



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

# Clean Fuels Program Rule Chapter 173-424 WAC Stakeholder Meeting

October 6, 2021

Welcome to the  
Clean Fuels Program Rule  
Chapter 173-424 WAC  
Rulemaking Stakeholder Meeting

We will start at 9:30 a.m. PDT.

We will check sound 10 and 5 minutes before start.

# Sound Check

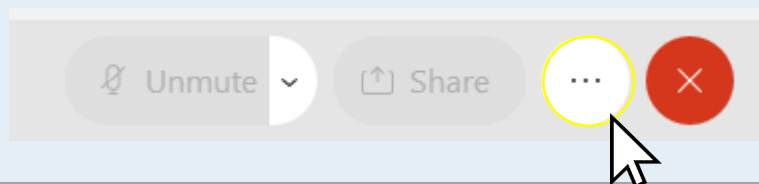
**No sound?** Connect your audio and listen for a sound check before we start.

All attendees are muted.

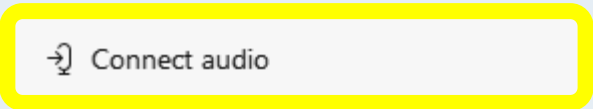
To change your audio connection:



**1** Click on the 'More Options' button at the bottom of your screen.



**2** Select "Connect Audio" button.

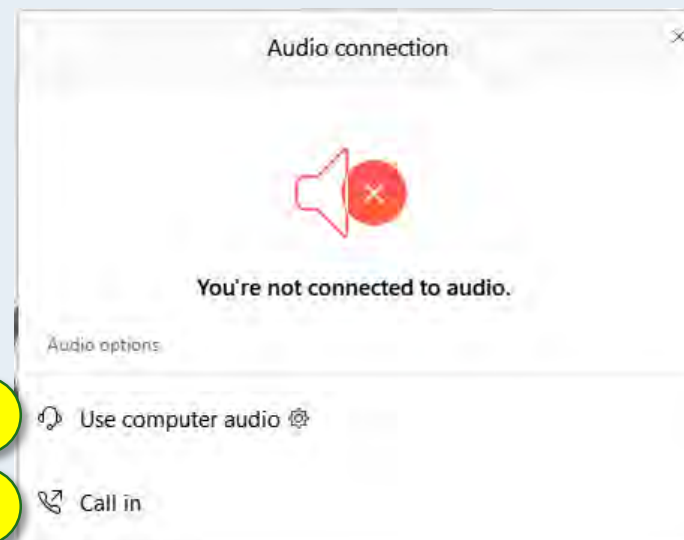


→ Connect audio

**3**

Select Audio Connection

**2**  
Options

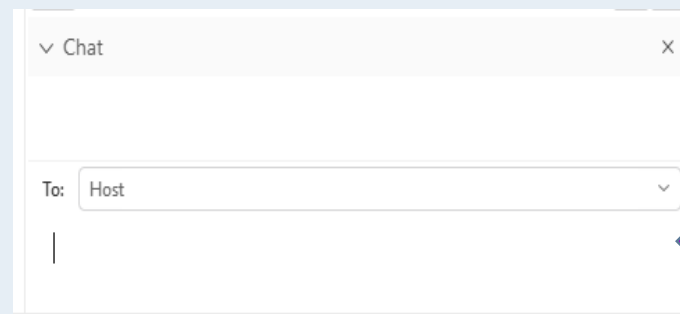
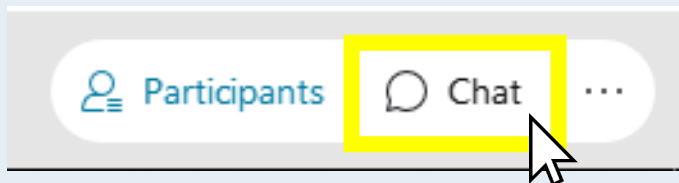


If you select "Call in," the system will provide you with a phone number and entry information.

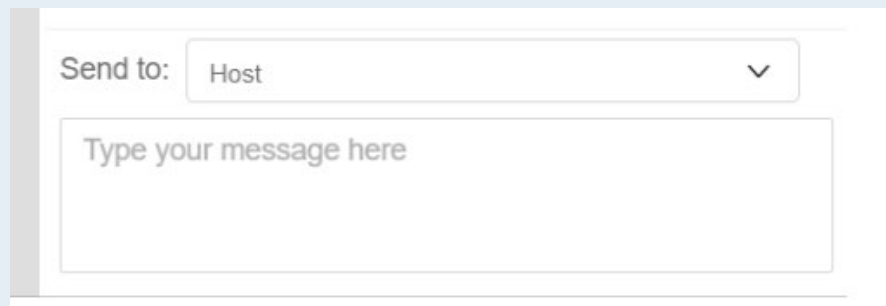
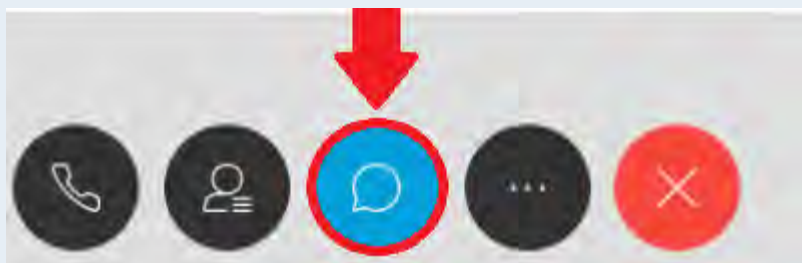
# How To Use the “Chat” Function

