid gas injection or that does not support CCUS would be ineligible.

Engineering studies and operating expenses

Feasibility studies, front-end engineering design studies, and operating expenses are also ineligible. Other large projects have sometimes claimed FEED as a part of capital expenses; the CCUS-ITC has clearly excluded such engineering and design considerations.

Non-taxable organizations

Since the CCUS-ITC is a tax credit, non-taxable organizations (i.e., Crown Corporations) are not eligible for the credit. However, Budget 2023 does consider these non-taxable organizations to be eligible for clean electricity tax credits (likely through a parallel program.)

Compliance with fossil fuel power generation regulations

The 2022 [Tax Measures: Supplementary Information](#) document states that CCUS projects would not be eligible "where emissions reductions are necessary in order to achieve compliance with the *Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations* and the *Regulations Limiting Carbon Dioxide Emissions from Natural Gas-fired Generation of Electricity*".

Enhanced oil recovery

Enhanced oil recovery projects are ineligible. If the capture entity sequesters CO₂ in both eligible and ineligible uses (i.e. EOR), the tax credit will be reduced based on the proportion of CO₂ directed to ineligible uses. (Refer to the Eligible Use Factor information on the next page.)

Other uses of CO₂

[Budget 2022](#) considers that other CO₂ uses (besides the allowable geological storage and CO₂ sequestration in cement) could be made eligible in the future, if permanence of storage can be demonstrated and no incremental CO₂ emissions result from the use of the product that is produced.

Other Capital Cost Allowance classes

Exploration and development expenses associated with storing CO₂ would also not be eligible for the ITC. They were expected to be new capital cost allowance classes, but there is uncertainty on when this will occur.

Certain jurisdictions

To date, projects located in Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia, PEI, Newfoundland & Labrador, Yukon, Nunavut, the Northwest Territories are not eligible. This could change on a case-by-case basis if provincial regulations are further developed.

Additional Considerations

Choosing which ITC to use

→ Budget 2023 introduced several other ITCs for clean technology including for Clean Electricity, Clean Hydrogen, Clean Technology Adoption, and Clean Technology Manufacturing. Only one of the hydrogen, clean energy, and CCUS-ITCs are claimable for property that is eligible for more than one of the credits.

Funding at the front end

→ Federally, funding opportunities for CCUS to cover the costs of the initial studies not covered by the CCUS-ITC exist or have occurred. NRCAN has an [Energy Innovation Program](#) that offers research, development, and demonstration funding for CCUS, and provided \$50M through its [CCUS FEED Studies](#) funding program. The CCUS FEEDs call received 96 submissions, amounting to an overall request of \$480 million (9.6 times the \$50M available). Innovation, Science and Economic Development Canada (ISED) has a [Strategic Innovation Fund](#) (SIF) that may also aid in funding complex studies that help get projects to a final investment decision.

Navigating Regulations

→ The coal and natural gas regulations list emission intensity limits related to electricity generation. Facilities must meet these limits to be eligible for CCUS ITCs, which vary based on the amount of power produced, fuel used, initial emissions, and provincial equivalency agreements. The Government of Canada is currently developing [new Clean Electricity Regulations](#) which would employ measures to ensure a net zero electricity sector, including CCS considerations. Under the [Clean Fuel Regulations](#), facilities can create compliance credits using projects like CCUS that reduce the emissions intensity of fuels consumed domestically. This won't apply to most upstream oil production because it is exported, or things like cement.

There are many layers of regulations or incentives that affect or benefit some sectors or may not even apply to other sectors. As such, it can be difficult to navigate the sticks and carrots that influence CCUS project deployment. It is certainly not as simple as saying the CCUS-ITC is "enough" to incent CCUS deployment for any project that wishes to proceed. This complicates CCUS policy and creates the imperative for all sectors to understand how policy impacts specific projects – even outside their own sector – to know where the important levers and gaps may exist. Additionally, understanding how different provincial approaches work together with federal CCUS and industry emissions strategies is critical for project proponents.

