



DEPARTMENT OF
ECOLOGY
State of Washington

Clean Fuels Program Rule Chapter 173-424 WAC Stakeholder Meeting

January 27, 2022

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

We will start at 1:30 p.m. PST.

We will check sound 10 and 5 minutes before start.

Sound Check

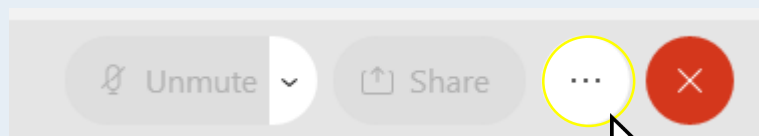
No sound? Connect your audio and listen for a sound check before we start.

All attendees are muted.

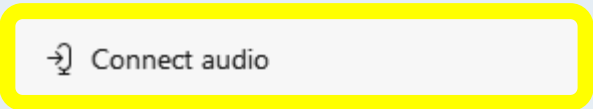
To change your audio connection:



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



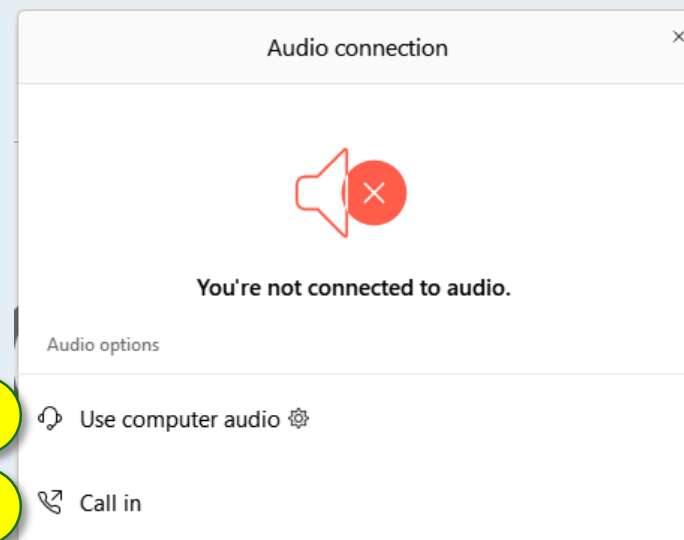
2 Select "Connect Audio" button.



→ Connect audio

3

Select Audio Connection



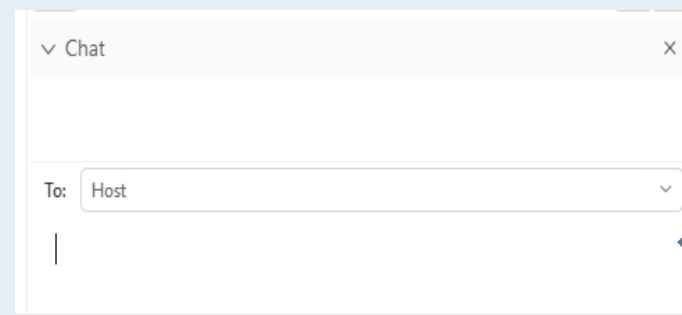
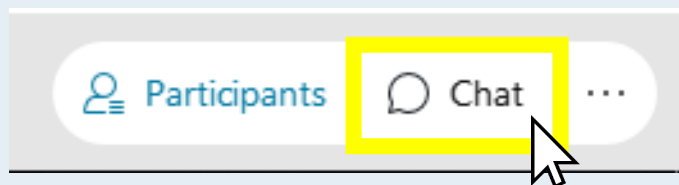
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Options