Chat with the host for technical problems

**If you are using the WebEx application:**

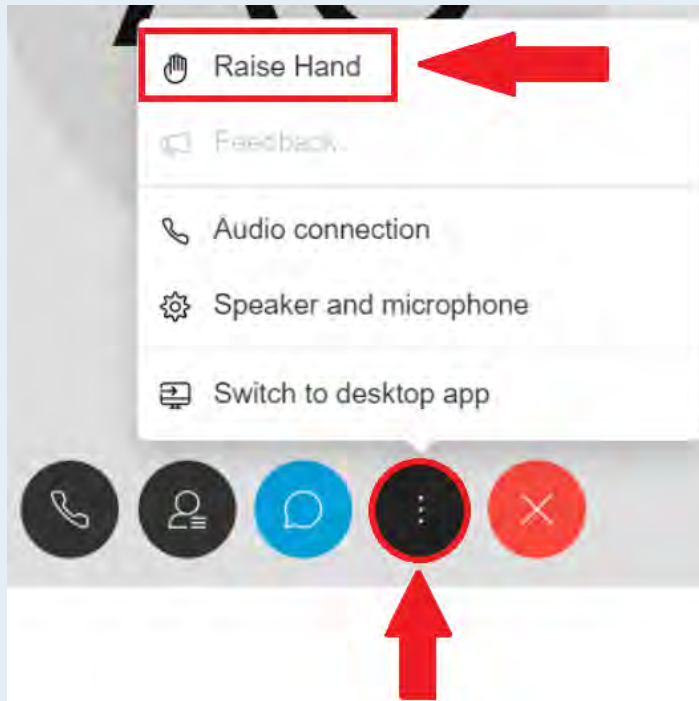


**If you are using the WebEx browser:**

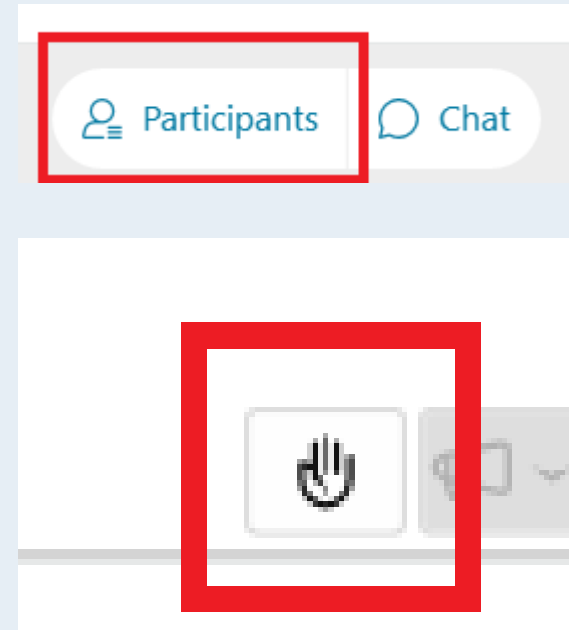


# How To Use the “Raise Hand” Function

## Joined by Browser



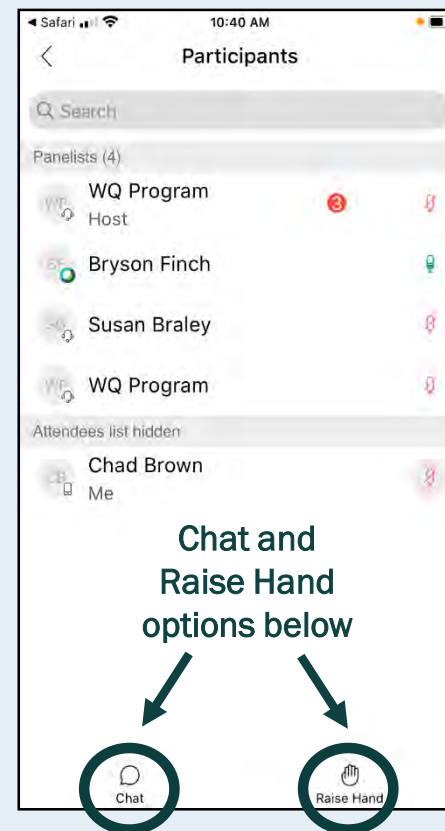
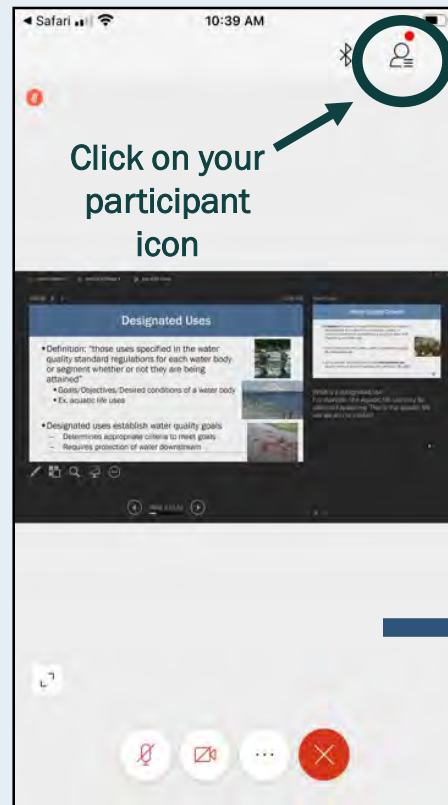
## Joined by Application



## Joined by Phone




# For Those Joining via Phone or Tablet



# How To Participate

## During today's question-and-answer period:

- Participants using computer or mobile app: Use the “Raise Your Hand” button. This button is located in the lower right hand corner of the participant list window. 
- Participants listening in on the phone: Press \*3 on your phone. The system will show you have your hand raised. The host will unmute you at your turn and the system will announce that you are unmuted.

# Start Recording

We will begin recording at this time.





# Ecology Staff

- Margaret Plummer – Host
- Laura Westfall – Co-Host
- Tina Maurer – Co-Host
- Jason Alberich – Rules and Planning Unit Supervisor
- Abbey Brown – Technical Lead
- Joel Creswell – Climate Policy Section
- Debebe Dererie – Rulemaking Lead

# Agenda

- 1 Overview of the rule
- 2 Rulemaking process
- 3 Rulemaking issues
- 4 Stakeholders' comments
- 5 Next steps and wrap up