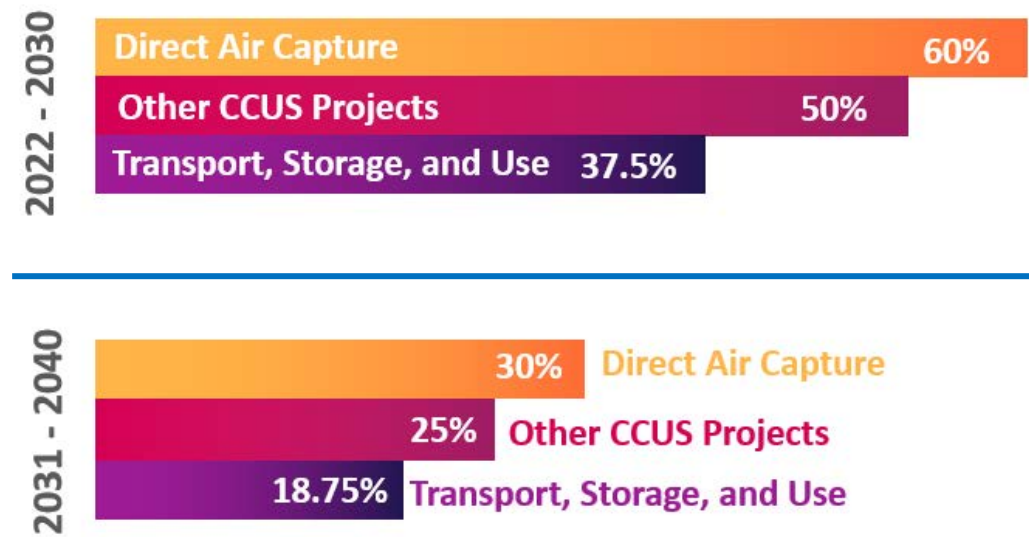


HOW MUCH IS THE CREDIT WORTH?

Eligible expenses for CCUS tax credits are refundable in order to incent the large capital investment.

Value of the Credit

The CCUS-ITC credit is for 50% of the project value if capital is spent on eligible equipment from 2022 through 2030 but is higher for Direct Air Capture and lower for transport, use and storage expenditures. To encourage the industry to move quickly to lower emissions, the CCUS ITC is reduced by 50% for the period from 2031 through 2040.



The Investment Tax Credit is refundable. Any refunds are forwarded following annual filing. There is no transferability accounted for as seen in the 45Q CCUS production tax credit in the United States.

Validation & Verification

Based on project plans, if over its lifetime a project is expected to have eligible expenses of \$100 million or greater it would need to undergo an initial project tax assessment. And, prior to claiming the ITC, eligible expenses would need to be verified by Natural Resources Canada.

Claw Back

Recovery Mechanism

Every five years, for the first 20 years of operation, there will be an assessment conducted on whether the CO₂ is being used or stored in an eligible way.

This means, for instance, if a project planned to sequester CO₂ in a deep saline formation, then later sent CO₂ for enhanced oil recovery, this ineligible use would result in the ITC having to be paid back to the government.

Eligible Use Factor

ITC amounts are calculated by multiplying a factor for the **type of equipment** (ie. capture, transport, etc.) **by a ratio of CO₂** expected to be stored via eligible uses in the first 20 years of the project.

5% change in eligible use factor: If CO₂ is no longer being used in an eligible way, a new project plan must be submitted, and the ITC can be recaptured to represent the actual CO₂ captured and used in an eligible way. (The variance in reduction is in excess of 5% change in the reduction of CO₂ captured being used in an eligible way in a five-year period).

10% change in eligible use factor: If a project does not maintain an eligible use ratio of at least 10% in each year during the five-year assessment period, all investment tax credits related to that five-year period and all other remaining five-year periods will be recovered. Any recovery amount required for a five-year assessment period will need to be repaid equally over the following five years.

Extraordinary Circumstances

If something happens, like the breakdown of transport equipment for example, that hampers the ability to store CO₂ in an eligible way, those periods of exception would be excluded from a five-year assessment period (at the discretion of the Minister of NRCan)

Budget 2022 estimated the CCUS tax credit to cost \$2.6B over 5 years starting in 2022, with an annual cost of about \$1.5B 2026/27 to 2030, which likely is attributable to that capital outlay approximated by potential projects along their development timeline.

Budget 2023 expanded the estimated amount by \$516 million over 5 years, beginning in 2023/24.



CAPITAL COST ALLOWANCES

New classes have been created for CCUS tax considerations with differing declining rates

Capital Cost Allowances

Class 57 (8% declining balance CCA rate) includes:

- Property used solely for capturing CO₂ that would otherwise be released into the atmosphere or is captured from ambient air, and that is not required for hydrogen production, natural gas processing, or acid gas injection;
- Equipment used solely for the transportation of captured carbon;
- Equipment used solely for the storage of captured carbon in a geological formation;
- Monitoring and control equipment used solely for equipment in paragraphs (a) to (c); and
- Building or structure of which 90% or more is used for the installation or operation of equipment in paragraphs (a) to (d).