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

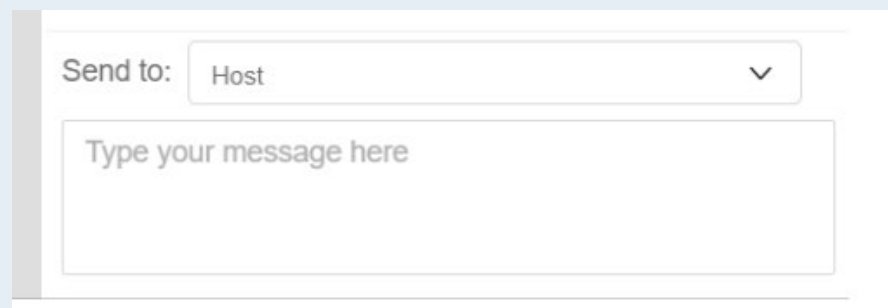
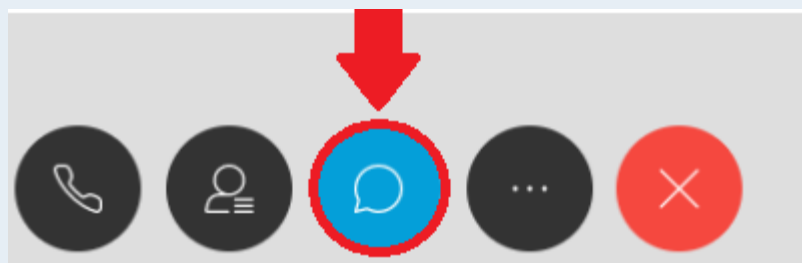
How To Use the “Chat” Function

Chat with the host for technical problems

If you are using the
WebEx application:

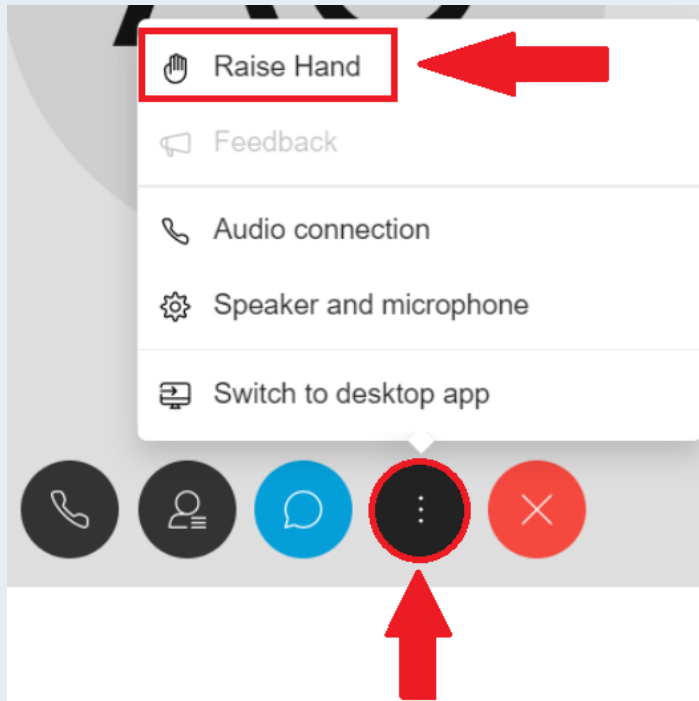


If you are using the WebEx browser:

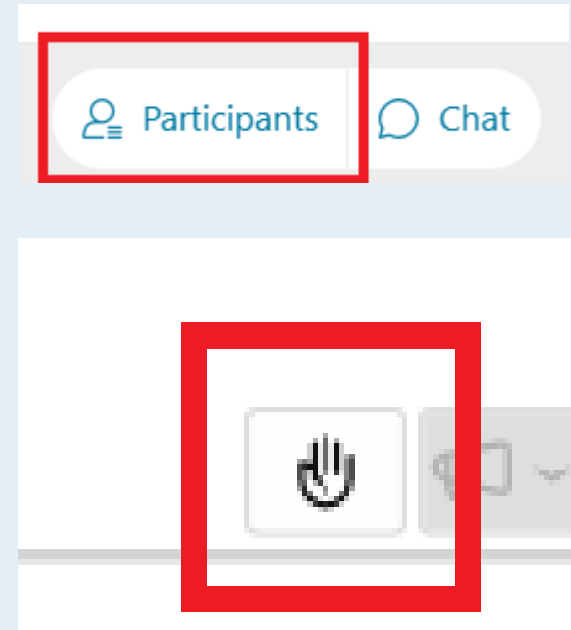


How To Use the “Raise Hand” Function

Joined by Browser



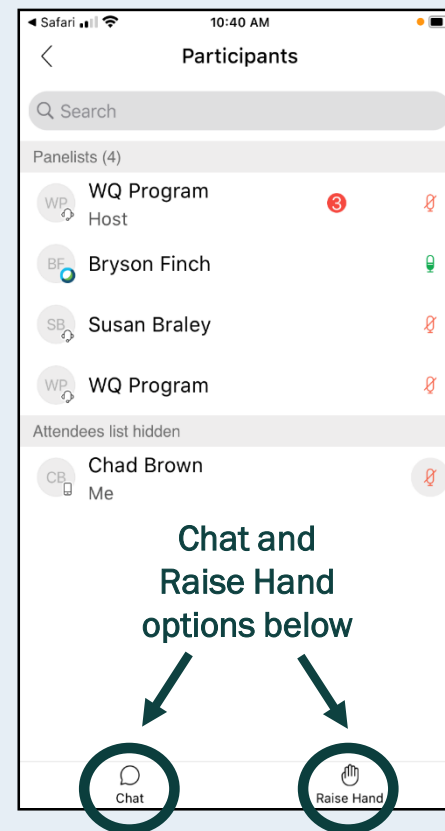
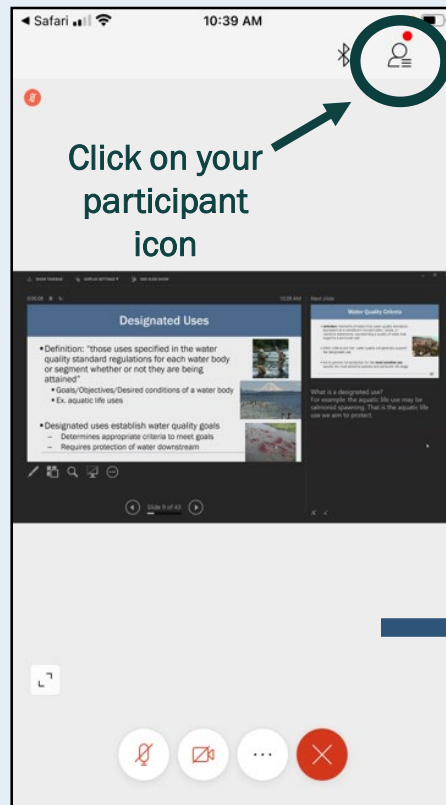
Joined by Application



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

- Laura Westfall – Host
- Tina Maurer – Co-Host
- Eman Jabali – Co-Host
- Jason Alberich – Rules and Planning Unit Supervisor
- Abbey Brown – Technical Lead
- Joel Creswell – Climate Policy Section Manager
- Debebe Dererie – Rulemaking Lead
- Janée Zakoren – Community Outreach Specialist

Agenda

- 1 Stakeholders' comments received
- 2 Draft rule overview
- 3 Stakeholders' comments
- 4 Next steps and wrap up