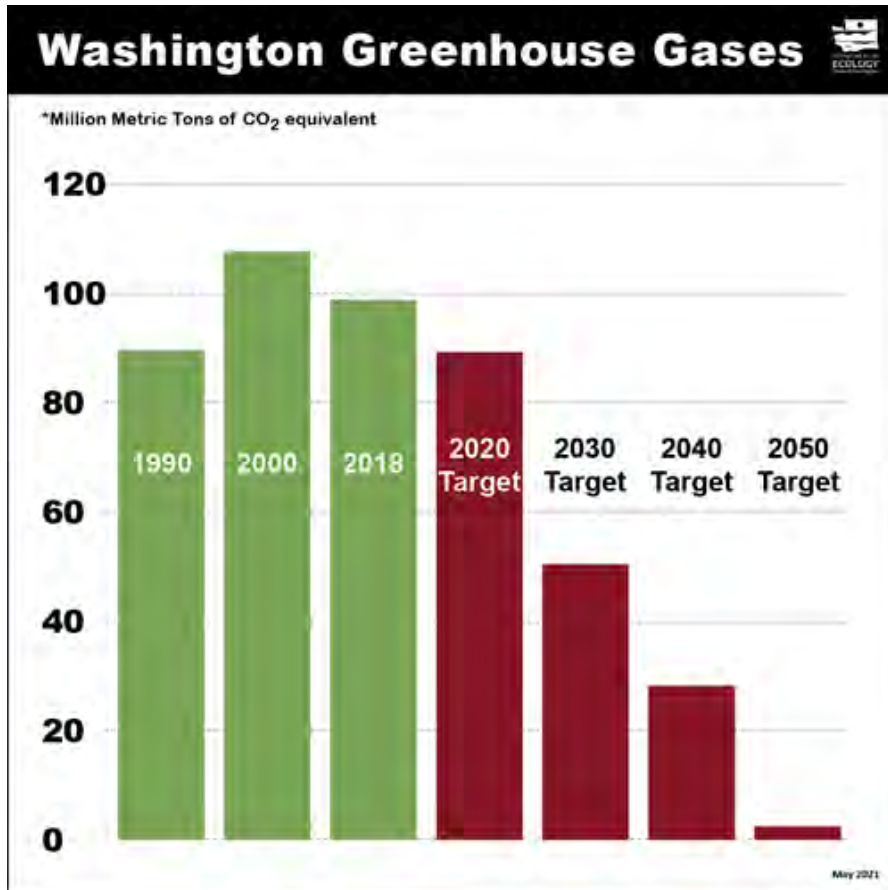
# Clean Fuel Standard



## Overview of Clean Fuels Program Rule

Joel Creswell

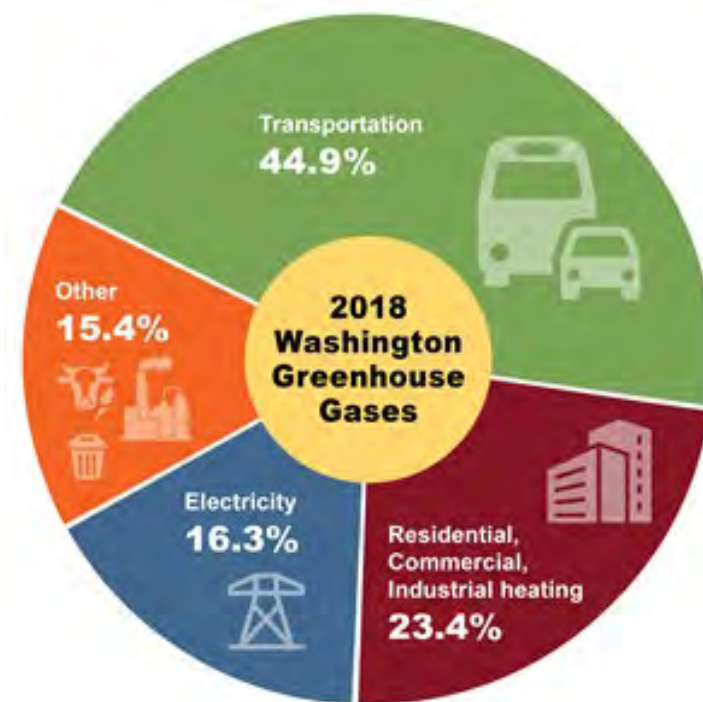
# Washington's Greenhouse Gas Emission Limits



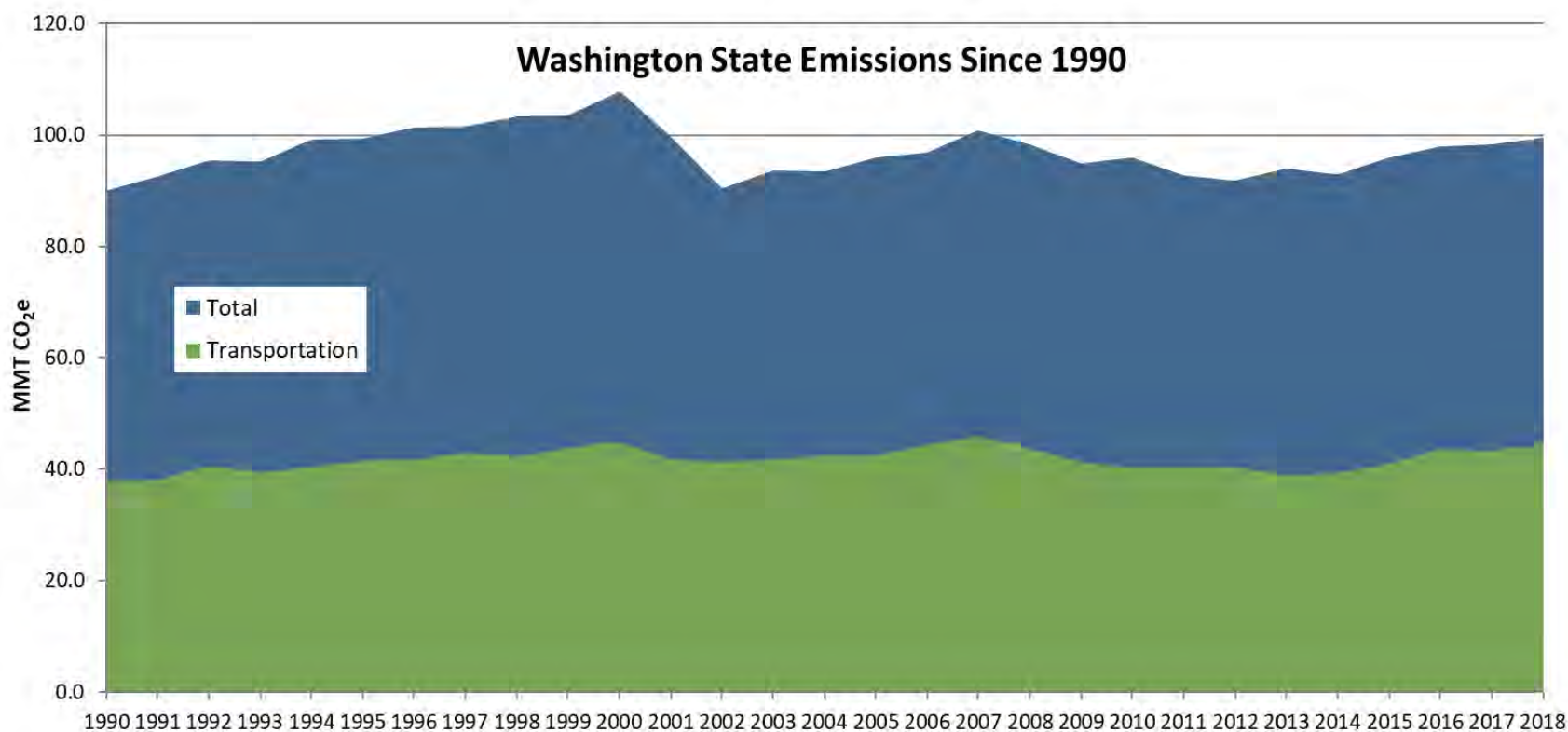
- Washington has science-based statewide GHG limits in statute:
  - 2020: Reach 1990 levels
  - 2030: 45% below 1990 levels
  - 2040: 70% below 1990 levels
  - 2050: 95% below 1990 levels, achieve net zero emissions

# Why a Clean Fuel Standard?

- Transportation is Washington's greatest source of greenhouse gas emissions.
  - Transportation emissions must be reduced to reach state limits.
  - Transportation also a major source of conventional pollutants.
- Clean Fuel Standard will spur economic development and job creation.
- California, Oregon, and British Columbia already have clean fuel standards.



