

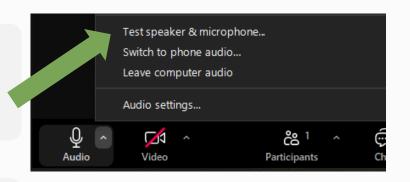


Cap-and-Invest: Emissions-intensive, trade exposed industries Report to the Legislature

Public Meeting: August 6, 2025



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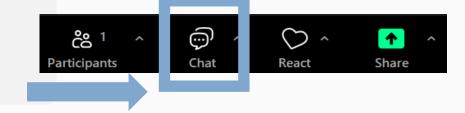


Slow internet connection: consider calling for clearer audio. Dial 253-215-8782. Input meeting ID: 894 5484 6684 and passcode: 803039

Zoom tips

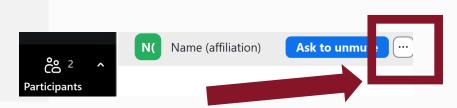


Technical difficulties: Message Jihan Grettenberger in the chat.





Change name: Help us know who is here and rename yourself with your affiliation (optional)





Zoom tips for participation

Raise your hand and we'll call on you to share your questions or comments.

(Dial *9 to raise your hand if you called in.)

Type your questions in the Q&A and comments in the chat.

To view live, autogenerated captions, click the "captions" button.











Cap-and-Invest: Emissions-intensive, trade exposed industries Report to the Legislature

Public Meeting: August 6, 2025

Introductions

- Jihan Grettenberger Facilitator, Cap-and-Invest Outreach Specialist
- Adrian Young Cap-and-Invest Industrial Policy Lead
- Isabel Hanify Cap-and-Invest Industrial Policy Planner

Agenda

- 1 Climate Commitment Act overview
- Overview of Emission-intensive, trade-exposed industries (EITEs)
- Report to Legislature on EITEs: draft findings, timeline, and opportunities for input
- 4 Preliminary environmental justice evaluation
- 5 Next steps

Meeting goals

- Understand why Ecology is preparing a report on EITEs for the Legislature and what will be included
- Identify where EITE facilities are located in Washington
- Seek feedback on how EITE policy changes could affect your community's health, air quality, and economic opportunities



Temp check

How familiar are you with the Cap-and-Invest Program?

How familiar are you with EITEs and EITE policies?

What are you hoping to learn or take away from this meeting?



Climate Commitment Act (CCA)



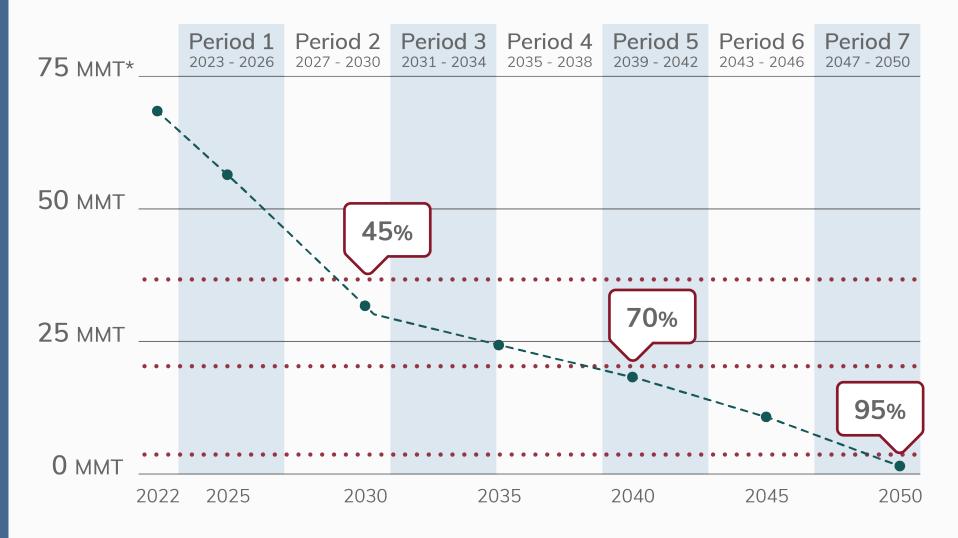
Cap-and-Invest Program



Initiative to improve air quality

Cap-and-Invest Program

Projected greenhouse gas emissions cap over time



^{*}MMT = million metric tons of carbon dioxide equivalent Reductions based on 1990 emission levels

Which emissions are covered?

