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Tax Alert – Canada

Canada's clean technology and clean hydrogen investment tax credits: Update

EY Tax Alerts cover significant tax news, developments and changes in legislation that affect Canadian businesses. They act as technical summaries to keep you on top of the latest tax issues. For more information, please contact your EY advisor or EY Law advisor.

The Department of Finance released for public comment draft legislative proposals relating to the clean technology investment tax credit (ITC) and the clean hydrogen ITC on 12 August 2024.

The clean technology ITC rules were enacted as part of Bill C-59, *Fall Economic Statement Implementation Act, 2023*, in June 2024.¹ The draft legislative proposals include the expansion of the clean technology ITC to include certain equipment that is part of a system that generates electricity or heat (or both) from waste biomass, as first announced in the 2023 Fall Economic Statement.² Various technical amendments are also included.

The clean hydrogen ITC rules were enacted as part of Bill C-69, *Budget Implementation Act, 2024, No. 1*, in June 2024.³ The draft legislative proposals include various technical amendments to clarify and expand the clean hydrogen ITC, effective as of 28 March 2023.

This Tax Alert highlights specific clean technology ITC and clean hydrogen ITC updates contained in the latest round of draft legislative proposals.

The proposals described below may undergo further amendments before they are tabled in a bill.

¹ For more information, see [EY Tax Alert 2024 Issue No. 06](#) and [EY Tax Alert 2024 Issue No. 35](#).

² See [EY Tax Alert 2023 Issue No. 42](#).

³ For more information, see [EY Tax Alert 2024 Issue No. 36](#).

Clean technology investment tax credit

Background

The purpose of the clean technology ITC, as noted in subsection 127.45(19) of the *Income Tax Act* (the Act), is to encourage the investment of capital in the adoption and operation of clean technology property in Canada.

The ITC is refundable and available to qualifying taxpayers that make eligible investments in clean technology property on or after 28 March 2023 and before 2035. As outlined below, the tax credit rate varies depending on the year in which the property is acquired and becomes available for use, and on whether certain labour requirements are met. The labour requirements are outlined in [EY Tax Alert 2024 Issue No. 06](#).

	Acquired after 27 March 2023 and before 2034	Acquired after 2033 and before 2035	Acquired after 2034
Labour rate achieved	30%	15%	Nil
Labour rate not achieved	20%	5%	Nil

The credit is available in respect of the capital cost of certain eligible equipment that qualifies as clean technology property.⁴ Eligible equipment includes certain property described in capital cost allowance (CCA) Classes 43.1, 43.2 and 56, which have 30%, 50% and 30% declining-balance-basis CCA rates, respectively. Eligible equipment included in these CCA classes is also eligible for enhanced first-year depreciation under the accelerated investment incentive if acquired and available for use before 2028.

Preliminary work activity

The proposed amendments include a new definition for *preliminary work activity*, which restricts certain expenditures from being included in the capital cost of clean technology property under subsection 127.45(5) of the Act for purposes of computing the clean technology ITC. It should be noted that expenditures related to preliminary work activities are also excluded from the capital cost of property for purposes of computing the clean electricity ITC. For more information on the clean electricity ITC, see EY Tax Alert 2024 Issue No. 49, [Canada's new clean electricity investment tax credit](#).

⁴ For more information, see [EY Tax Alert 2024 Issue No. 06](#).

Generally, these are costs related to an activity that is preliminary to the acquisition, construction, fabrication or installation by or on behalf of a taxpayer of eligible property. A preliminary activity includes, but is not limited to, the following:

- ▶ Obtaining a right of access to a project site or permits;
- ▶ Obtaining regulatory approvals, including conducting environmental assessments;
- ▶ Performing front-end design or engineering work (including front-end engineering design studies) or process engineering work for the project – these activities include (1) collecting and analyzing site data; (2) computing energy, mass, water or air balances; (3) analyzing process design options; (4) selecting the optimal process design; and (5) conducting various feasibility studies;
- ▶ Excavating or clearing land;
- ▶ Constructing a temporary access road to the site; or
- ▶ Drilling a well.