Class 58 (20% declining balance CCA rate) includes:

- Equipment to be used solely for using CO₂ in industrial production;
- Monitoring and control equipment used solely for equipment in paragraph a); and
- A building or structure of which 90% or more is used for the installation or operation of equipment in a) to b).

These classes would be eligible for enhanced first-year depreciation under the **Accelerated Investment Incentive**, which:

- Applies the CCA rate to a 1.5 times the net addition for that class that year; and
- Suspends the existing half-year rule.

Budget 2022 announced that two new CCAs would be developed to support exploration and development expenses associated with storing CO₂.

- The two classes would be depreciable at rates of 100% and 30%, respectively.
- These CCA classes have yet to be defined or expanded upon.

Added Costs Considerations in Budget 2023

The Budget 2022 [Supplementary Tax Measures](#) indicated that the CCUS Capital Cost Allowance classes would also include the cost of converting existing equipment for use in a CCUS project or refurbishing eligible equipment.

Refurbishment ITCs

[Budget 2023](#) expanded the CCUS-ITC to apply to eligible refurbishment costs that are incurred after a project commences operation.

- ✓ Refurbishment ITCs are only considered for the first 20 years of the project.
- ✓ Up to a maximum of 10% of the total pre-operation costs eligible for the CCUS-ITC.
- ✓ Refurbishment ITCs will be determined in a similar way as the CCUS-ITC.
- ✓ Recovery would be considered in the same manner as the CCUS-ITC for construction costs, with timeframe adjustments.

More clarity on the impacts and eligibility of Refurbishment ITCs is required. The inclusion of the Refurbishment ITCs represents a reduction of risk to CCUS investments.



REPORTS AND OTHER CONSIDERATIONS

There are certain requirements associated with the CCUS-ITC. Failing to meet them can result in penalties.

Knowledge Sharing

Projects with cumulative **eligible expenses of \$250 million or greater based on the project plan** are required to contribute to public knowledge sharing in Canada.

A knowledge sharing report would be required following the commissioning of the facility and for the following five years. Details of the content **requirements of the reports are being developed** and will be provided by NRCan in a *CCUS-ITC Technical Guidance Document*.

A **penalty of \$2 million** will apply for each required knowledge sharing report that is not produced.

There are two reports required :

- An annual **operations knowledge sharing report**; and
- A **construction and completion knowledge sharing report**.

NRCan will publish the reports on a Government of Canada website as soon as practicable after it has been submitted.

Beyond Knowledge Sharing Reports

With public dollars being used to support these projects, public knowledge sharing should occur. Large dollars from government will support CCS projects in the near term, and it should be recognized that knowledge sharing should not be a “one and done” event.

A requirement to share a project completion report and annual operating updates is a good first step, however, it proves difficult in navigating technically complex CCS projects. Without the provisions of detailed, customized technical explanations, and ongoing curation and promotion of key lessons across projects and industries, the full value of shared CCS learnings will not be realized.

Drawing upon the lessons, or mistakes, from projects should continue across all industries to ensure that the next projects will seek less government support because of the achievement of cost reductions through knowledge sharing.

Climate Risk Disclosure

Climate Risk Disclosure reports are required from any corporation (unless exempt) that has deducted a CCUS-ITC, for **each of the 20 years** of operation, and if there are **eligible expenditures of \$20M or more**. Climate Risk disclosure reports are made public for 3 years.

Requirements for climate risk reporting include:

- Governance concerning climate risks;
- How climate-related risks impact the business’s strategy and financial planning;
- Processes used to analyze climate risks;
- Metrics used in assessing climate risk; and
- How the corporation’s governance, strategies, policies, and practices contribute to achieving Canada’s commitments under the Paris Agreement made on December 12, 2015 and 2050 net-zero emissions goals.

Penalties for failure to provide the climate risk disclosure report can reach **\$1 million**.

CCUS-ITC and Climate Goals

The Strategic Environmental Assessment Statement that accompanied Budget 2023 in the [Tax Measures: Supplementary Information](#), noted that the CCUS-ITC measures are expected to have positive environmental impacts.

CCUS is a critical part of meeting climate change goals, and the federal government recognizes that advancing the CCUS-ITC will “help advance the government’s Federal Sustainable Development Strategy target to reduce greenhouse gas emissions by 40 to 45 per cent below 2005 levels by 2030 and achieve net-zero greenhouse gas emissions by 2050.”

