



EITE Policy Advisory Group

Meeting 2: December 12, 2024

Ecology staff introductions

- Jihan Grettenberger Facilitator
- Adrian Young Cap-and-Invest Industrial Policy Lead
- Andrew Hayes Cap-and-Invest Policy Section Manager





Meeting reminders

- Meetings are open to the public and recorded
- Advisory Group members will appear as "Panelists" in the Zoom meeting
- Members of the public will appear as "Attendees"
- Attendees may unmute and provide comment in the public comment portion of the meeting
- Meeting materials and summary notes will be published on the <u>Advisory Group webpage</u>

Purpose of EITE Policy Advisory Group (PAG)

- Composed of 10 members representing covered entities within Cap-and-Invest Program and other interested parties.
 + 2 members of EITE Industries Advisory Group
- Provide input on a report to the Legislature related to the allocation of no-cost allowances to EITEs from 2035 to 2050.
- Ecology will use input to inform its report to the legislature, in tandem with input from other interested parties.
- Further information available on Ecology's <u>website</u>.





Timeline: report and advisory groups

Phase 1: Aug-Dec 2024

Collect information, discuss technical issues, and identify factors affecting EITE allocation & decarbonization

EITE Industries AG

EITE Industry & Facility perspective

EITE Policy AG

Program & Statewide perspective

Break Mar–Aug 2025

Discuss and assess policy and technical considerations

Discuss draft policy recommendations for EITE allocation 2035-2050

EITE Industries AG

EITE Policy AG

Phase 3: Sep-Nov 2025

Ecology prepares final report for legislature

Report submitted to legislative committees

Other engagement opportunities: Tribes, EJ Council, overburdened communities

Agenda – Meeting #2

- Background and context: EITE allocation
 approach in WA
- California Air Resources Board: Industrial Allocation under Cap-and-Trade
- Policy objectives of the CCA and interface with EITE allocation, and preliminary EJ assessment
- Open discussion: Member topics/questions
- Discussion and next Steps for Phase 2
- Public comment opportunity





EITE Allowance Allocation in WA

EITE allocation methodology

Two methods for allocating no cost allowances to EITEs



Note: 'Carbon-intensity baseline' based on EITE facility's average covered emissions and production during 2015-2019 while 'Mass-based baseline' based on EITE facility's average covered emissions during 2015-2019. Some exceptions may apply.

Reduction schedule and adjustments

- Reduction schedule not defined in CCA:
 - Language implies intent is to reflect the technological and economic feasibility of EITEs achieving emission reductions
- Benchmark applied uniformly to all EITEs
- Different from percentage reductions to Cap and Invest annual program budget (<u>WAC 173-446-210</u>)
- EITEs can request upwards adjustment ahead of next compliance period as per <u>WAC 173-446-220(2)(d)(ii)</u>



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Years	Reduction	Program
	schedule for	allowance budget
	EITE allocation	change*
2023-	100% of	7% annual
2026	baseline	reduction
	emissions	
2027-	97% of	7% annual
2030	baseline	reduction
	emissions	
2031-	94% of	1.8% annual
2034	baseline	reduction
	emissions	
2035-	Not specified in	1.8% annual
2050	CCA (default is	reduction (2035-
	94%)	2042) then 2.6%
		(2043-2050)

*Reductions from total program baseline and adjustments as per WAC <u>173-446-200</u>

CCA and leakage risk

- Legislature designated certain industrial activities as EITE in CCA
- Ecology established objective criteria for determining 'emissions intensity' and 'trade-exposure' in <u>WAC 173-446A</u>
 - Proxies for measuring leakage risk
 - Only applicable to industrial activities not listed in CCA
- Ecology only required to consider leakage risk when making determinations on:
 - Petitions for EITE designation under WAC 173-446A
 - Requests for adjustment to reduction schedule for individual EITEs



WAC 173-446A and leakage risk

- Rule established criteria for determining 'emissions intensity' (EI) and 'trade exposure' (TE) of WA manufacturers based on NAICS code data
- EI and TE are considered proxies for assessing leakage risk (not explicitly stated in Rule or CCA)

Definition 'emissions-intensive'

A manufacturing facility with average 'emission intensity' >25,000 MT



Definition 'trade-exposed'

A facility with a NAICS code with 'trade share' greater than or equal to 15%

Trade share = Avg. Imports + Avg. Exports

Avg. Shipments + Avg. Imports



Questions?