Covered emissions (~70%)



Facilities



Fuel suppliers



Electricity imports



Natural gas suppliers

Not covered (~30%)



Fuels used for agricultural operations



Fuels used for maritime and aviation



Waste-to-energy*



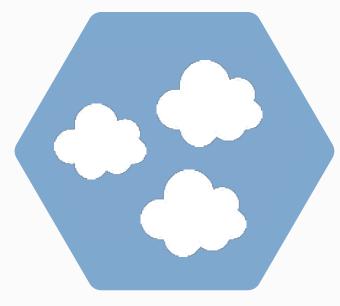
Railroads*

*will be added to covered emissions in the future

Ways to comply



Reduce greenhouse gas emissions



Emissions allowances



Offset credits

Initiative to improve air quality

Engaging with 16 overburdened communities, and Tribes through Government-to-Government consultation.

- Expanding air monitoring
- Adopting strategies to reduce air pollution
 - Community grant program
 - Rulemaking for more protective air quality standards
- Evaluating and reporting air pollution, greenhouse gas, and health data every two years





Overview of Emissions-intensive, trade-exposed industries (EITEs)

What are EITEs?

Manufacturing facilities with high energy needs and high greenhouse gas emissions ("emissions-intensive")

Face significant competition for their products ("trade-exposed")

About 40 facilities qualify as EITES as designated by the Legislature

- Producers of paper, food, building materials, airplanes, and transportation fuels
- Emit more than 25,000 metric tons of carbon emissions a year



Location of EITE facilities

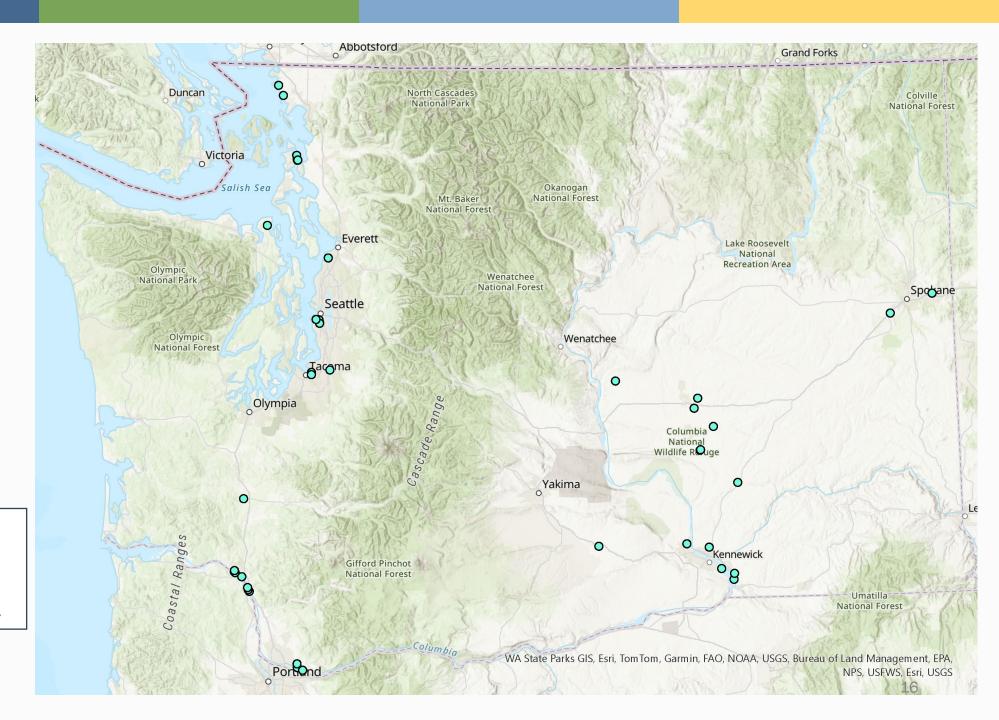
Map key



EITE facility

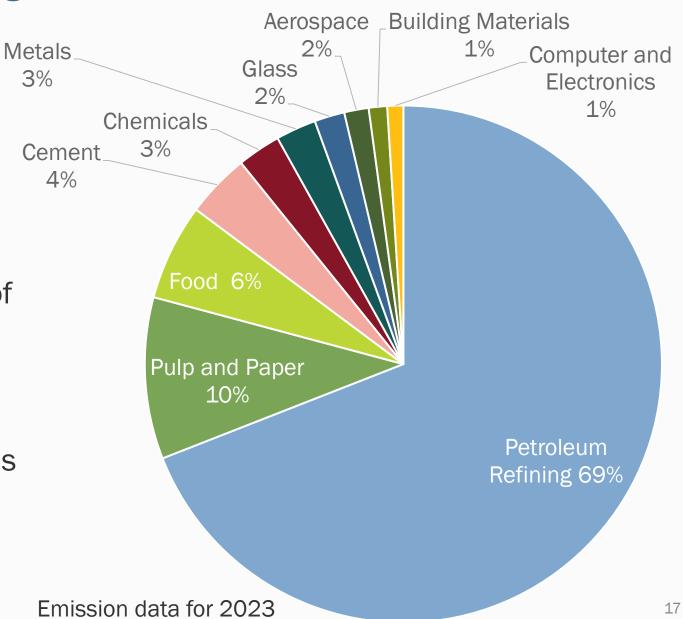
Data as of Dec. 2024

List of active EITEs



Covered emissions from EITEs

- EITE emissions generally associated with onsite combustion of fossil fuels or other process emissions
- EITEs represented about 14% of total reported emissions in 2023
- Petroleum refining responsible for 69% of all covered emissions from EITEs