Labour

The government **intends to apply labour requirements** to the CCUS-ITC starting on October 1, 2023. No consultation or details on labour requirements for the CCUS-ITC have occur, or been provided, to date.

Labour Considerations in Budget 2023

For other ITCs (i.e. hydrogen and clean technology, and electricity), [Budget 2023](#) proposes that businesses must pay compensation packages that equate to prevailing wages based on union compensation, pensions, and benefits, with 10% of tradesperson hours performed by apprentices.

Additionally, [Budget 2023](#), noted a 10% reduction for those credits if labour requirements are not met.

Unlike the hydrogen and cleantech ITCs, the 2023 Budget does not cite any upcoming labour consultations for the CCUS-ITC.

Considerations for labour are an important part of any CCUS project. In the US, the 45Q tax credit, as a result of the *Inflation Reduction Act*, sees the credit raise to \$85USD/t when labour “bonus” features are added. Without those labour measures, the base production tax credit is only \$17 USD/t.

The spur of jobs with all new ITCs should be taken very seriously. We do not want CCUS projects to incur time delays and cost escalation as the 2030 timeline approaches as a result of labour restraints.



CLEAN HYDROGEN INVESTMENT TAX CREDIT & CCUS

Projects producing hydrogen while using CCUS can apply for a separate Clean Hydrogen Investment Tax Credit (CH-ITC), but businesses can only claim one of the CH-ITC or the CCUS-ITC if the property is eligible for both.

Hydrogen Production CCUS Considerations

Eligible Projects

The CH-ITC is available to projects that produce hydrogen from electrolysis or natural gas. **Projects producing hydrogen from natural gas are required to abate emissions with CCUS.**

Eligible equipment

Eligible equipment includes equipment where **essentially all the use is to produce hydrogen**. This includes producing hydrogen through natural gas reformation, including auto-thermal reformers, steam methane reformers, pre-heating equipment, shift reactors, purifiers, water treatment and conditioning equipment, and equipment used for hydrogen compression and on-site storage.

Oxygen production equipment used for hydrogen production would also be eligible, so long as the resulting CO₂ is captured by a CCUS process.

Equipment that produces heat and/or power from natural gas or hydrogen would be eligible for the CH Tax Credit. **Dual use power or heat** production equipment (if over 50% of energy is to support the CCUS process. If the equipment produces both heat and power, only one of the heat or power energy balance needs to meet this requirement).

Ineligible expenses

Equipment in Capital Cost Allowance Classes 57 or 58 (mentioned above) are not eligible for the clean hydrogen ITC. They are only eligible for the CCUS-ITC.

Feasibility studies, front end engineering design studies, and operating expenses are also ineligible.

Eligible timeframe

The CH-ITC will be phased out starting in 2034, with property that becomes available for use in 2034 subject to a credit rate that is reduced by half; and fully phased out after 2034.

Labour Requirements

Finance Canada held consultations on how to attach to the CH-ITC labour conditions such as paying prevailing wages based on local labour market conditions and ensuring that apprenticeship training opportunities were created.

Labour requirements will need to be met to receive the maximum tax credit rates. If labour requirements are not met, credit rates will be reduced by 10 percentage points. This represents very big ratio of the tax credit rate.

These labour requirements will come into effect on October 1, 2023.

Incentive Structure

The refundable investment tax credit for investments made in clean hydrogen production are based on the lifecycle carbon intensity of hydrogen.

The levels of support are between 15 – 40% of eligible project costs, with the projects that produce the cleanest hydrogen receiving the highest levels of support.

There is also a 15% tax credit for equipment needed to convert hydrogen into ammonia (when produced in association with the production of clean hydrogen), in order to transport the hydrogen.

The proposed CH-ITC is expected to cost \$5.6B over five years, beginning 2023/24. Between 2028/29 and 2034/35, it is expected to cost an additional \$12.1B.

Carbon Intensity* (kg of CO ₂ e per kg of hydrogen produced)	Tax Credit Rate (applied to eligible costs)
< 0.75 kg	40%
0.75 kg to < 2.0 kg	25%
2.0 kg to < 4.0 kg	15%
4 kg or higher	0%

*Projects assess CI based on a fuel life cycle assessment model from “cradle-to-grave” which is submitted to the government for verification.

To be eligible for the highest tax credit rates, businesses must pay a total compensation package that equates to the prevailing wage (based on jurisdiction-based union compensation, including benefits and pension contributions from collective bargaining / project labour agreements).

Additionally, at least 10% of the tradesperson hours worked must be performed by registered apprentices in the Red Seal trades.