Presentation: California Air Resources Board

California Cap-and-Trade Program Industrial Allocation

CALIFORNIA AIR RESOURCES BOARD DECEMBER 12, 2024



Overview: Industrial Facilities in the Cap-and-Trade Program

- Covered industrial facilities must meet all requirements of the Mandatory Reporting Regulation and Cap-and-Trade Program
 - Reporting and verification of emissions and production
 - Annual and triennial compliance obligation
- Most covered industrial facilities are eligible free allocation
- Purpose of industrial allocation
 - Minimize emissions leakage, i.e. emissions reductions in-state that are offset by increased emissions out-of-state
 - Preserves incentives to maintain efficient production within California

Cap-and-Trade Allowance Budgets



CALIFORNIA AIR RESOURCES BOARD

Allowance Allocation as a Percentage of Emissions for a Hypothetical Industrial Facility

- Covered industrial facilities are allocated to minimize leakage risk
- Allowance allocation includes a cap adjustment factor that declines at the same rate of our allowance budgets (~4% annually from 2020-2030)
- Average facility receives 90% of emissions in free allocation in 2013, which ramps down at the cap adjustment factor



Industrial Allocation

Sector	Number of Facilities
Petroleum Refining and Hydrogen Production	23
Crude Petroleum and Natural Gas Extraction	23
Cement, Lime, Gypsum, and Clay Product Manufacturing	12
Fruit and Vegetable Canning	13
Other Food Manufacturing	12
Dairy Product Manufacturing	8
Glass Manufacturing	8
Metal Processing and Manufacturing	6
Chemical, Biological, and Pharmaceutical Manufacturing	8
Misc. Industrial Facilities, Legacy Contract Generators, and Waste-to-Energy Facilities	18

Industrial Allocation: Output-Based Allocation



Industrial Allocation: Product Benchmarks

- Benchmarks represent the sector-wide emissions efficiency per unit of production
- Benchmarks are set to reward highly-efficient, low-emitting facilities within each sector
- Benchmarks are set at either 90% of average efficiency or the "best-in-class" facility (e.g., the most efficient facility in the sector)
 - Ensures that at least one facility in each sector achieves the benchmark

Industrial Benchmarks (abridged)

NAICS Sector Definition	NAICS code	Activity	Benchmark	Benchmark Units
Paperboard Mills	322130	Recycled Boxboard Manufacturing	0.516	Allowances / Air Dried Short Ton of Recycled Boxboard
Paperboard Mills	322130	Recycled Medium (Fluting) Manufacturing	0.392	Allowances / Air Dried Short Ton of Recycled Medium
Petroleum Refineries	324110	Petroleum Refining	3.89	Allowances / Complexity Weighted Barrel
Flat Glass Manufacturing	327211	Flat glass Manufacturing	0.495	Allowances / Short Ton of Flat Glass Pulled
Cement Manufacturing	327310	Cement Manufacturing	0.742	Allowances / Short ton of adjusted clinker and mineral additives produced
Iron and Steel Mills	331111	Steel Production Using an Electric Arc Furnace	0.170	Allowances / Short ton of Steel produced using EAF

California Dairy Benchmark

 Example sector where benchmarks is set at 90% * weighted average facility emissions intensity



California Cement Benchmark



Multiple Benchmarks

Sectors may have multiple products and benchmarks. Example Dairy sector



Product-Based Allocation Example

- 2024 Allowance cement allocation
- Distributed by October 24, 2023
- Based on 2022 reported and verified production data



Product-based Allocation True-up

- Staff includes provisions to provide true-up to include an adjustment factor to handle changes in production, changes in benchmark or other factors, and to supply new entrant facility with allocation not previously provided
- Total Allocation = Initial Allocation + True-up
- 2024 Allocation Example which trues up 2022 allocation