# Historic Transportation Emissions



# A good fit for Washington

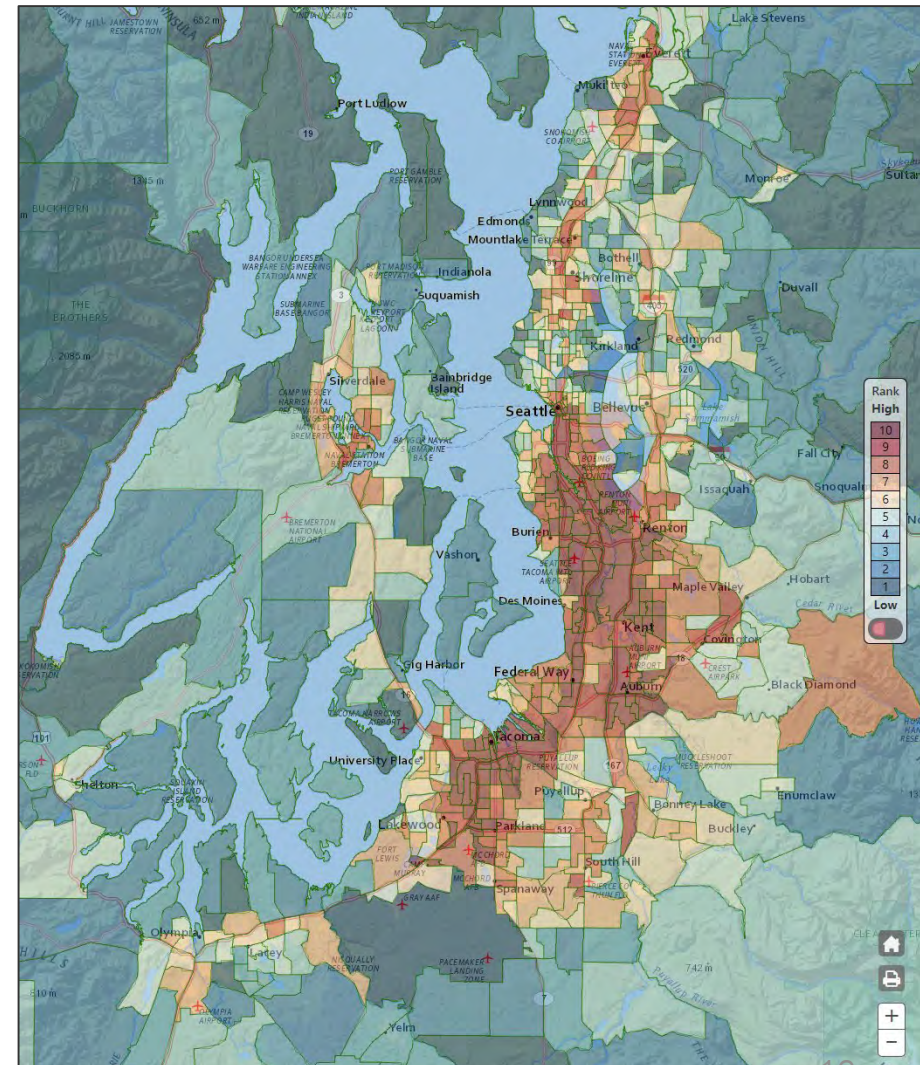
- Washington has almost 7 million registered vehicles, about 0.6% plug-in.
- Ranked 6th in U.S. for plug-in vehicle sales
- Ranked 5th lowest in U.S. for electricity rates
- Clean electric grid: Hydro, nuclear, and wind account for 63% of electricity used in Washington





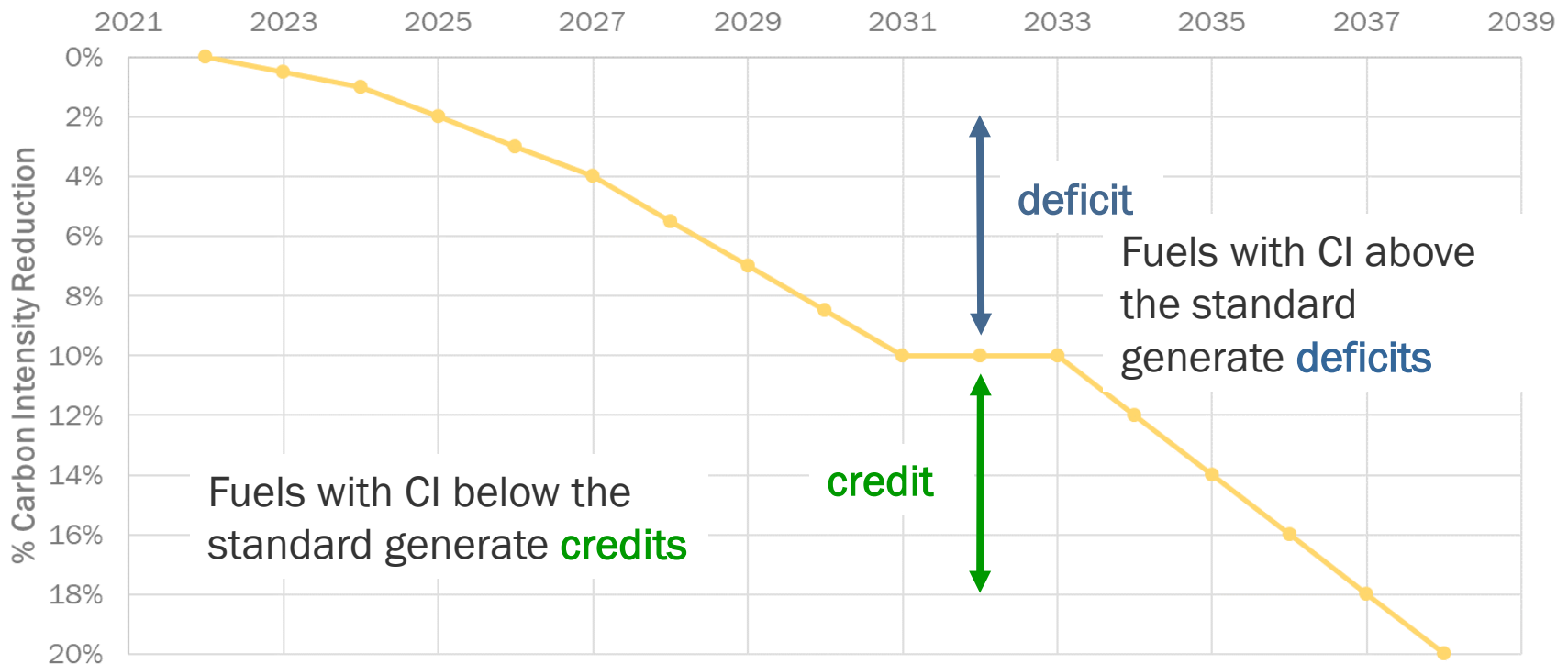
# Benefits Beyond Climate Change

- Communities that bear the greatest burden from transportation emissions stand to receive the greatest benefits from reductions.
- Reducing transportation emissions can improve public health, reduce health disparities.
- HEAL Act and Climate Commitment Act require air quality improvements in overburdened communities.

