

Guidance on carbon management in the Cap-and-Invest Program

Context

The purpose of this document is to provide guidance on how carbon management, including carbon capture, removal, utilization, and storage, are treated under the current Climate Commitment Act (CCA) Program Rule, [WAC 173-446](#).

The CCA currently provides two pathways for carbon capture, removal, utilization, and storage in the [Cap-and-Invest Program](#):

- **Permanent sequestration emissions exemption:** Carbon dioxide emissions reported under [WAC 173-441](#) are exempt from program coverage if it can be demonstrated that the carbon dioxide is permanently sequestered for at least 1,000-years through long-term geologic sequestration or conversion into long-lived mineral form.¹
- **Offsets:** A portion of an entity's compliance obligation can be met with offset credits, which are generated from offset projects. Offset projects are defined in the CCA as projects that reduce or remove greenhouse gases that are not covered emissions,² and must follow compliance protocols that have been adopted by Ecology to generate credits.

The specific pathway that may be leveraged for carbon capture, removal, utilization, and storage projects depends on whether the greenhouse gases involved are classified as covered emissions.³

Covered entities have a compliance obligation for most greenhouse gas emissions reported under [WAC 173-441](#). There are certain categories of reported emissions that are exempt from Cap-and-Invest Program coverage, such as greenhouse gas emissions from the combustion of aviation fuels and carbon dioxide emissions from the combustion of biomass or biofuels.⁴ These are considered non-covered emissions.

¹ WAC 173-446-040(2)(a)(iii)

² RCW 70A.65.010(53)

³ RCW 70A.65.010(22) defines covered emissions as the emissions for which a covered entity has a compliance obligation.

⁴ WAC 173-446-040. Additional context on program coverage can be found in RCW 70A.65.080.

The permanent sequestration emissions exemption pathway provides an alternative for emissions reported under [WAC 173-441](#) that do not qualify for exemption under a different exemption category. It is most applicable to point source emissions, which are emissions from stationary sources such as industrial facilities or power plants that have been captured and stored and would have been otherwise covered under the Cap-and-Invest Program. The offsets pathway is applicable to non-covered emissions, such as those removed from the atmosphere or ocean and captured biogenic point source emissions.

Table 1 summarizes the pathways that may be applicable to point source carbon capture and carbon dioxide removal under current statute and rule.

Table 1: Carbon capture, removal, and storage pathways in the Cap-and-Invest Program

Emissions reduction or removal approach	Potential Cap-and-Invest Program pathway
Point source carbon capture	Permanent sequestration emissions exemption (covered emissions, 1,000-year permanence standard)
	Offsets (non-covered emissions, such as biogenic CO ₂)
Carbon dioxide reduction or removal	Offsets (non-covered emissions)

Guidance Based on Current Program Rule

Scope and intent

The concepts presented here are based on interpretation of the current language in the CCA Program Rule, specifically related to the permanent sequestration emissions exemption and offsets pathways. This guidance is intended to be a first step in providing clarity on carbon capture, removal, utilization, and storage in the Cap-and-Invest Program and provide a platform for further policy discussion. Ecology recognizes that not all carbon management pathways are fully addressed in this document (such as carbon utilization when point source emissions that are covered under the Cap-and-Invest Program are captured and utilized without being permanently sequestered). Additional policy development related to other forms of carbon management will occur in the future.

Permanent sequestration emissions exemption pathway

Ecology provides the following preliminary guidance and clarifying language related to the sequestered carbon dioxide emissions provision included in [WAC 173-446-040](#).

Relevant rule language

“(a) Covered emissions do not include the following emissions reported under chapter 173-441 WAC: ... (iii) **Sequestered carbon dioxide** when it can be demonstrated to ecology’s satisfaction that it qualifies as **permanent sequestration**, as defined in WAC 173-407-110, either through **long-term geologic sequestration** or by conversion into **long-lived mineral form**.” [WAC 173-446-040(2)(a)]

“**Permanent sequestration** means the retention of greenhouse gases in a containment system using a method that is in accordance with standards approved by ecology that creates a high degree of confidence that substantially ninety-nine percent of the greenhouse gases **will remain contained for at least 1000-years**.” [WAC 173-407-110]

Eligible emissions: For sequestered carbon dioxide emissions to be eligible for the sequestered carbon dioxide emissions exemption provision, they must:

- Be covered emissions under the Cap-and-Invest Program, as defined in [RCW 70A.65.080](#) and [WAC 173-446-040](#), including being reported under [WAC 173-441](#), as established in the CCA Program Rule, [WAC 173-446-040\(1\)\(a\)](#)
- Not qualify under another emissions exemption provision defined in [WAC 173-446-040\(2\)](#)
- Meet the requirements indicated in [WAC 173-446-040\(2\)\(a\)\(iii\)](#), including any methodologies, protocols, and/or guidance established by Ecology for demonstrating permanent sequestration, as defined by [WAC 173-407-110](#).

Not eligible: Non-covered emissions, such as biogenic emissions and emissions removed from the atmosphere or ocean. Carbon dioxide emissions that are not permanently sequestered.