These proposed amendments are deemed to have come into force on 28 March 2023 (the same date the credit became effective).

Other adjustments in calculating the ITC base

In addition to the above, the draft legislative proposals in subsection 127.45(5) provide further restrictions on eligible expenditures as they relate to the clean technology ITC, including technical amendments to:

- ▶ Clarify that a clean technology ITC will not be denied if a previous clean technology ITC amount was claimed in respect of the same property in order to ensure that additional claims may be made in subsequent years if government or non-government assistance is repaid (under subsection 127.45(7)) or in situations where unpaid amounts are ultimately paid (under subsection 127.45(9));
- ▶ Ensure that a clean technology ITC cannot be claimed if another clean economy tax credit is deducted on the same amount; and
- ▶ Clarify that the clean technology ITC is not available in respect of a property on which the carbon capture, utilization and storage (CCUS) tax credit or the clean hydrogen ITC has been claimed on any part of the capital cost of that property.

These amendments are deemed to have come into force on 28 March 2023 (the same date the credit became effective).

Proposed amendments from the 2023 Fall Economic Statement

The August draft legislative proposals include several amendments to Section 127.45 to extend the availability of the clean technology ITC to certain equipment that supports the generation of electricity or heat (or both) from waste biomass, as announced as part of the 2023 Fall Economic Statement.

To implement this expansion, *waste biomass electricity generation equipment* and *waste biomass heat generation equipment*, as discussed below, are added to the list of property eligible for the clean technology ITC, effective 21 November 2023.

As detailed below, consequential to the expansion of the clean technology ITC, additional definitions have also been added to subsection 127.45(1).

The proposed definitions are deemed to have come into force on 21 November 2023.

Waste biomass electricity generation equipment

The draft legislative proposals define *waste biomass electricity generation equipment* in subsection 127.45(1) to set forth eligibility criteria for property that uses certain waste materials to generate electricity or heat (or both) and to describe eligible property.

Certain property is specifically excluded from the definition, including a building (or other structure), heat rejection equipment, transmission equipment, distribution equipment, certain equipment used to export heat energy from a system, equipment for the handling or storage of feedstock or fuel, and property described in Classes 57 and 58.

Eligibility criteria

To qualify, the property must be part of a system that satisfies the following conditions:

- ▶ It is used solely to generate electricity or heat (or both). Equipment that is part of a system that produces any chemicals or fuel for sale is excluded.
- ▶ All or substantially all of the energy content of the material fuelling the system must be from specified waste material on an annual basis.
- ▶ It is located on a single site or on contiguous or adjacent sites functioning as a single integrated site.
- ▶ It has a maximum heat rate of 11,000 BTU per kilowatt-hour, as computed using the formula noted in the definition.

Eligible property

The following property within a system that meets the requirements listed above may qualify as *waste biomass electricity generation equipment*:

- ▶ Electrical generating equipment, including heat generating equipment used primarily to produce heat energy to operate electrical generating equipment;
- ▶ Equipment that generates both electrical and heat energy;
- ▶ Certain heat recovery equipment;
- ▶ Eligible equipment that uses all or substantially all specified waste material to produce solid biofuel, liquid biofuel or gaseous biofuel,⁵ if such fuel is used solely to operate the equipment noted above that is described in Class 43.1 (d)(xi), (xiii), (xvi) or (xx);
- ▶ Equipment used to upgrade the combustibility of specified waste material used solely to operate certain equipment described above; and
- ▶ Certain ancillary equipment that is physically and functionally integrated with equipment described above, such as control, feedwater and condensate systems.

Waste biomass heat generation equipment

The draft legislative proposals also define *waste biomass heat generation equipment* in subsection 127.45(1) to set forth eligibility criteria for property that uses certain waste materials to generate heat and to describe eligible property.

Certain property is specifically excluded from the definition, including equipment used to produce heat energy to operate electrical generating equipment, a building (or other structure), heat rejection equipment, certain equipment used to export heat energy from the system, equipment for the handling or storage of feedstock or fuel, and property described Class 10, 17, 57 or 58.