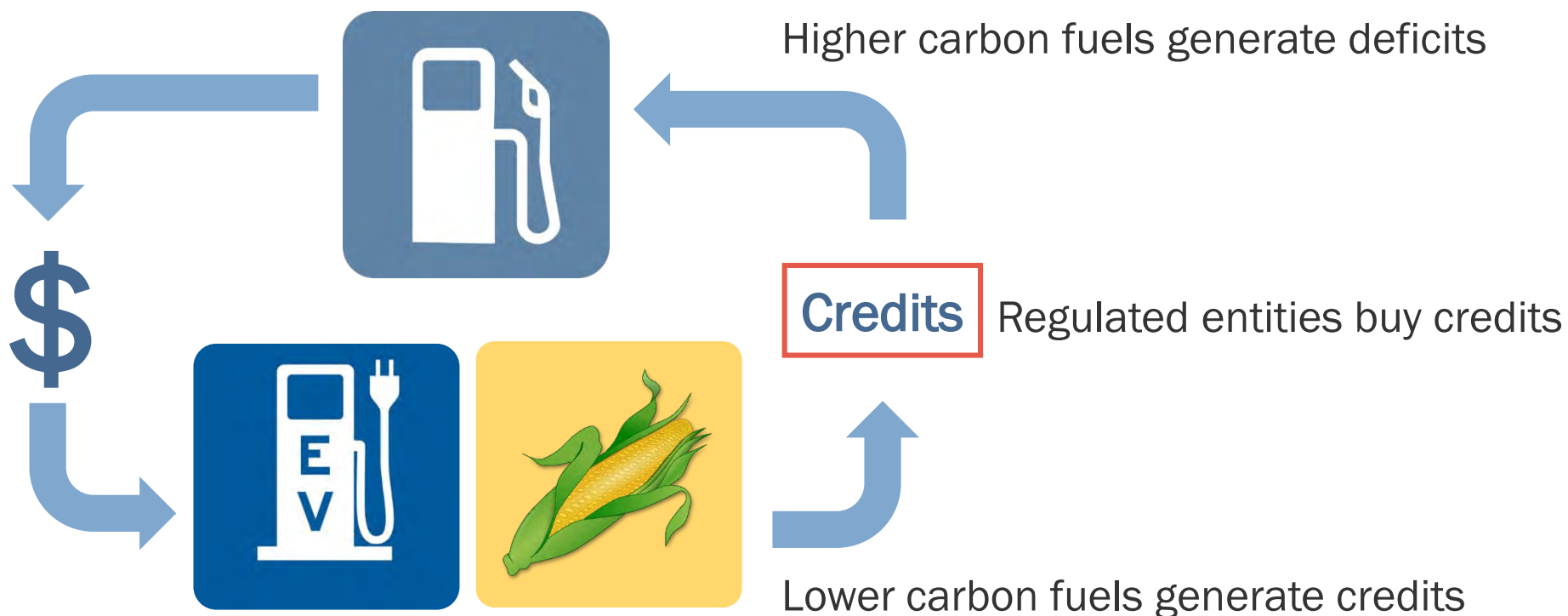




# What is a Clean Fuel Standard?

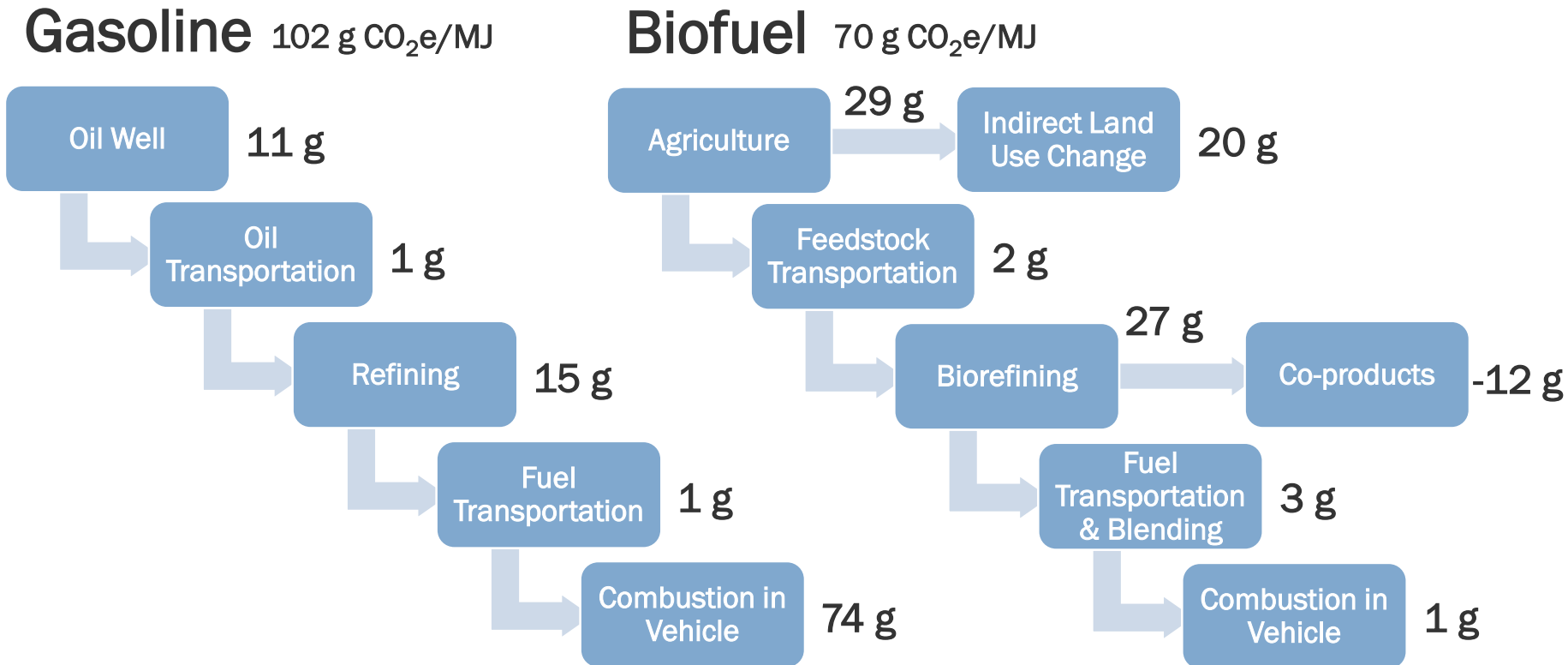


# Market-Based System



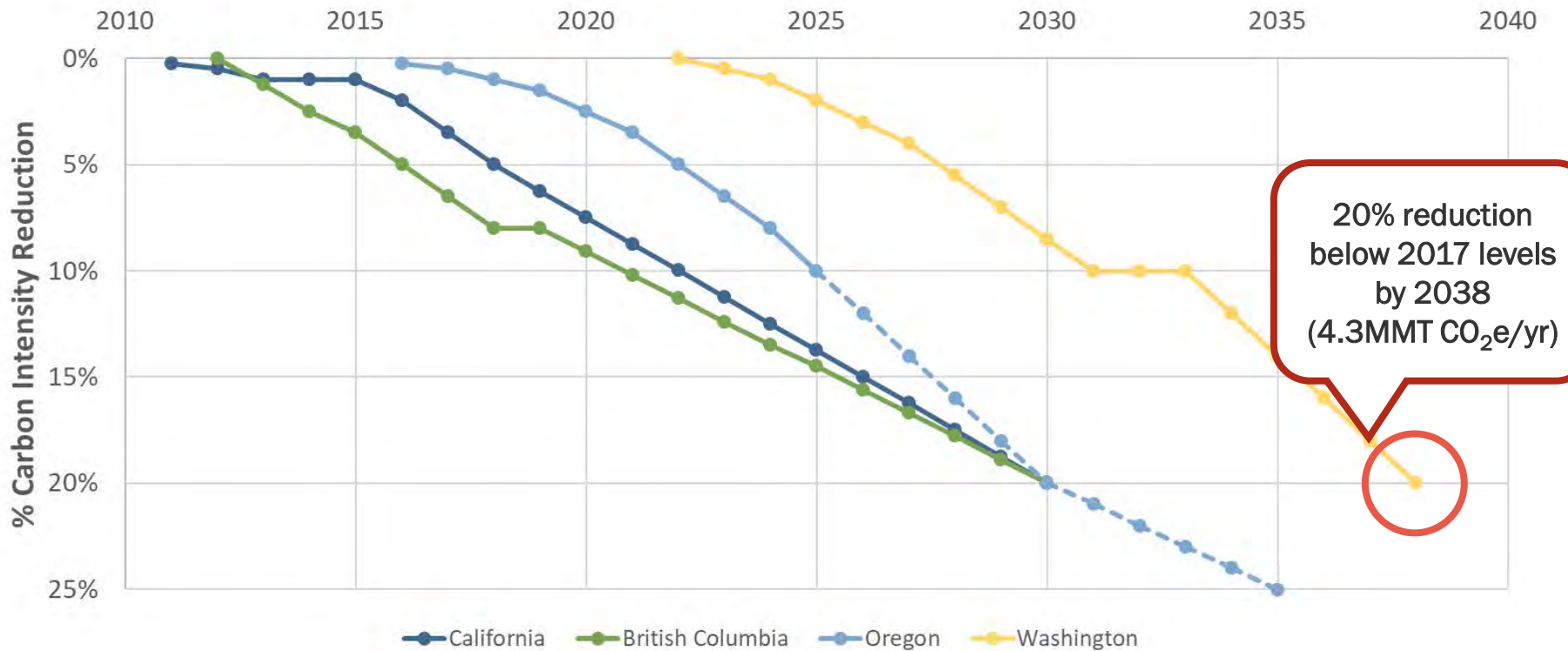
# Fuel Pathway Examples

## Life Cycle Carbon Intensity



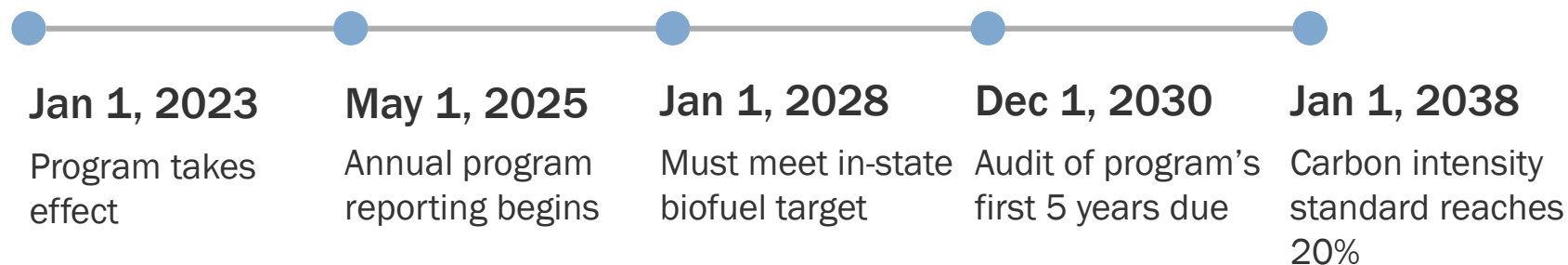
Examples based on CA; not indicative of values in WA

# Washington's Carbon Intensity Reduction



# Clean Fuel Standard Timeline

## Program Milestones



# What is Covered?

## All fuels EXCEPT:

- Fuels used at **low volumes**
- Fuels exported from Washington
- Fuels for aircraft, vessels, and locomotives
- Fuels for military tactical vehicles
- Through Jan. 1, 2028:
  - Off-road special fuels for log transport, agriculture, mining, and timber harvesting operations

# Building Biofuel Capacity in Washington

- By 2028, law requires at least:
  - 60 million gallons/year of new, in-state biofuel facilities be permitted, with at least one 10 million gallon/year facility
  - 15% increase in biofuel production using Washington feedstocks
- Carbon intensity standard can't exceed 10% until requirements are met.