Technologies and approaches: The following technologies or approaches may be considered by Ecology as a part of future protocol, methodology, and/or guidance development for the permanent sequestration emissions exemption pathway, under the existing program rule, [WAC 173-446-040\(2\)\(a\)\(iii\)](#):

- Forms of geologic storage that can be demonstrated to qualify as permanent sequestration, as defined by [WAC 173-407-110](#).
- Forms of carbon mineralization that can be demonstrated to qualify as permanent sequestration, as defined by [WAC 173-407-110](#).

Potential limitations / areas requiring additional consideration: Ecology acknowledges feedback that:

- The 1000-year permanent sequestration standard defined by [WAC 173-407-110](#), is scientifically defensible. However, there are outstanding questions related to its implementation (e.g., required timeframes for monitoring, financial assurances, and liabilities; considerations for a linked market) that need to be addressed.
- Certain forms of sequestration that may be able to leverage captured point source emissions, such as sequestration in graphite or other carbon-based materials, may meet

Ecology's 1,000-year permanent sequestration requirement. However, the language in [WAC 173-446-040\(2\)\(a\)\(iii\)](#) may not be inclusive of these approaches.

- The current CCA Program Rule's focus on sequestered carbon dioxide emissions may exclude potential opportunities for permanent sequestration of other types of greenhouse gas emissions.
- Several carbon dioxide removal approaches, such as bioenergy with carbon capture and storage, ocean alkalinity enhancement, and enhanced rock weathering, may have the potential to meet the 1,000-year permanent sequestration requirement; however, under current statute and rule, they are not eligible for the emissions exemption pathway because they do not sequester covered emissions.

The [Cap-and-Invest carbon management policy development roadmap](#) provides information on future steps Ecology plans to take to further explore and consider these potential limitations.

Offsets pathway

Ecology provides the following guidance and clarifying language related to carbon capture, removal, utilization, and storage under the offsets pathway of the Cap-and-Invest Program. General requirements for offset credits and their use as compliance instruments can be found in [WAC 173-446-500](#) through [WAC 173-446-595](#).

Relevant statute language

"Offset project means a project that reduces or removes greenhouse gases that are not covered emissions under this chapter." [\[RCW 70A.65.010\]](#)

"(4) In adopting protocols governing offset projects and covered and opt-in entities' use of offset credits, the department shall ... (c) Encourage opportunities for the development of offset projects in this state by adopting offset protocols that ... **support the development of carbon dioxide removal projects**" [\[RCW 70A.65.180\]](#)

"Carbon dioxide removal means deliberate human activities **removing carbon dioxide from the atmosphere and durably storing it** in geological, terrestrial, or ocean reservoirs, or in products. Carbon dioxide removal includes existing and potential anthropogenic enhancement of biological and geochemical sinks and including, but not limited to, carbon mineralization and direct air capture and storage. [\[RCW 70A.65.010\(14\)\]](#)

Existing offset protocols: Ecology has currently adopted four compliance offset protocols. These include:

- **Destruction of Ozone Depleting Substances Protocol**, including the destruction of chlorofluorocarbons and hydrochlorofluorocarbons
- **U.S. Forest Protocol**, including reforestation, avoided conversion, and improved forest management
- **Urban Forest Protocol**, including planting and maintaining trees in public areas
- **Livestock Protocol**, including capturing methane on dairy or swine farms

Future offset protocol development: Ecology regularly updates offset protocols based on the best available science and public input through the rulemaking process. Up-to-date information on current protocol revisions and development opportunities are on the [Cap-and-Invest Offset Program webpage](#). Currently Ecology is considering the feasibility of a Blue Carbon Offset Protocol, which includes carbon dioxide stored in aquatic ecosystems, such as seagrass beds, wetlands, and coastal and riparian forests.

The offsets pathway is inclusive of all types of carbon dioxide removal projects that meet the eligibility criteria. As Ecology continues to explore future offset protocols, there will be additional opportunities to leverage carbon dioxide reductions and removal within the Cap-and-Invest Program.

Potential Limitations / areas requiring additional consideration: Ecology acknowledges feedback that:

- Ongoing consideration of new and revised offset protocols is important to ensure that the Cap-and-Invest offset program remains up-to-date, stringent, and accessible.
- Emerging concepts related to carbon dioxide removal, such as contracted durability and other performance-based durability frameworks, may require additional discussion and consideration in the context of the Cap-and-Invest Program.⁵

The [Cap-and-Invest carbon management policy development roadmap](#) provides information on future steps Ecology plans to take to further explore and consider these potential limitations.

Contact

Email the **Cap-and-Invest carbon management team** at CCA_carboncapture@ecy.wa.gov with questions about the following areas:

- Emissions exemption compliance pathway
- General inquiries related to carbon capture, utilization, removal, and storage

Email the **Cap-and-Invest Offsets Program team** at CCAOffsets@ecy.wa.gov with questions related to the following areas:

- Offsets compliance pathway
- Offset protocols

⁵ Contracted durability mechanisms are a set of legal and financial tools, such as buffer pools and permanence trusts, that ensure carbon removal over a specified time period. It refers to the length of time that a ton of carbon dioxide represented by a carbon credit is contractually guaranteed to remain out of the atmosphere. These concepts are discussed more in RMI. 2026. Contracted Durability: A Framework for Performance-Based Carbon Removal. rmi.org/resources/contracted-durability-a-framework-for-performance-based-carbon-removal.