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Stakeholder Comments

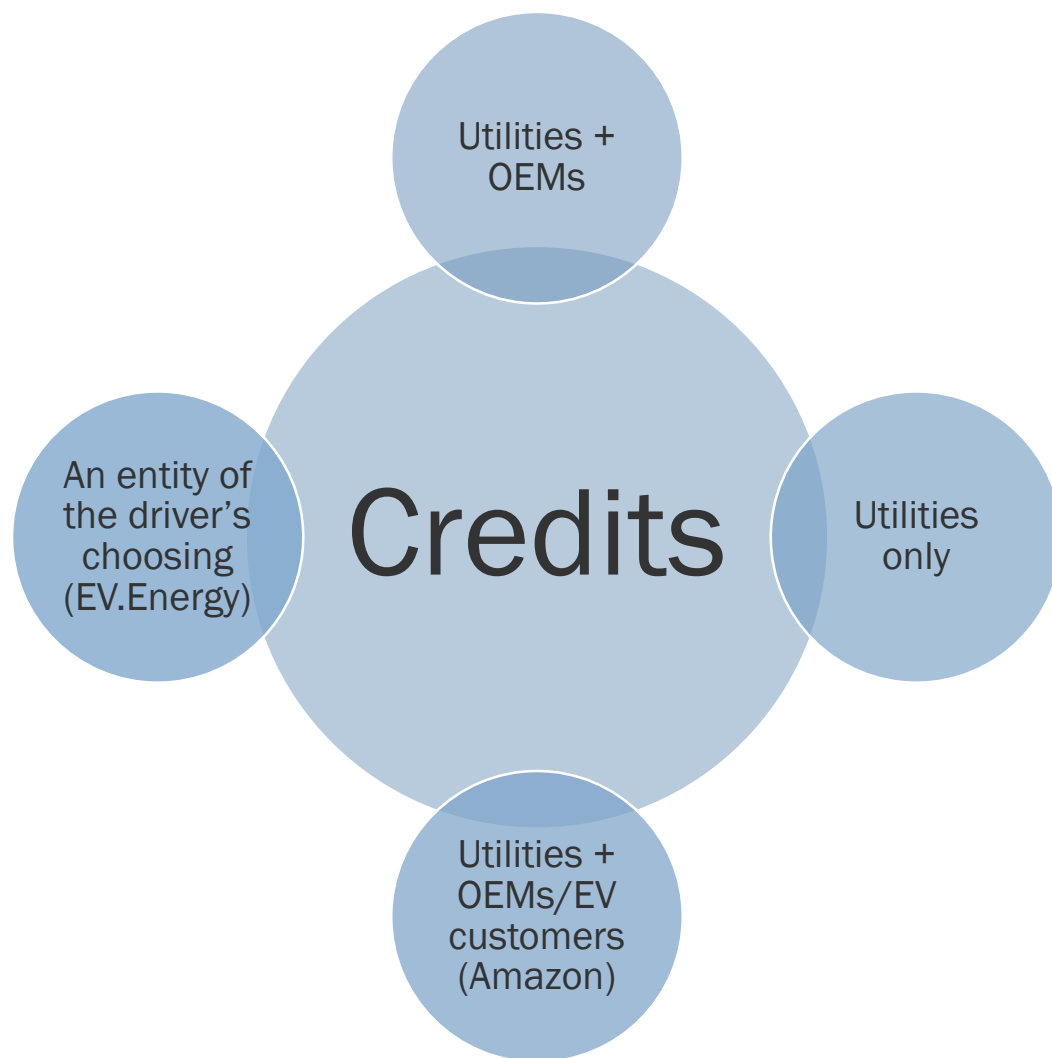
Abbey Brown

Comments Received From

Alaska Airlines	Amazon	Amply Power	Bio	Carbon Engineering	Clean Fuel Washington
Climate Solutions	Cowlitz County PUD	Crimson Renewable Energy	e-Mission Control	EV.Energy	Farmers Business Network
Forth Mobility	Indigo Agriculture	Insight Strategic Partners	Low Carbon Fuels Coalition	Molecule LLC	Neste
NorthWest Handling Systems	NW Energy Coalition	Pacific Ag	Port of Seattle	Renewable Energy Group	Seattle City Light
SkyNRG Americas	Snohomish County PUD	SREC Trade	Washington State Space Coalition	Western States Petroleum Association	

Comments submitted 11/17/2021 – 1/18/2022

Comments on Residential EV Charging

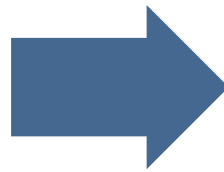


- Residential charging stations, metered or non-metered, should be allowed to generate credits. (Seattle City Light, EV.Energy)
- Consider EV rebate programs, such as CA's Clean Fuel Reward program. (ChargePoint)

Comments on Non-Residential EV Charging: Utilities and OEMs

The owner of EV charging equipment should get first right to credit generation.