# Cost Containment Measures

- Credit clearance market maximum
  - Maximum price: \$200 in 2018 dollars in 2023
  - Adjusted for inflation thereafter
- Agency must consider credit price cap
- Cost containment mechanisms must:
  - Be harmonized with those in other states
  - Keep credit prices from significantly exceeding other states





# Alternative Credit Generation



- Rules must allow credits for:
  - DC fast chargers and hydrogen refueling stations based on capacity
  - State transportation investments
- Rules may allow credits for:
  - Carbon capture and sequestration
  - Project-based refinery GHG mitigation
  - Smart EV charging at times when grid carbon intensity is low
- Alternative credits may be capped

# Environmental Justice in the Clean Fuel Standard

- Ecology may designate an aggregator to use unclaimed credits to promote transportation electrification.
  - May be used to support overburdened communities
- Electric utilities must invest 30% of credit revenue in transportation electrification in overburdened communities.
  - Encouraged to invest an additional 50% in expanding access to zero emissions transportation for low- and moderate-income customers

# Reporting Requirements

## One-time

- Independent consultant analysis of costs or savings per gallon of gasoline and diesel for each year through 2038
  - Report due to Legislature July 1, 2022

## Annually, for previous year

- Total credit generation and price
- Volumes of each fuel sold
- Independent consultant analysis of costs or savings per gallon of gasoline and diesel

## Monthly, for previous month

- Volume-weighted average credit price

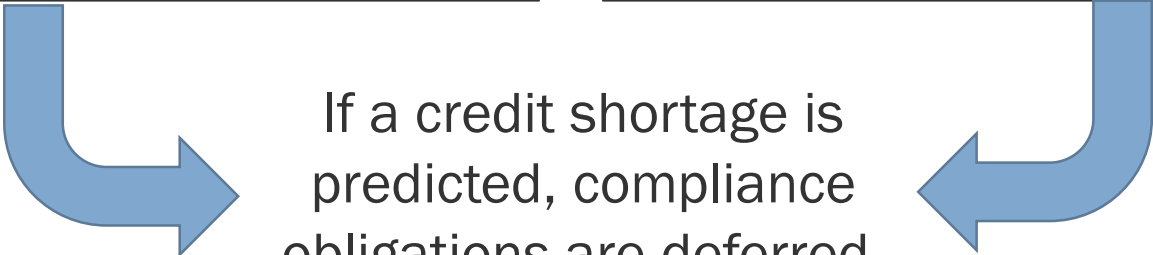
# Emergency and Forecast Deferrals

## Emergency Deferral

- Issued under extreme and unusual circumstances such as:
  - Natural disaster
  - Act of God
  - Significant supply chain disruption

## Forecast Deferral

- State Commerce Department conducts annual fuel supply forecast



If a credit shortage is predicted, compliance obligations are deferred.

# Other Washington-Specific Policies

- Participants may be charged a fee
- Agriculture and forestry stakeholder panel
  - Advise about carbon sequestration crediting
  - Consulted periodically throughout program
- Biennial review of new technologies and credit generation opportunities
  - Conducted by agency
  - Rules updated as needed to maintain stable credit markets



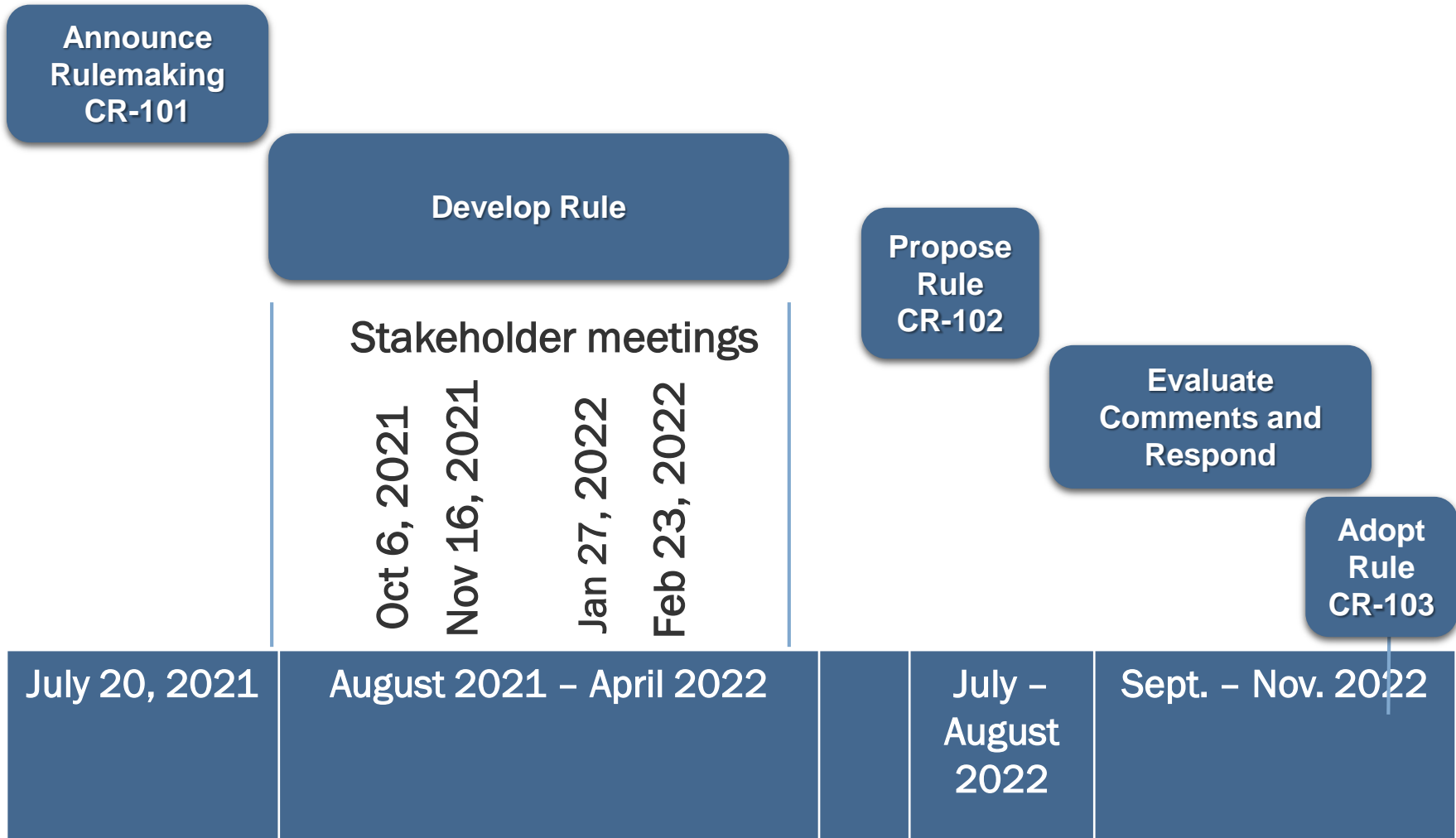
# Rulemaking Process, Stakeholder Engagement, and Timeline



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Debebe Dererie

# Rulemaking Timeline





# Stakeholder Meetings and Comments

- Next stakeholder meetings
  - Nov 16, 2021 (1:30 p.m. – 4:30 p.m.)  
First draft rule language
  - January 27, 2022 (1:30 p.m. – 4:30 p.m.)  
Second draft rule language
  - February 23, 2022 (1:30 p.m. – 4:30 p.m.)
    - Carbon intensity calculation
    - Third draft rule language
- Summary of stakeholder meeting will be posted on the [Clean Fuels Program rulemaking web page](#)<sup>1</sup>
- Provide comments:  
<https://aq.ecology.commentinput.com/?id=DpgZ3>

<sup>1</sup> <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-424-455>



# How to Submit Comments Online

1. Clean Fuels Program Rule (Chapter 173-424 WAC) web page<sup>1</sup>
2. Scroll to “Rule development phase.”
3. Click on “Comment online.”