Eligibility criteria

The system-level requirements of a system that generates heat are largely the same as for waste biomass electricity generation equipment discussed above, except that:

- ▶ Part of the system may be used to produce biofuel from specified waste material as long as it is not from spent pulping liquor; and
- ▶ The system is not subject to a maximum heat rate per kilowatt-hour.

⁵ The August draft legislative proposals include proposed definitions for specified waste material, solid biofuel, liquid biofuel and gaseous biofuel.

Eligible property

The following property within a system that meets the requirements listed above may qualify as *waste biomass heat generation equipment*:

- ▶ Heat generating equipment;
- ▶ Eligible equipment that uses all or substantially all specified waste material, other than spent pulping liquor, to produce solid biofuel, liquid biofuel or gaseous biofuel,⁶ if such fuel is used solely to operate equipment noted above that is described in Class 43.1 (d)(xi), (xiii), (xvi) or (xx);
- ▶ Equipment used to upgrade the combustibility of specified waste material (other than spent pulping liquor) used solely to operate equipment described above; and
- ▶ Certain ancillary equipment that is physically and functionally integrated with equipment described above, such as control, feedwater and condensate systems.

Environmental compliance and reasonable efforts

To support the ITC's environmental objectives, proposed subsections 127.45(5.1) and (5.2) have been introduced, which prevent qualifying taxpayers from obtaining the ITC in cases of substantial non-compliance with environmental laws, by-laws and regulations applicable to the property at the time the property become available for use.

The draft legislative proposals include temporary relief in certain circumstances where waste biomass electricity generation equipment or waste biomass heat generation equipment is part of a system that temporarily becomes used in a *non-clean technology use* (as defined in subsection 127.45(1)). Under the current legislation, such property would be subject to recapture under subsections 127.45(11) to (18); however, the proposed amendments would allow relief to qualifying taxpayers if all reasonable efforts to rectify the difficulty causing the deficiency are made within a reasonable period of time.

For purposes of the relief, a system may include property of another person or partnership if the following conditions are met:

- ▶ The property would be considered to be part of the system if the taxpayer owned the property;
- ▶ The property uses electrical or heat energy from the system;
- ▶ The property's operation is necessary for the taxpayer's system to work properly; and
- ▶ The taxpayer could not have reasonably expected any issues to occur with the property within five years of the time the system became operational.

⁶ The August draft legislative proposals include proposed definitions for specified waste material, solid biofuel, liquid biofuel, gaseous biofuel and spent pulping liquor.

These proposed provisions are deemed to have come into force on 21 November 2023.

Proposed amendments with respect to partnerships

The draft legislative proposals include the following three new subsections with respect to partnerships.

- ▶ **Election by member of a partnership to pay tax:** Proposed subsection 127.45(18.1) allows a qualifying taxpayer that is a member of a partnership to elect to pay the entire amount determined in respect of the partnership under the related recapture rules in subsections 127.45(16) and (17) of the Act.
- ▶ **Joint and several and solidary liability:** Proposed subsection 127.45(18.2) is intended to create a joint and several liability for current and former members of the partnership for any tax determined as a result of the related recapture rules in subsections 127.45(16) and (17) in respect of the partnership. The proposed provision will not apply to the extent that the tax has been paid by a qualifying taxpayer under proposed subsection 127.45(18.1) or has been allocated to a member of the partnership under subsection 127.45(17).
- ▶ **Former member liability:** Proposed subsection 127.45(18.3) limits the liability imposed under proposed subsection 127.45(18.2) to the total of all amounts that the former member of the partnership received as a clean technology ITC.

These proposed provisions are deemed to have come into force on 21 November 2023.

Clean hydrogen investment tax credit

Background

The purpose of the clean hydrogen ITC, as provided for in subsection 127.48(31), is to encourage the investment of capital in the production of clean hydrogen and clean ammonia in Canada.

