

Puget Sound Energy (Jessica Zahnow)

June 26, 2026

Andrew Hayes, Cap-and-Invest Policy Section Manager, Department of Ecology
Marissa Tousley, Cap-and-Invest Industrial Decarbonization Specialist, Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

Re: Puget Sound Energy Comments on Washington Department of Ecology's May 2026 Workshops on Carbon Management under the Climate Commitment Act.

On May 21 and May 28, 2026, the Washington Department of Ecology (Ecology) held workshops to discuss carbon management in Washington and in the Cap-and-Invest program. PSE appreciates the opportunity to comment on these workshops and supports the two carbon management pathways Ecology presented – an emissions exemption under the Climate Commitment Act (CCA) for sequestered emissions, and carbon offsets. PSE's comments will focus on Pathway #1, considerations for permanent sequestration, and project financial assurance and allocation of the long-term liability of these projects. PSE supports Ecology's general proposed direction and specifically the importance of point source capture at power generation facilities as a necessary tool to meet the state's greenhouse gas reduction targets – alongside tools for the hard-to-decarbonize industrial sector.

Barriers to implementing engineered carbon management in Washington

In its May 21 workshop, Ecology asked stakeholders to comment on barriers to implementing carbon management in Washington. PSE highlights three areas where regulatory action could reduce barriers.

1. Bringing down the technology cost curve, market development and support.

Point source capture technologies can provide reductions in the range of \$50-\$250/tonne, depending on the purity of the CO₂, and the ease of capture and transportation. While this is generally more economic than direct air capture, in most cases, it still exceeds other options on the carbon abatement curve. Additionally, without future federal action, federal tax credits for carbon capture, utilization, and storage (CCUS) expire in 2032. Ecology can help bring down the costs through a combination of capital investment in CCUS technologies and designing incentives to purchase materials that have captured CO₂ embedded in them - a variation of a green premium. Capital investment could be funded through CCA dollars and partnerships with other Washington agencies that are directing CCA funds to emissions reduction technologies, projects, and activities. Dedicating CCA funds to these technologies is a worthy endeavor and has clear alignment with the legislative intent to lower emissions in Washington State.

2. Increased regulatory support for CO₂ transport.

Pipelines are the only way to transport CO₂ at scale. A helpful first step would be a legal or regulatory statement that authorizes regulated entities to own and operate CO₂ pipelines. Ecology could advocate for legal and regulatory statements at the legislature and the Washington Utilities

and Transportation Commission. Transporting CO₂ by pipeline is well established with design and operating standards governing their operation. Furthermore, Ecology should include or clarify "transport" as a valid mechanism in its proposed Pathway #1 for an emissions exemption under the CCA when coupled with some form of sequestration or utilization.

3. Providing definitions of "engineered materials".

Engineered materials generally refer to durable goods that are utilized in a wide variety of downstream applications in unrelated industries, and this term is not synonymous with "permanent sequestration". Engineered materials have design lifespans and should receive credit for having sequestered carbon that matches the design life of the specific material. Examples of engineered materials include CO₂ entrained in concrete, solid carbon used to strengthen asphalt, carbon black used in the production of plastics, and carbon products such as graphite used in batteries and graphene used in the aerospace industry.

Definition of permanent sequestration

Ecology's definition of permanent sequestration appropriately prioritizes environmental integrity, particularly through its long-duration storage requirement and emphasis on post-closure care and financial assurance for funding to support long-term monitoring, maintenance, and any necessary corrective action, even if the original project developer is no longer operating. However, the current framework raises important implementation questions, including how long-term liability is allocated, whether perpetual financial assurance is practical, and how a fixed 1,000-year permanence requirement aligns with evolving scientific and international standards such as the GHG Protocol's Land Sector and Removals Standard and ISO standards which do not define a sequestration duration.

Allocating long-term liability and financial assurance

In any defined permanence period, there could be several changes in who owns, monitors, or maintains the carbon sequestration project due to corporate actions, dissolving/merging/acquisitions, insolvency, etc.. For instance, liability could initially sit with the project developer and later transfer to another private entity or potentially to a public entity after a defined post-closure period. Grey areas may arise if a company no longer exists, if ownership has changed multiple times, or if responsibilities were not clearly transferred or enforced over time. These scenarios could create uncertainty about who is ultimately accountable for long-term management and remediation. To the greatest extent possible, allocation of liability should be driven by a principle of cost causation.

Financial assurance is intended to provide a level of certainty that there will be long-term funding and support for project maintenance and unintended reversals as factors change such as project ownership. Perpetual financial assurance for the projects may be overly costly, delay market development and maturation, and may be operationally unfeasible. There is likely a spectrum of options and tradeoffs that provide various degrees of assurance, and any mechanisms employed by Ecology should balance these tradeoffs. There may also be technologies in the future that are not available today to mitigate the impacts of CO₂. Ecology could consider California's approach in Senate Bill (SB) 905 which assigns all long-term liability and responsibilities to project operators for a 100-year period and the state does not assume long-term liability. Ecology should also encourage project operators to diversify any funding mechanisms that are used to assure long-term project integrity to reduce the dependence on compliance market demand and pricing. Ecology

should continue to monitor the SB 905 rulemaking and outcomes .