EITE allowance allocation

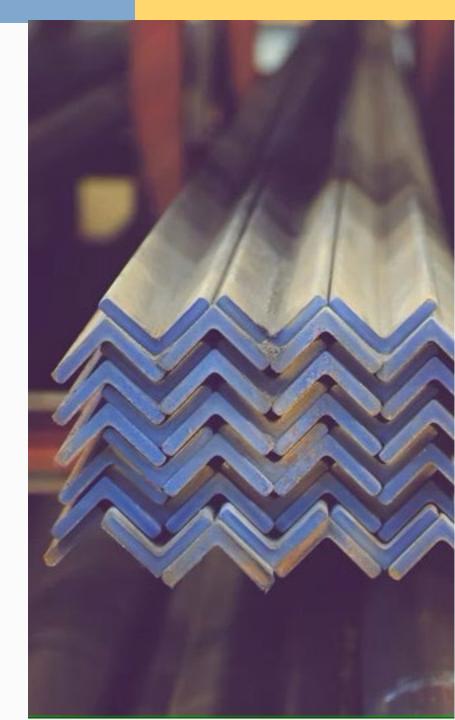
- EITEs receive no-cost allowances until 2034
 - Intended to protect jobs and investments
 - Avoid businesses from moving outside of the state, known as 'leakage
- In 2024, 16% of the total allowances* were for EITEs
- Most carbon trading programs take this approach to EITEs to address leakage risk

* Total allowances includes allowances distributed by Ecology through auction and at no cost to EITEs and natural gas and electric utilities.



EITEs are subject to the cap

- Like all major greenhouse gas emitters, EITEs are expected to reduce their emissions
- Short-term incentive to lower emissions
 - Save extra allowances for future use
 - Sell them to other program participants
- An EITE with covered emissions exceeding its allowances must purchase additional allowances to meet its compliance obligation



Calculating EITE allowances

- 1. Establish a facility's baseline emissions: Average emissions per unit of production during 2015-2019
- 2. Calculate allowances per facility based on baseline emissions and production
- 3. Update a facility's allowances to reflect actual production that year
- 4. No-cost allowances to EITEs declines over time through 2034 (as shown in table)

| Years | No cost allowances to EITEs |
|---------------|-----------------------------|
| 2023- 2026 | 100% of baseline emissions |
| 2027- 2030 | 97% of baseline emissions |
| 2031- 2034 | 94% of baseline emissions |

Approach set out in the CCA (<u>RCW 70A.65.110</u>) and program rule (<u>WAC 173-446-220</u>)

Illustrative scenario: EITE allowance allocation under existing CCA policies and 2025 production

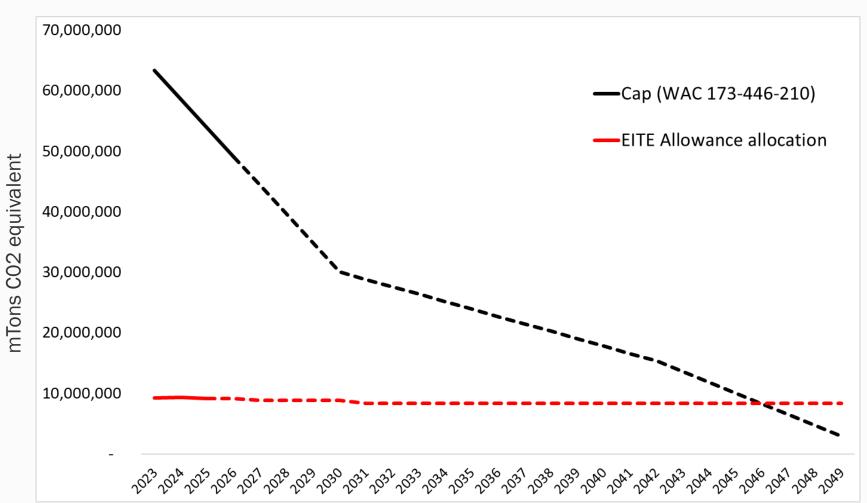


Chart includes the following inputs:

- Annual program allowance budgets based on existing program rule (does not include changes to Allowance Price Containment Reserve (APRC) approved by House Bill 1975) and assumes no sale of APCR units.
- EITE allowance allocation based on legislated reduction schedules for 2023-2034 and 'default' reduction schedule for 2025-2050 (94%).
- Assumes EITE facilities maintain same production/output levels from 2025 through to 2049.