Cap-and-Trade Community Investments

- Cap-and-Trade auction proceeds directed to benefit Californians
 - \$31.2B in auction proceeds to California Climate Investments
 - 105,922 Tons estimated criteria air pollutants reductions
 - 109.2 MMTCO2e estimated GHG reductions
 - 578,568 individual projects implemented
 - Funding for industrial decarbonization
 - Industrial Decarbonization and Improvement of Grid Operations (\$61 M)
 - Food Production Incentive Program (\$118 M)



Questions

Cap-and-Trade Program Website:

https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program

Mandatory Reporting Regulation Website:

https://ww2.arb.ca.gov/our-work/programs/mandatory-greenhouse-gas-emissions-reporting



Cap-and-Invest Program

Policy objectives of the CCA and interface with EITE allocation

Policy objectives of CCA: Legislative intent

- Cap-and-Invest Program intended to work alongside other climate policies to help Washington achieve its statewide greenhouse gas emissions limits
- Legislature expressed intent to recognize special nature of EITEs alongside other policy objectives in the CCA (<u>RCW 70A.65.005</u>)
- Ecology considering how these policy objectives can inform the design and review of alternative approaches to EITE allowance allocation for 2035-2050



Legislative intent: EITE allocation

RCW 70A.65.005(6)

- "...create climate policy that recognizes the special nature of emissionsintensive, trade-exposed industries by minimizing leakage and increased lifecycle emissions associated with product imports."
- "...encourage these [EITE] industries to continue to innovate, find new ways to be more energy efficient, use lower carbon products, and be positioned to be global leaders in a low carbon economy..."

RCW 70A.65.070(5)

• "...promote a growing and sustainable economy and to avoid leakage of emissions from manufacturing to other jurisdictions."

Leakage definition in CCA

RCW 70A.65.010(43)

"Leakage" means a reduction in emissions of greenhouse gases within the state that is offset by a **directly attributable** increase in greenhouse gas emissions outside the state and outside the geography of another jurisdiction with **a linkage agreement with Washington**.



Legislative intent: other examples

RCW 70A.65.005(7)

- ...identify overburdened communities where the highest concentrations of criteria pollutants occur, determine the sources of those emissions and pollutants, and pursue significant reductions of emissions and pollutants in those communities.
- ...prevent job loss and provide protective measures if workers are adversely impacted by the transition to a clean energy economy...
- ...contribute to a healthy environment for all of Washington's communities.
 <u>RCW 70A.65.080(9)(a)</u>
- ...see innovative new businesses locate and grow in Washington that contribute to Washington's prosperity and environmental objectives.

Policy objectives: summary

- Achieve statewide greenhouse gas emissions limits
- Avoid leakage and increased life-cycle emissions from imports
- Encourage innovation, energy efficiency, use of lower carbon products by EITEs
- Promote a growing and sustainable
 / low carbon economy
- Enable innovative new businesses
- Contribute to a healthy environment for all communities

- Prevent job loss and provide protective measures for workers adversely impacted by the clean energy transition
- Pursue significant reductions of emissions and pollutants in overburdened communities

Discussion Questions

- Are all these policy objectives relevant to EITE allowance allocation? Are there any missing?
- How does (or doesn't) the current EITE allocation approach support these policy objectives?
- What data or methods could be used to assess policy objectives/impacts of alternative approaches to EITE allocation for 2035-2050?

Example framework for assessing effectiveness of policy options

CCA policy objective	Potential assessment questions (examples)	Potential data or methods for assessment (examples)
Achieve statewide greenhouse gas emissions limits	How does the policy option support achievement of statewide limits?	Modeling of anticipated emissions reductions from EITEs and other covered entities
Avoid/minimize leakage and increased life-cycle emissions from imports	How does the policy option avoid or minimize leakage and increased life-cycle emissions?	Assessment of leakage risk and how it might change over time. Data on carbon intensity of imports
Pursue significant reductions of emissions and pollutants in overburdened communities	How does EITE allocation affect air quality in overburdened communities?	Data on relative contribution of EITEs to air pollution in communities compared to other sources and how it might change over time
Etc.		

Note: other criteria may also be relevant to assessing alternative policy options, such as cost, equity, administrative complexity, and technical feasibility.