CARBON CONTRACTS FOR DIFFERENCE

Political uncertainty impacts potential credit revenues for proposed abatement projects. To address this uncertainty, the Government of Canada is proposing to introduce Carbon Contracts for Difference

Contracts for Difference

What are Contracts for Difference?

A contract for difference creates certainty related to the operating costs of a CCUS project. It acts as a guarantee from government to ensure project investors that the carbon price will be honoured should the market fail. In essence, it is an insurance policy on a strike price of carbon. The strike price would be determined under the contract. These are also called carbon contracts for difference (CCfDs).

If the strike price is, for instance, \$170/t, the government would pay the difference in price per tonne of CO₂ based on the contract. So, if today the price on carbon is \$65/t (in 2023), a 1Mt/year capture project would receive \$105 million this year under the contract for difference.

\$170/t may not be the strike price set, and strike prices may vary. The actual price is determined in the contract and its terms. However, \$170/t was approximately the pricing determined to make CCS viable at this early stage before costs were reduced through iterations. This could also be why the CCUS-ITC halves in 2030 when the carbon price is set to be \$170/t.

CCfDs can be one way for the government to guarantee a price, but it may require two-way contracts. Two-way contracts ensure that the project is guaranteed to be assured by the certainty but would not make a profit off the contract for difference. For instance, if the strike price is \$170/t and the project makes a \$200/t credit, then the project proponent would owe the government \$30/t under the two-way CCfD (see illustration below.)

The Canada Growth Fund & Contracts for Difference

To date, the federal government has attempted to determine which agency of government will administer contracts for difference in order to ensure they can occur in a timely fashion.

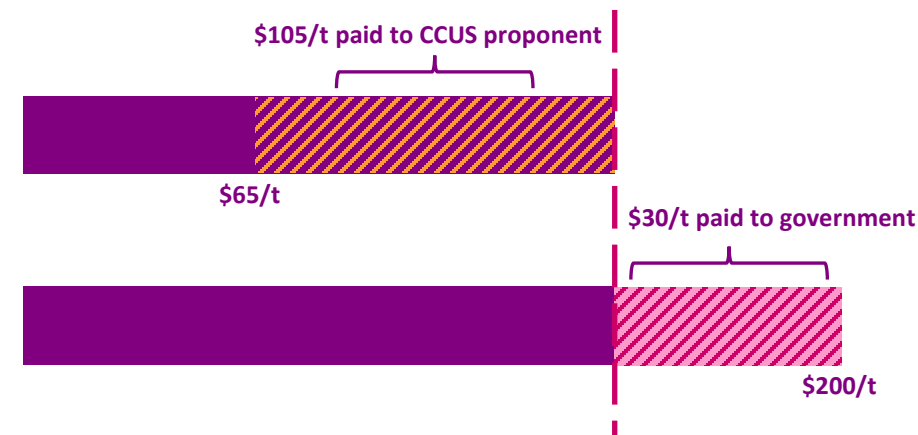
The [2022 Fall Economic Statement](#) announced the government’s intention to create the Canada Growth Fund (CGF). The CGF is designed to invest in a manner that mitigates the risks that currently limit private investment and unlock the domestic and foreign capital that Canada needs now. CCUS was listed as a strategic priority of the CGF.

The [Technical Backgrounder: Canada Growth Fund](#) lists a set of strategic principles and investment criteria that projects will also have to fall under, and projects will be monitored under performance metrics, creating more administrative hoops for projects. Importantly, contracts for differences involve an investment so there is a requirement to earn a return – it is not just another grant mechanism.

Budget 2023 does not expand on how CCfDs will work for CCUS projects, however, it did provide some new information:

- 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. This would complement contracts for difference offered by the Canada Growth Fund.
- The Canada Growth Fund will be managed by the Public Service Pension Investments Board (PSP) (separately from PSP’s main investments). The stated goal of PSP involvement is to increase the speed of investment to the first half of 2023.

Two-way Carbon Contract for Difference



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The International CCS Knowledge Centre (Knowledge Centre) is dedicated to advancing the understanding and use of large-scale carbon capture and storage (CCS) as a means of managing greenhouse (GHG) emissions. Through experience-based guidance, the Knowledge Centre provides the know-how to implement and optimize large-scale CCS projects through the base learnings from both the fully-integrated Boundary Dam 3 CCS Facility and the comprehensive second-generation CCS study, known as the Shand Study. The Knowledge Centre was founded in 2016 as a non-profit organization by BHP and SaskPower. ccsknowledge.com

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