The ITC is refundable and available to *qualifying taxpayers* that make investments in eligible clean hydrogen property on or after 28 March 2023 and before 2035. As outlined below, the tax credit rate varies depending on the expected carbon intensity of the production process,⁷ the year in which the property is acquired and becomes available for use, and whether certain labour requirements are met. The labour requirements are outlined in [EY Tax Alert 2024 Issue No. 21](#).

⁷ Carbon intensity is defined in subsection 127.48(1) as the quantity in kilograms of carbon dioxide equivalent per kilogram of hydrogen produced.

	Acquired after 27 March 2023 and before 2034	Acquired in 2034	Acquired after 2034
Carbon intensity is less than 0.75	40.0%	20.0%	Nil
Carbon intensity is 0.75 or greater and less than 2	25.0%	12.5%	Nil
Carbon intensity is 2 or greater and less than 4	15.0%	7.5%	Nil

The credit is available in respect of the capital cost of certain eligible equipment that qualifies as clean hydrogen property.⁸ Eligible equipment includes certain property used to produce hydrogen through electrolysis of water or from eligible hydrocarbons, as well as clean ammonia equipment, dual-use electricity and heat equipment, and dual-use hydrogen and ammonia equipment. Eligible equipment also includes various supporting equipment and infrastructure costs, along with control, monitoring or safety systems in support of the equipment. Eligible equipment is also eligible for enhanced first-year depreciation under the accelerated investment incentive if acquired and available for use before 2028.

Draft amendments to clarify and expand the clean hydrogen ITC

The draft legislative proposals include changes to several definitions that help determine a taxpayer’s clean hydrogen ITC, including:

- ▶ The definition of *dual-use hydrogen and ammonia equipment* is repealed and replaced by the new definition for *oxygen and nitrogen production equipment* to include equipment that may be used for hydrogen or ammonia production, as well as processes that indirectly support such production. Oxygen and nitrogen production equipment is defined as equipment that is part of a clean hydrogen project and used to produce oxygen or nitrogen to be used all or substantially all in hydrogen production, ammonia production, electricity or heat production to support the project or a CCUS process related to the project.
- ▶ The definition of *dual-use electricity and heat equipment* refers to equipment that is part of a clean hydrogen project and helps produce hydrogen from eligible hydrocarbons. The definition also describes equipment that generates electrical energy, heat energy or both, as long as more than 50% of the energy produced over the first 20 years of the project is expected to support a qualified CCUS project or a qualified clean hydrogen project. The definition is amended to clarify that this requirement is met if more than 50% of the electrical energy or heat energy produced supports one or both types of projects.

⁸ For more information, see [EY Tax Alert 2024 Issue No. 21](#).

- ▶ The definition of *eligible clean hydrogen property* is amended to clarify that property described in subparagraphs (c)(i) and (ii) must be used to produce all or substantially all hydrogen. For example, certain equipment would be ineligible for the ITC if it produces oxygen representing a significant portion (e.g., more than 10%) of the project's total revenue. In the case of eligible property that produces hydrogen from eligible hydrocarbons, any captured carbon produced by that property may be ignored when determining if it was used to produce all or substantially all hydrogen. In addition, a reference to partial oxidation reactors is added to clarify the intent for this equipment to be eligible.
- ▶ The definition of *eligible power purchase agreement* is amended to allow agreements that provide electricity to a clean hydrogen project by direct connection, without necessarily being connected to the province or territory's electricity grid in which the project is located. Under the current definition, the source of electricity must be located in one of the following places: in the same province or territory as the taxpayer's clean hydrogen project, in Canada's exclusive economic zone, or in a neighbouring province or territory if the taxpayer has arranged for the necessary interprovincial transmission.

All the proposed changes to the definition are deemed to have come into force on 28 March 2023 (the same date the credit became effective).