Sequestration should not be bound to Washington

Ecology should allow sequestration outside the state for use in Pathway #1 – emissions exemption as long as the CO2 was captured in Washington. If the CO2 was generated in Washington, it has been removed from the emissions inventory, even if it has been moved to be sequestered elsewhere. The credited entity could be required to demonstrate to the verifier that the sequestration ultimately meets Ecology's standards, through contractual provisions, counterparty attestations, etc.. The verifier would need to confirm that the project complies with Ecology requirements even if it is sequestered out of state, likely through documentation, monitoring data, and contractual obligations (similar to how verification is done for other GHG emissions). They would also need to ensure the CO2 isn't being double counted in another jurisdiction, which is something that's already handled in programs like forest carbon offsets.

Utilization

Lastly, there was discussion in Ecology's May workshops about various utilization approaches. PSE recommends Ecology develop a standardized framework for evaluating emissions reductions versus defining specific end uses. For example, if CO2 was sold to a beverage manufacturer to displace their need to produce CO2 for beverages, Ecology could develop a framework for quantifying the lifecycle emissions of both sources of CO2 and the net difference is the reduction credit. For example, if the current CO2 source for beverages comes from something like fossil-derived processes, the user applying for the credit could demonstrate that using captured CO2 results in lower overall lifecycle emissions. The protocol could also take into consideration the locational characteristics of the CO2 capture or production.

While this methodology may not automatically guarantee emissions reductions, it could help demonstrate when point-source CO2 is a lower-emissions option and therefore a reasonable pathway for crediting. In terms of credit allocation, it may make sense for credit to go to the party responsible for the verified emissions reduction (e.g., the capture entity), while ensuring the same CO2 use is not double counted by downstream users. Essentially, this could follow a similar approach to how alternative fuels are evaluated by using lifecycle accounting to compare emissions.

* * * *

Please contact Jessica Zahnow at jessica.zahnow@pse.com or (971) 200-6026 for additional information about this filing. If you have any other questions, please contact me.

Sincerely,
/s/ Wendy Gerlitz
Wendy Gerlitz
Director, Regulatory Policy
Puget Sound Energy
PO Box 97034, BEL10W
Bellevue, WA 98009-9734
425-462-3051
Wendy.Gerlitz@pse.com



Puget Sound Energy
P.O. Box 97034
Bellevue, WA 98009-9734
pse.com

June 26, 2026

Andrew Hayes, Cap-and-Invest Policy Section Manager, Department of Ecology
Marissa Tousley, Cap-and-Invest Industrial Decarbonization Specialist, Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

Re: Puget Sound Energy Comments on Washington Department of Ecology's May 2026 Workshops on Carbon Management under the Climate Commitment Act.

On May 21 and May 28, 2026, the Washington Department of Ecology (Ecology) held workshops to discuss carbon management in Washington and in the Cap-and-Invest program. PSE appreciates the opportunity to comment on these workshops and supports the two carbon management pathways Ecology presented – an emissions exemption under the Climate Commitment Act (CCA) for sequestered emissions, and carbon offsets. PSE's comments will focus on Pathway #1, considerations for permanent sequestration, and project financial assurance and allocation of the long-term liability of these projects. PSE supports Ecology's general proposed direction and specifically the importance of point source capture at power generation facilities as a necessary tool to meet the state's greenhouse gas reduction targets – alongside tools for the hard-to-decarbonize industrial sector.

Barriers to implementing engineered carbon management in Washington

In its May 21 workshop, Ecology asked stakeholders to comment on barriers to implementing carbon management in Washington. PSE highlights three areas where regulatory action could reduce barriers.

1. Bringing down the technology cost curve, market development and support.

Point source capture technologies can provide reductions in the range of \$50-\$250/tonne, depending on the purity of the CO₂, and the ease of capture and transportation. While this is generally more economic than direct air capture, in most cases, it still exceeds other options on the carbon abatement curve. Additionally, without future federal action, federal tax credits for carbon capture,

utilization, and storage (CCUS) expire in 2032. Ecology can help bring down the costs through a combination of capital investment in CCUS technologies and designing incentives to purchase materials that have captured CO₂ embedded in them - a variation of a green premium. Capital investment could be funded through CCA dollars and partnerships with other Washington agencies that are directing CCA funds to emissions reduction technologies, projects, and activities. Dedicating CCA funds to these technologies is a worthy endeavor and has clear alignment with the legislative intent to lower emissions in Washington State.

2. Increased regulatory support for CO₂ transport.

Pipelines are the only way to transport CO₂ at scale. A helpful first step would be a legal or regulatory statement that authorizes regulated entities to own and operate CO₂ pipelines. Ecology could advocate for legal and regulatory statements at the legislature and the Washington Utilities and Transportation Commission. Transporting CO₂ by pipeline is well established with design and operating standards governing their operation. Furthermore, Ecology should include or clarify “transport” as a valid mechanism in its proposed Pathway #1 for an emissions exemption under the CCA when coupled with some form of sequestration or utilization.