Questions about EITEs



Report to the Legislature

EITE allowance allocation 2035-2050



Report on EITE allocation: 2035-2050

- The Legislature has not specified the approach to EITE allocation for 2035-2050
- Ecology must compile a report that offers information and recommendations on how best to proceed
- Legislature will need to determine the approach to EITE allocation for 2035-2050
- Ecology is aiming to submit report by end of 2025

| Years | Reduction schedule for EITE allocation |
|-----------|--|
| 2023-2026 | 100% of baseline emissions |
| 2027-2030 | 97% of baseline emissions |
| 2031-2034 | 94% of baseline emissions |
| 2035-2050 | Not specified in CCA (default is 94%) |

Focus areas for the report to the Legislature

- ✓ Best practices for avoiding 'leakage' of emissions and economic harm
- ✓ Alternative methods for measuring the emissions generated by EITEs per unit of production (i.e. baseline emissions for EITEs)
- ✓ How to determine the amount of allowances EITEs receive in 2035-2050.
- ✓ Opportunities and barriers for decarbonization of EITEs in Washington
- ✓ Environmental justice outcomes and economic impacts, including
 - Local air pollution
 - Health impacts
 - Employment opportunities
 - Changes to Cap-and-Invest revenue

Report timeline and engagement approach

Aug.-Dec. 2024 (Phase 1) Complete

- Collected information, and identified key issues and policies
- Established advisory groups
- Convene Tribal forum
- Convene public meeting

May-Aug. 2025 (Phase 2)

In progress

- Develop and test draft findings and recommendations
- Discuss policy impacts
 - Offer Government-to-Government consultation
 - Tribal forum
 - Advisory groups
 - Small group meetings
 - Public meeting
- Feedback due Sept. 3, 2025

Sept.-Nov. 2025 (Phase 3)

Upcoming

 Ecology prepares and submits final report to the Legislature.

Draft materials released to date

- Document 1: Best practice policies for avoiding leakage (May 1, 2025)
- Document 2: Methods for developing greenhouse gas benchmarks (May 1, 2025)
- <u>Document 3: Framework for assessing potential methods</u>
 <u>for EITE allowance allocation</u> (May 29, 2025)
- <u>Document 4: Potential methods for allocating allowances</u> to EITEs from 2035-2050 (May 29, 2025)
- Document 5: Review of options for allocating allowances to EITEs for 2035-2050 (June 26, 2025)
- <u>Document 6: Draft recommendations</u> (July 24, 2025)

Summary of draft documents



Review of policies for avoiding leakage

- Places with similar Cap-and-Invest programs include policies to mitigate leakage and maintain the competitiveness of EITEs
- These leakage mitigation policies seek to achieve multiple objectives including:
 - Establishing a 'level playing field' for industries in Washington
 - Maintaining incentives to reduce emissions
 - Supporting achievement of climate goals
- The most common leakage mitigation policy is free allocation of allowances

"Leakage" happens when efforts to cut greenhouse gas emissions in Washington cause businesses to move their operations to other places without similar climate rules. This shift can lead to more pollution outside the state, canceling out the progress made in Washington.

Benchmarking greenhouse gas emissions

- Benchmarking greenhouse gas emissions = assessing the emissions produced per unit of product or output
- Benchmarking is considered a 'best practice' approach for allocating allowances to EITEs
 - Rewards investment in more efficient/lower carbon production while mitigating leakage risk
 - Examples include product-based benchmarking and energybased benchmarking
- EITE allocation in Washington does not currently use any conventional benchmarking

"Product based benchmarking" compares emissions per unit of product made (i.e. emissions per ton of steel)

"Energy-based
benchmarking" compares
emissions based on the
amount of energy used (e.g.,
emissions per unit of natural
gas consumed)

Identifying and assessing policy options

- Policy objectives for allocating allowances to EITEs from 2035-2050:
 - Establish a level playing field for EITEs producing within Washington
 - Identify and target industrial sectors most at risk of leakage
 - Maintain decarbonization incentives and reward investment in efficient production
 - Align with program caps and emissions limits
- Two-step framework for identifying and assessing 16 potential options for EITE allowance allocation.