Preliminary Environmental Justice Assessment

- Identify overburdened communities and vulnerable populations impacted by greenhouse emissions from EITEs and potential harms and benefits
- 28 active EITEs located within or nearby Tribal reservations or overburdened communities*
- For the 16 overburdened communities identified by Ecology as highly impacted by air pollution:
 - 14 active EITE facilities located within/nearby and account for ~26% of total reported greenhouse gas emissions from stationary sources and estimated mobile sources (see Ecology 2023 Report)

*Includes the 16 communities <u>identified by Ecology</u> as overburdened and highly impacted by air pollution and census tracts ranked 9 or 10 in <u>Environmental Health Disparities Map</u>

Active EITEs as of December 2024

	Within	Nearby
Tribal reservation	2	6
Overburdened communities*	10	10
Major sources of air pollution	7	9
Total reported EITE GHG emissions 2022	1,719,821 (MT CO2e)	9,779,988 (MT CO2e)

Note: Total reported emissions from all active EITEs in 2022 was 13,010,360 MT CO2e, excludes facilities currently closed/curtailed

Any comments or questions on this preliminary assessment?



Questions?



Open Discussion

Questions or Topics Proposed by Members



Discussion and next steps

Work program for Phase 2



Ecology's report will focus on:

- Best practices for avoiding 'leakage' of emissions and economic harm to businesses
- ✓ 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
- Implications for environmental justice outcomes, including local air quality impacts, and statewide emissions limits
- ✓ Potential impacts on Cap-and-Invest revenues

EITE PAG: Work Program Phase 1

Meeting 1 Nov. 13rd Background and context

- Policy Advisory Group purpose and expectations
- Background and context for EITE allocation
- Report to the Legislature on EITE allocation 2035-2050
- EITEs in Washington: emissions profile and related information

Meeting 2: Dec. 12th Policy objectives of CCA and interface with EITE allocation

- Policy objectives of the CCA and interface with EITE allocation in the Cap-and-Invest Program
- Approach to EITE allocation in California's Cap and Trade
- Discuss topics and issues to be considered in Phase 2

EITE PAG: Work Program Phase 2

Key discussion topics

- Findings from Ecology's review of best practice policies for avoiding carbon leakage and economic harm to businesses
- Findings from Ecology's review of alternative methods for developing GHG baselines and benchmarks for EITE facilities
- Findings from Ecology review of alternative methods for allocating no costs allowances to EITEs in 2035-2050
- RMI analysis of industrial decarbonization pathways and investment opportunities
- Preliminary environmental justice assessment of EITE allocation approaches
- Ecology's draft policy recommendations (based on findings of the above reviews and input from advisory groups)

Other topics raised by PAG members:

Availability of clean energy sources for EITEs | Opportunities to expand and to site new facilities | Investment incentives provided by EITE allocation | Sector-specific pathways for EITEs | Linkage considerations | Dept. Commerce work on investment and incentives for decarbonization

Discussion Question

Are there any other topics that members think should be part of the work program in Phase 2?

EITE PAG: Work Program Phase 2

Indicative meeting schedule and topics for 2025

Meeting 1: early/mid March	 Review of best practice policies for avoiding carbon leakage RMI analysis of decarbonization and investment opportunities
Meeting 2: mid/late April	 Review of alternative methods for GHG baselines/benchmarks for EITEs
Meeting 3: early/mid June	Review of alternative methods for EITE allowance allocation for 2035-2050
Meeting 4: mid/late July	 Ecology's draft policy recommendations Preliminary environmental justice assessment

Questions or comments

• Any other feedback or comments related to the report or work program for the advisory group?



Next steps

- This is the final meeting for Phase 1
- Summary notes circulated for feedback
- EITE Industries Advisory Group meeting on Dec. 19, focused on greenhouse gas baselines and benchmarks
- We expect to reconvene working group in March 2025 for Phase 2







Thank you!

If you have additional questions or comments, please send them to:

Adrian Young Cap-and-Invest Industrial Policy Lead CCAEITEIndustries@ecy.wa.gov

Public comment opportunity

Guidelines for providing public comment

- Up to two minutes per person
- Host will unmute you and begin timer
- Please keep the comments related to EITEs and the report to the Legislature
- Ecology will not respond to comments in this meeting
- To submit written comments, use our <u>digital</u> <u>comment platform</u>
- Please use "raise hand" button to indicate that you wish to provide a comment







Thank you!

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