<sup>1</sup> <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-424-455>

# For More Information

- Rulemaking web page:  
<https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-424-455>
- To join the e-mail notification list:  
<http://listserv.ecology.wa.gov/scripts/wa-ECOLOGY.exe?SUBED1=WA-CLEAN-FUELS-UPDATE&A=1>

# Contacts

- Rulemaking Lead: process, meetings, documents, and timeline:
  - Debebe Dererie  
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- Technical Lead
  - Abbey Brown  
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360-819-0158
- Climate Policy Section Manager
  - Joel Creswell  
joel.Creswell@ecy.wa.gov  
360-972-5035



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# Rulemaking Issues

Abbey Brown, Joel Creswell, and Debebe Dererie

# Overview

- Carbon intensity standard
- Covered transportation fuels
- Fuel exemptions
- Credit generating activities

# Constraints and Principles

- Constraints and Principles
  - Legislative intent
  - Harmonization – Oregon DEQ and CARB rules
  - Timeliness – January 1, 2023 start program implementation
- Legislative intent
  - Reduce GHG emissions
  - Reduce conventional air pollution
  - Spur economic development

# Carbon Intensity (CI) Standard

- Law: RCW 70A.535.020
- 20% CI reduction below 2017 levels by 2038
- Maximum CI reduction in intermediate years, 2023 – 2033
- Conditions for CI reduction beyond 10%
  - 15% net increase in-state liquid biofuel production and the use of feedstock compared to 2022
  - At least a permit for **total biofuel production facilities capacity** increase, after July 1, 2021 = 60 million gallons of biofuel/year
  - At least a permit for **new biofuel production facility capacity** increase, after July 1, 2021 = 10 million gallons of biofuel/year

# Carbon Intensity Standard – Issues

- 2023 – reporting-only year or full compliance year?  
opportunity to become familiar with the reporting requirements and IT system
- Option for 2023
  - Option 1 – 0.5 CI reduction in 2023. Compliance obligation in 2024.
  - Option 2 – 0.5 CI reduction in Quarter 4 of 2023
  - Option 3 – No CI reduction in 2023 and compensate in 2034
  - Option 4 – No CI reduction in 2023 and compensate in 2034-2038
  - Other?



# Carbon Intensity Standard – Alternatives

Year	Alternative Annual CI Reduction Standards, %				
	Law	Option- 1	Option-2	Option-3	Option-4
2023	0.5		0.5 (Q-4)	0	0
2024	0.5	1	0.5	0.5	0.5
2025	1	1	1	1	1
2026	1	1	1	1	1
2027	1	1	1	1	1
2028	1.5	1.5	1.5	1.5	1.5
2029	1.5	1.5	1.5	1.5	1.5
2030	1.5	1.5	1.5	1.5	1.5
2031	1.5	1.5	1.5	1.5	1.5
2032	0	0	0	0	0
2033	0	0	0	0	0
2034	2	2	2	2.5	2.1
2035	2	2	2	2	2.1
2036	2	2	2	2	2.1
2037	2	2	2	2	2.1
2038	2	2	2	2	2.1
<b>Net impact %-year</b>	<b>141.5 (100%)</b>	<b>141.5 (100%)</b>	<b>141.5 (100%)</b>	<b>136 (96.1%)</b>	<b>135 (95.4%)</b>

# Transportation Fuels Subject to Regulation

		CARB	OR DEQ	
Fuels subject to Regulation	Regulated Fuels	Gasoline	Gasoline	Regulated Fuels
		Diesel	Diesel	
		Ethanol and blend 10 to 100	Ethanol	
		biomass-based diesel and blend	Biodiesel	
			Renewable hydrocarbon diesel	
			Blends or constituents of above	
		Any other liquid or non-liquid fuel	Any other liquid or non-liquid fuel	
	Hydrogen	<b>Hydrogen or hydrogen blend</b>	Clean Fuels	
	Fossil CNG, LNG, L-CNG	<b>Fossil CNG, LNG, L-CNG</b>		
	Propane	<b>Fossil LPG, Renewable LPG</b>		
<b>Bio-CNG, bio-LNG, or bio-L-CNG</b>	<b>Bio-CNG, bio-LNG, or bio-L-CNG</b>			
	<b>Electricity</b>			
<b>Opt-in Fuel</b>	<b>Alternative Jet Fuel</b>	<b>Alternative Jet Fuel</b>		

# Exemptions – Fuels and Uses

- Fuels used in volumes below thresholds adopted by Ecology
  - OR DEQ – 360,000 gallons/year
  - CARB – 3,600,000 gallons/year
  - Ecology – 360,000 gallons/year?
- Law: Ecology may **adopt rules to specify the standards** for persons to qualify for the exemptions provided in this section.
  - May align with the implementation of exemptions for similar fuels exempt from Chapter 82.38 RCW, Fuel Tax Act
  - How to qualify for exemption?
- Are additional exemptions necessary in the rule?

# Credit Generating Activities – Section 6

- Carbon capture and sequestration projects
- Investment in production of gaseous and liquid fuels from **non-fossil feedstocks**
- Fueling of battery or fuel cell electric vehicles – **non-electric utility**
- Smart vehicle charging technology – charging when CI is low
- Others?
- Do we need these in the initial rulemaking, January 2023?

# Credit Generators – Refueling Infrastructure

- **Law:** Mechanisms to elect to participate in the clean fuels program for persons associated with the supply chains of transportation fuels that are eligible to generate credits consistent with subsection (3) of this section, **including producers, importers, distributors, users, or retailers of such fuels, and electric vehicle manufacturers**
- Should credit generation be divided (example: base and incremental credits)?
- What should be the criteria for assigning first right for credit generation?
  - Contribution to credible GHG reduction
    - Verifiable GHG reduction
    - Accuracy of measurement
  - Contribution to promote further credible GHG reduction
    - Incentivize clean transportation

# Credit Generators – Refueling Infrastructure

- For electric vehicles and hydrogen refueling infrastructures
  - First credit generating right
  - Measurement accuracy
  - Capacity-based versus performance-based credit
  - Limit/cap for credit generation
  - Revenue spending requirements

# Credit-Generating Activities – DCFC & H<sub>2</sub>

- Setting limits to the capacity-based credit generation
  - Should we limit these credits in this initial rulemaking?
  - If so, what should the limit be?
    - How long should a person be allowed to generate credit per piece of refueling equipment?
    - Do we need to establish an annual program-wide limit for capacity-based credit generation?

# Stakeholder Comments

**Be brief, so everyone has a chance to comment.**



# Next Steps

- Next stakeholder meetings
  - Nov 16, 2021 (1:30 p.m. – 4:30 p.m.)
    - First draft rule language
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