- Nine draft recommendations regarding the approach for allocating allowances to EITEs from 2035-2050
 - Two draft recommendations under each of the four Policy Design Considerations
 - One draft recommendation addressing environmental justice and economic impacts
- Assumes recommendations would be considered in 2026 to inform policy development
- Complementary measures that could potentially support EITE decarbonization and emissions limits



Establish a level playing field for EITEs producing within the jurisdiction

- Maintain Ecology's authorization to provide no-cost allowances to EITEs from 2035 onwards provided it aligns with program objectives, allowance budgets, and emissions limits. (Recommendation 1.1)
- Monitor developments in carbon pricing policies and federal policies including developments in carbon border adjustment mechanisms or alternative policies to address leakage risk. (Recommendation 1.2)

Identifying and targeting assistance for EITEs in Washington that are most at risk of leakage

- Develop an objective approach for assessing leakage risk in WA and assess the impacts of an assistance factor that targets allowance allocation based on leakage risk. (Recommendation 2.1)
- Assess the requirements and impacts of providing no-cost allowances for addressing leakage risk associated with purchased electricity. (Recommendation 2.2)

Maintain decarbonization incentives for EITEs and reward investment in efficient production

- Assess the requirements and impacts of adopting product-based benchmarks or alternative methods for establishing allocation baselines for EITE allowance allocation. (Recommendation 3.1)
- Assess the requirements and impacts of using consignment to require EITEs to invest some of the value of their no-cost allowances in decarbonization projects. (Recommendation 3.2)

Align with program cap and emissions limits

- Assess the policy design requirements and impacts of implementing a cap adjustment factor to ensure EITE allowance allocation aligns with program allowance budgets and net-zero emissions limits. (Recommendation 4.1)
- Assess at least one alternative policy option that would achieve a similar outcome as a cap adjustment factor. (Recommendation 4.2)

Environmental justice and economic impacts

- Ecology has undertaken a preliminary environmental justice evaluation and compiled information on the economic impacts of EITEs.
 - Information and analysis prepared for Ecology by <u>Eastern Research Group</u> (ERG)
- Feedback highlights the importance on assessing impacts of future changes to EITE allowance allocation policies on these issues.

Draft recommendation

 Assess the environmental justice and economic impacts of EITE allowance allocation policy options and interactions with existing CCA policies (Recommendation 5.1)

Complementary policies to support decarbonization and emission reductions

- A list of potential complementary policies to support decarbonization and emission reductions in Appendix 1 of Document 6
 - For example, policies and strategies in the draft Comprehensive Climate Action Plan
- Ecology seeking feedback on whether these policies could support decarbonization by EITEs
- Will consider feedback received on draft Comprehensive Climate Action Plan

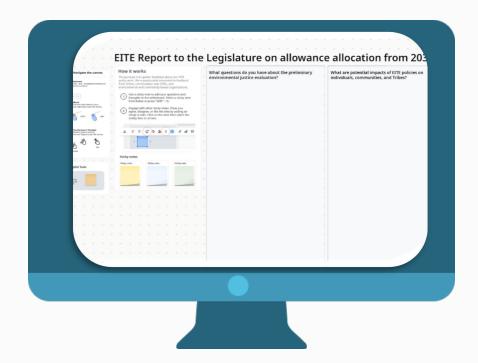




Questions about the report or recommendations

Whiteboard activity

- 1. What questions do you have about the impact of EITE policies on these industrial facilities and communities?
- 2. How can we mitigate leakage risk while still meeting the state's emission limits?
- 3. Any other thoughts about EITEs and the report to the Legislature?





Preliminary environmental justice evaluation

Environmental justice considerations for EITEs

- EITEs can release harmful pollutants that affect local air quality
- Allocation policy may influence pace of greenhouse gas emission reductions
- Allocation policy may limit auction revenues
- EITE policy decisions could impact local jobs
- Some EITEs are located within or nearby Tribal Reservations and overburdened communities



CCA environmental justice requirements related to EITEs

- Ecology must consider air quality in overburdened communities when making decisions on petitions for EITE designation under <u>WAC-173-446A</u>
- Newly constructed EITE facilities must mitigate impact on particle pollution in overburdened communities: <u>RCW 70A.65.020(3)</u>
- Offsets use can be restricted for EITE facilities that contribute substantively to cumulative air pollution in overburdened communities