3. Providing definitions of “engineered materials”.

Engineered materials generally refer to durable goods that are utilized in a wide variety of downstream applications in unrelated industries, and this term is not synonymous with “permanent sequestration”. Engineered materials have design lifespans and should receive credit for having sequestered carbon that matches the design life of the specific material. Examples of engineered materials include CO₂ entrained in concrete, solid carbon used to strengthen asphalt, carbon black used in the production of plastics, and carbon products such as graphite used in batteries and graphene used in the aerospace industry.

Definition of permanent sequestration

Ecology’s definition of permanent sequestration appropriately prioritizes environmental integrity, particularly through its long-duration storage requirement and emphasis on post-closure care and financial assurance for funding to support long-term monitoring, maintenance, and any necessary corrective action, even if the original project developer is no longer operating. However, the current framework raises important implementation questions, including how long-term liability is allocated, whether perpetual financial assurance is practical, and how a fixed 1,000-year permanence requirement aligns with evolving scientific and international standards such as the

GHG Protocol's Land Sector and Removals Standard and ISO standards which do not define a sequestration duration.

Allocating long-term liability and financial assurance

In any defined permanence period, there could be several changes in who owns, monitors, or maintains the carbon sequestration project due to corporate actions, dissolving/merging/acquisitions, insolvency, etc.. For instance, liability could initially sit with the project developer and later transfer to another private entity or potentially to a public entity after a defined post-closure period. Grey areas may arise if a company no longer exists, if ownership has changed multiple times, or if responsibilities were not clearly transferred or enforced over time. These scenarios could create uncertainty about who is ultimately accountable for long-term management and remediation. To the greatest extent possible, allocation of liability should be driven by a principle of cost causation.

Financial assurance is intended to provide a level of certainty that there will be long-term funding and support for project maintenance and unintended reversals as factors change such as project ownership. Perpetual financial assurance for the projects may be overly costly, delay market development and maturation, and may be operationally unfeasible. There is likely a spectrum of options and tradeoffs that provide various degrees of assurance, and any mechanisms employed by Ecology should balance these tradeoffs. There may also be technologies in the future that are not available today to mitigate the impacts of CO₂. Ecology could consider California's approach in Senate Bill (SB) 905 which assigns all long-term liability and responsibilities to project operators for a 100-year period and the state does not assume long-term liability. Ecology should also encourage project operators to diversify any funding mechanisms that are used to assure long-term project integrity to reduce the dependence on compliance market demand and pricing. Ecology should continue to monitor the SB 905 rulemaking and outcomes¹.

Sequestration should not be bound to Washington

Ecology should allow sequestration outside the state for use in Pathway #1 – emissions exemption as long as the CO₂ was captured in Washington. If the CO₂ was generated in Washington, it has been removed from the emissions inventory, even if it has been moved to be sequestered elsewhere. The credited entity could be required to demonstrate to the verifier that the sequestration ultimately meets Ecology's standards, through contractual provisions, counterparty attestations, etc.. The verifier would need to confirm that the project complies with Ecology requirements even if it is sequestered out of state, likely through documentation, monitoring data, and contractual obligations (similar to how verification is done for other GHG emissions). They

¹ [Concepts for Potential Regulations for Establishing the Carbon Capture, Removals, Utilization, and Storage Program Authorized by Senate Bill 905 \(Caballero, 2022\) | California Air Resources Board](#)

would also need to ensure the CO₂ isn't being double counted in another jurisdiction, which is something that's already handled in programs like forest carbon offsets.

Utilization

Lastly, there was discussion in Ecology's May workshops about various utilization approaches. PSE recommends Ecology develop a standardized framework for evaluating emissions reductions versus defining specific end uses. For example, if CO₂ was sold to a beverage manufacturer to displace their need to produce CO₂ for beverages, Ecology could develop a framework for quantifying the lifecycle emissions of both sources of CO₂ and the net difference is the reduction credit. For example, if the current CO₂ source for beverages comes from something like fossil-derived processes, the user applying for the credit could demonstrate that using captured CO₂ results in lower overall lifecycle emissions. The protocol could also take into consideration the locational characteristics of the CO₂ capture or production.

While this methodology may not automatically guarantee emissions reductions, it could help demonstrate when point-source CO₂ is a lower-emissions option and therefore a reasonable pathway for crediting. In terms of credit allocation, it may make sense for credit to go to the party responsible for the verified emissions reduction (e.g., the capture entity), while ensuring the same CO₂ use is not double counted by downstream users. Essentially, this could follow a similar approach to how alternative fuels are evaluated by using lifecycle accounting to compare emissions.

* * * *

Please contact Jessica Zahnow at jessica.zahnow@pse.com or (971) 200-6026 for additional information about this filing. If you have any other questions, please contact me.

Sincerely,

/s/ **Wendy Gerlitz**

Wendy Gerlitz
Director, Regulatory Policy
Puget Sound Energy
PO Box 97034, BEL10W
Bellevue, WA 98009-9734
425-462-3051
Wendy.Gerlitz@pse.com