Capital cost of clean hydrogen property

The August draft legislative proposals include amendments to the rules in subsection 127.48(10) relating to the determination of the capital cost of eligible clean hydrogen property for the purpose of the ITC, including amendments to:

- ▶ Clarify that the clean hydrogen ITC will not be denied if a previous clean hydrogen ITC amount was claimed in respect of the same property in order to ensure that additional claims may be made in subsequent years if government or non-government assistance is repaid (under subsection 127.48(11)) or in situations where unpaid amounts are ultimately paid (under subsection 127.48(13));
- ▶ Clarify that certain dual-use equipment is not precluded from being eligible for the CCUS tax credit and the clean hydrogen ITC, if different portions of the property's capital cost are used to claim each credit;
- ▶ Ensure that a clean hydrogen ITC cannot be claimed if another clean economy tax credit is deducted on the same amount; and
- ▶ Refer to the new defined term *oxygen and nitrogen production equipment* and clarify that the allocation of the cost of certain property used in both hydrogen and ammonia production should be based on expected use of the equipment over the first 20 years of the clean hydrogen project's operations, as specified in the project's most recent project plan.

Furthermore, certain amendments to subsection 127.48(6) have also been added. This provision specifies various rules that apply for the purposes of calculating the actual and expected carbon intensities of hydrogen produced and to be produced by a clean hydrogen project of a taxpayer.

The proposed amendments are deemed to have come into force on 28 March 2023 (the same date the credit became effective).

Clean hydrogen project determination and rules

Under the current legislation, the Minister of Natural Resources may request any necessary documentation or information to confirm the taxpayer's clean hydrogen project plan (or a revised plan), pursuant to paragraph 127.48(9)(e) of the Act. The requested information must be provided by the taxpayer within 180 days of the request.

The draft legislative proposals provide updated deadlines where requested information is not available within 180 days of the request or the information only becomes available after a project is confirmed by the Minister of Natural Resources (e.g., a finalized and legally binding power purchase agreement).

Under the proposed amendments, a qualifying taxpayer would be required to submit the information requested by the later of the day that is 180 days after the information was requested and 60 days after the information becomes available. If the taxpayer fails to provide the requested information, the Minister of Natural Resources may refuse to confirm the clean hydrogen project plan (or revised plan); general penalties under the Act in respect of the failure may also apply.

Property deemed in respect of qualified project

The August draft legislative proposals provide some relief where a clean hydrogen project plan has not yet been accepted. Specifically, proposed subsection 127.48(13.1) prevents certain property from being excluded from the clean hydrogen ITC where the Minister of Natural Resources has not yet accepted the clean hydrogen project plan. If the project becomes a qualified clean hydrogen project in due course, then the property will be deemed to have been acquired in respect of a qualified clean hydrogen project.

Proposed amendments with respect to partnerships

The draft legislative proposals include the following amendments with respect to partnerships:

- ▶ ***Joint and several and solidary liability***: Subsection 127.48(28) is amended to provide that both current and former members of the partnership are subject to this provision.

- ▶ **Former member liability:** Proposed 127.48(28.1) limits the liability imposed under subsection 127.48(28) to the total of all amounts that the former member of the partnership received as a clean hydrogen ITC.

Multiple tax credits

Section 127.47 of the Act provides rules that apply to partnerships with respect to certain clean economy ITCs, including rules regarding the allocation of ITCs from a partnership to its members.

The draft legislative proposals released on 12 August 2024 include proposed subsection 127.47(4.1) of the Act, which provides rules to clarify the amount that a taxpayer who is a member of a partnership is deemed to have paid on account of its tax payable under Part I of the Act under each of the clean economy tax credits. A qualifying taxpayer is generally restricted to claiming only one of the clean economy tax credits if the property is eligible for more than one clean economy tax credit.

If property is eligible for more than one clean economy ITC, a qualifying taxpayer is generally limited to one of the tax credits on the cost of the property. Proposed subsection 127.47(4.1) generally provides that where property is owned at the partnership level, each member of the partnership may generally claim any one – but not more than one – credit that they have been allocated by a partnership. The rules provide an exception to ensure that the dual-use equipment rules in the CCUS and clean hydrogen ITC context still allow each portion of the property to support a credit claim.

For more information on proposed subsection 127.47(4.1), refer to EY Tax Alert 2024 Issue No. 49, [Canada's new clean electricity investment tax credit](#).

Learn more

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