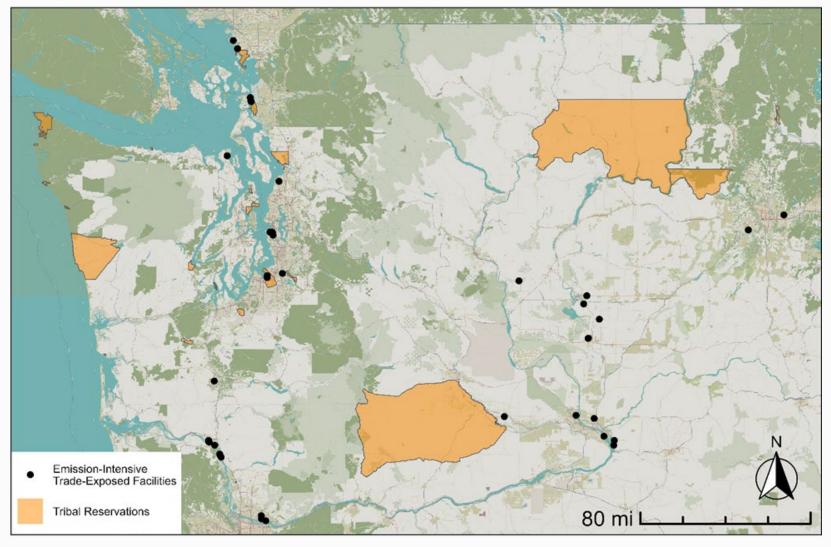


Methodology for preliminary environmental justice evaluation

- Tribal outreach: shared information with federally recognized Tribes and conducted targeted outreach with Tribes located near EITEs
- Communities of focus: identified overburdened communities and vulnerable populations near EITE facilities to prioritize outreach efforts
- Engagement efforts: invited Tribes and communities to ask questions and share feedback at a variety of meetings and forums
- Data analytics: reviewed data to understand how EITE facilities could affect air quality, health, jobs, and local economies in these communities

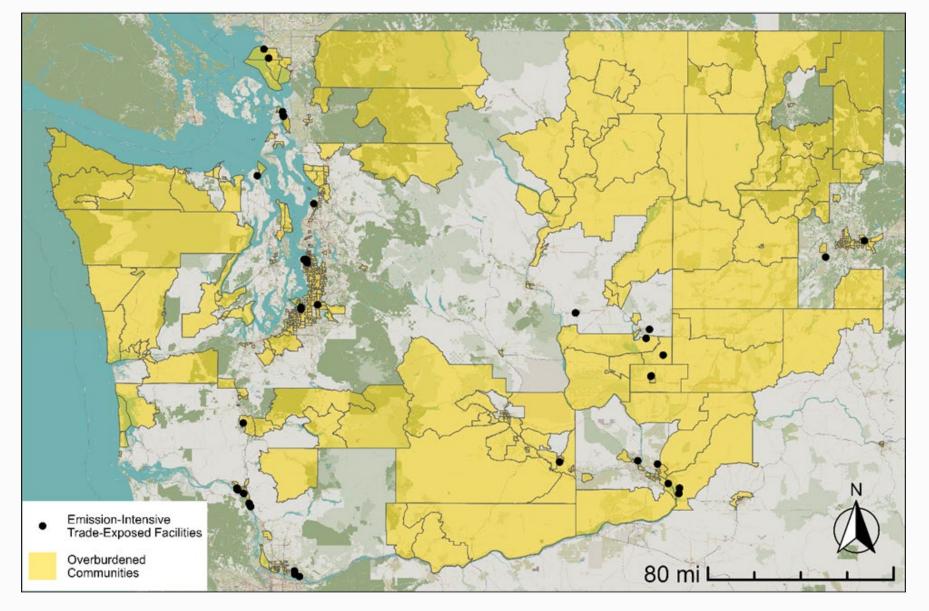


EITEs near Tribal Reservations



| Tribal Reservation | EITE Facilities within 15 miles |
|----------------------------|--|
| Puyallup Reservation | Georgia-Pacific Gypsum U.S. Oil & Refining Co. Boeing Company- Auburn |
| Swinomish Reservation | HF Sinclair Puget Sound Refinery Marathon Anacortes Refinery Air Liquide Hydrogen Plant Matheson-Anacortes |
| Lummi Reservation | BP Cherry Point Refinery Phillips 66 Ferndale Refinery |
| Yakima Reservation | Dairygold-Sunnyside |
| Muckleshoot Reservation | Boeing Company- Auburn U.S. Oil & Refining Co Georgia-Pacific Gypsum |
| Tulalip Reservation | Boeing Commercial Airplanes |

EITEs near Overburdened Communities (OBCs)



- 20 EITEs located
 within census
 tracks identified
 as OBCs based on
 Washington
 Environmental
 Health Disparities
 Map
- 10 EITEs located in OBCs identified by Ecology as highly impacted by air pollution

Air pollution impacts

- EITEs were responsible for 14% of total emissions covered under the Cap-and-Invest Program
- Greenhouse gas emissions from any CCA covered entities most strongly correlated with carbon monoxide, nitrous oxides, and sulfur dioxide
- EITEs accounted for 20.9% of sulfur dioxide emissions and 8.6% of nitrous oxide emissions statewide
- Largest contributors to air pollution in WA are Particulate matter 2.5 and 10
 - EITEs contribute 0.8% and 0.4% respectively (main sources include wildfires, wood burning, road dust)

| Pollutant | EITE total (tons) | State total (tons) | EITE % of state |
|----------------------------------|----------------------|-----------------------|-----------------|
| Carbon monoxide | 7,108 | 1,446,62 2 | 0.5% |
| Ammonia | 268 | 36,022 | 0.7% |
| Nitrous oxides | 12,483 | 145,209 | 8.6% |
| Particulate matter 10 | 1,468 | 352,868 | 0.4% |
| Particulate matter 2.5 | 1,191 | 145,444 | 0.8% |
| Sulfur dioxide | 2,657 | 12,716 | 20.9% |
| Volatile organic compounds | 4,494 | 349,882 | 1.3% |

Source: Statewide 2022 CAP emissions data from ERG report

Health impacts based on CO-Benefits Risk Assessment (COBRA)

ERG used EPA's <u>COBRA</u> to assess changes in air pollution

Scenario: 6% reduction in emission from criteria air pollutants from EITEs in 2034

Findings for 2034

- The associated value of health benefits is estimated to be between \$34.4 to \$50.2 million.
- King County would have the greatest health benefits from the reduction in criteria air pollutant emissions, based on the high population in the county
- Chart shows other health outcome benefits

| Health Outcomes | Source County- Total Avoided Incidence | Statewide- Total Avoided Incidence |
|---------------------------------|---|---------------------------------------|
| Total mortality (low estimate) | 0.3 | 1.6 |
| Total mortality (high estimate) | 0.4 | 2.4 |
| Total asthma symptoms | 155.7 | 1,049.8 |
| Total asthma onset | 0.9 | 6.3 |
| Total emergency room visits | 0.4 | 2.5 |
| Total hospital admittance | 0.1 | 0.7 |
| Total onset | 6.3 | 43.2 |
| Minor restricted activity days | 101.0 | 542.9 |
| Work loss days | 66.9 | 92.0 |
| School loss days | 17.1 | 492.7 |

Source: County and Statewide Avoided Incidence by Health Outcome in 2034 from ERG report

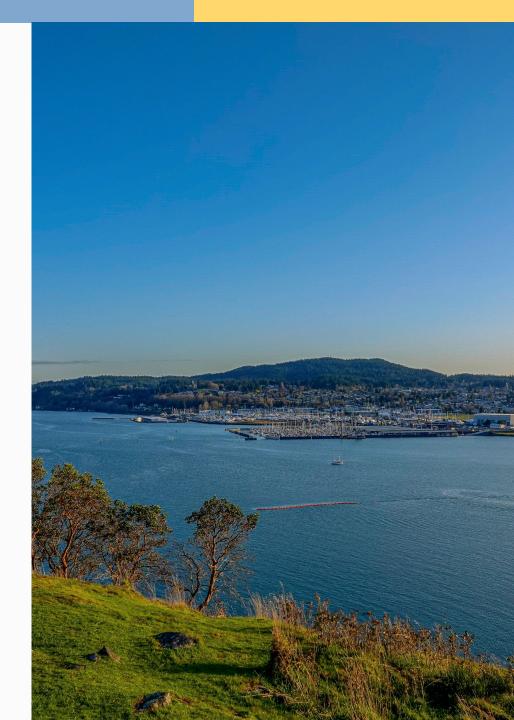
Current economic impacts

ERG used IMPLAN, an Input-Output economic impacts analysis software, to understand the current economic contribution of EITEs in Washington

Key Findings

- EITE industrial sectors contribute to Washington economy (direct, indirect, induced)
 - \$73 billion output (revenue)
 - 85,000 jobs (full time, part time and seasonal employment)
 - \$5 billion in tax revenues

Further information on county-level impacts is provided in the ERG report.

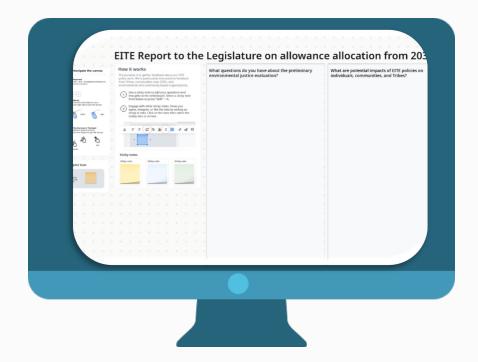




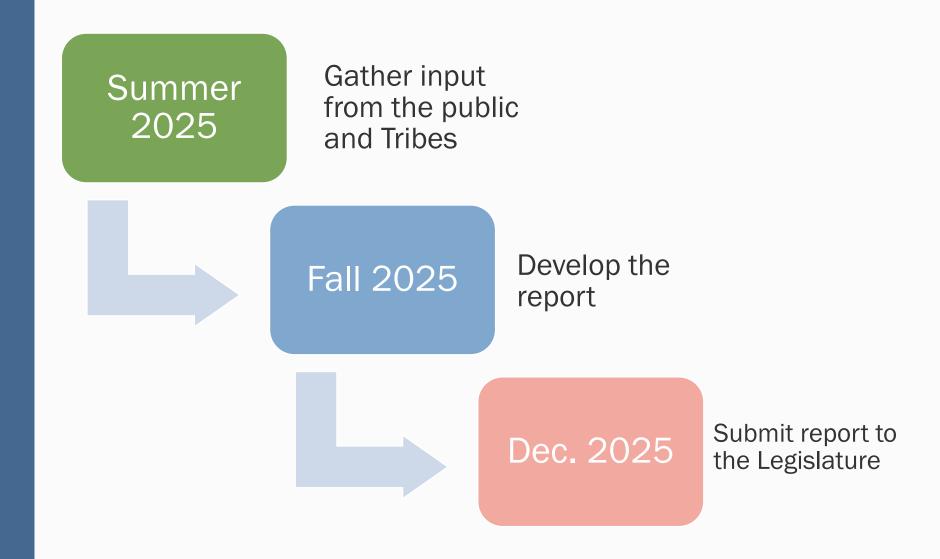
Questions on the preliminary environmental justice evaluation

Whiteboard activity

- 1. What questions do you have about the preliminary environmental justice evaluation?
- 2. What are potential impacts of EITE policies on individuals, communities, and Tribes?
- 3. How can we effectively consider environmental justice impacts as we develop the report and continue further policy work?
- 4. Any other thoughts about EITEs and environmental justice considerations?



Next steps

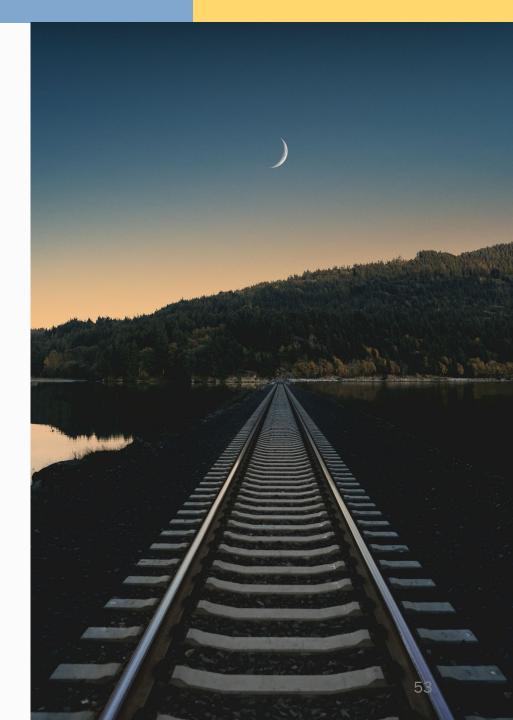


Provide comments

Submit written comments by Sept. 3

• https://ecology.commentinput.com/?id=rapTt
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Ecology will meet with Tribes, communities, and environmental organizations, and community members



Other CCA engagement opportunities

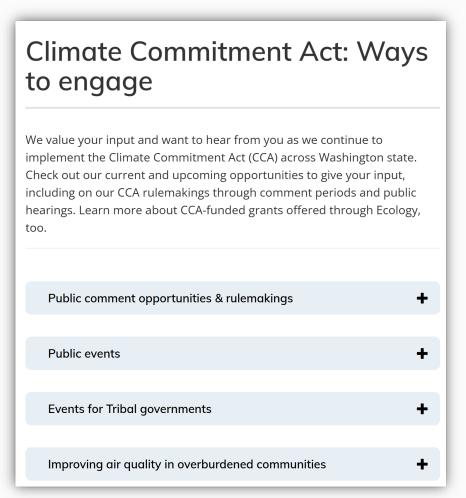
Public events

- Cap-and-Invest Program Updates and Linkage rulemaking public meeting – Aug. 7
- Cap-and-Invest community forum on rulemakings and linkage – Aug. 13

Comment opportunities

- U.S. Forest Offsets rulemaking
- Air Quality in Overburdened Communities Highly Impacted by Air Pollution rulemaking

More details at <u>ecology.wa.gov/CCA-engage</u>. For updates on public events, sign up for the <u>CCA email list</u>.







Thank you!

If you have additional questions or comments, please share via our <u>electronic</u> comment <u>platform</u> or email.

Adrian Young
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Stay updated: sign-up for **EITE Industries email list**.