(3Degrees, ChargePoint,
SnoPUD, Cowlitz PUD)



If station owners decline credit ownership, then utilities should be the credit owners.

(Seattle City Light, Cowlitz PUD)

Allow utilities to generate credits from all non-residential chargers located within and outside the utility's service area so long as the participating electric utility owns or operates that charging equipment. (SnoPUD)

Comments on Multi-Family Charging

- Multi-family properties should be considered “residential charging.” (Seattle City Light)
- Multi-family should be considered “non-residential” if rebates for EV chargers are available. (ChargePoint)
- Multi-family should be defined as four or more living units, where the EV charger is not privately owned. (3Degrees)
- Utilities should receive the associated credits for multi-family charging. (Seattle City Light)



Comments on eForklifts

Credits should go to
the **fleet operator**.

(eMission Controls)

Credits should go to
the **fleet owner**.

(NorthWest Handling
Systems)

Credits should go to
the **charging
equipment owner**.

(3Degrees)

Comments on Other Forklifts

- **Renewable propane forklifts:** Credits should go to the producer or importer of the renewable fuel. (3Degrees)
- **Hydrogen forklifts:** Credits should go to the equipment owners. (Amazon)



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Draft Rule Overview

Abbey Brown
Debebe Dererie
Joel Creswell

Covered in

November 16 Stakeholder Meeting

- WAC 173-424-100 Purpose
- WAC 173-424-130 Applicability
- WAC 173-424-100 Exemptions
- WAC 173-424-100 General Requirements
- WAC 173-424-200 Designation of Fuel Reporting Entities for Liquid Fuels
- WAC 173-424-210 Designation of Fuel Reporting Entities for Gaseous Fuels
- WAC 173-424-220 Designation of Fuel Reporting Entity for Electricity

To Cover in This Stakeholder Meeting

- Residential EV charging credit generation right designation
- WAC 173-424-REG Registration
- WAC 173-424-RK Recordkeeping
- WAC 173-424-QRP Quarterly Reports
- WAC 173-424-SRR Specific Reporting Requirements.
- WAC 173-424-ACR Annual Compliance Reports
- WAC 173-424-ASR Authority to Suspend, Revoke, or Modify
- WAC 173-424-PD Public Disclosure
- WAC 173-424-ED Emergency Deferrals
- WAC 173-424-FSF Forecast Deferral

(Section numbers to be assigned later.)

Residential EV Charging – Success Factors

Verifiable and accurate data on EV charging events

- Meter at on-site EV charging station?
- OEM – generated EV charging data?
- Estimation–data and calculation procedure?

Data coverage of the available EV charging events

- OEM – generated data – not available for all EVs

Providing incentives to all actors in the fuel life cycle

- Electric utility, EV – OEMs, EV owner

Residential EV Charging – Life Cycle Actors

Electric Utilities

- Cleaner electricity
- Varying electricity rate (and CI) over 24 hours – smart charging

EV-OEMs

- EV charging events data – telematics
- Cleaner EVs with telematics

EV owner

- EV usage (vehicle miles traveled)
- Smart charging – charging at low CI hours of the day

Residential EV Charging Credit – Options

Option 1: Utility 100% of credit, if claimed

- No metered EV charging required

Option 2: Utility 100% of credit - with incentive to meter

- Higher credit for metered EV charging compared to unmetered

Option 3: Utilities and OEMs share the credit

- OEM credit share increases with the extent of EV charging data provision

Residential EV Charging

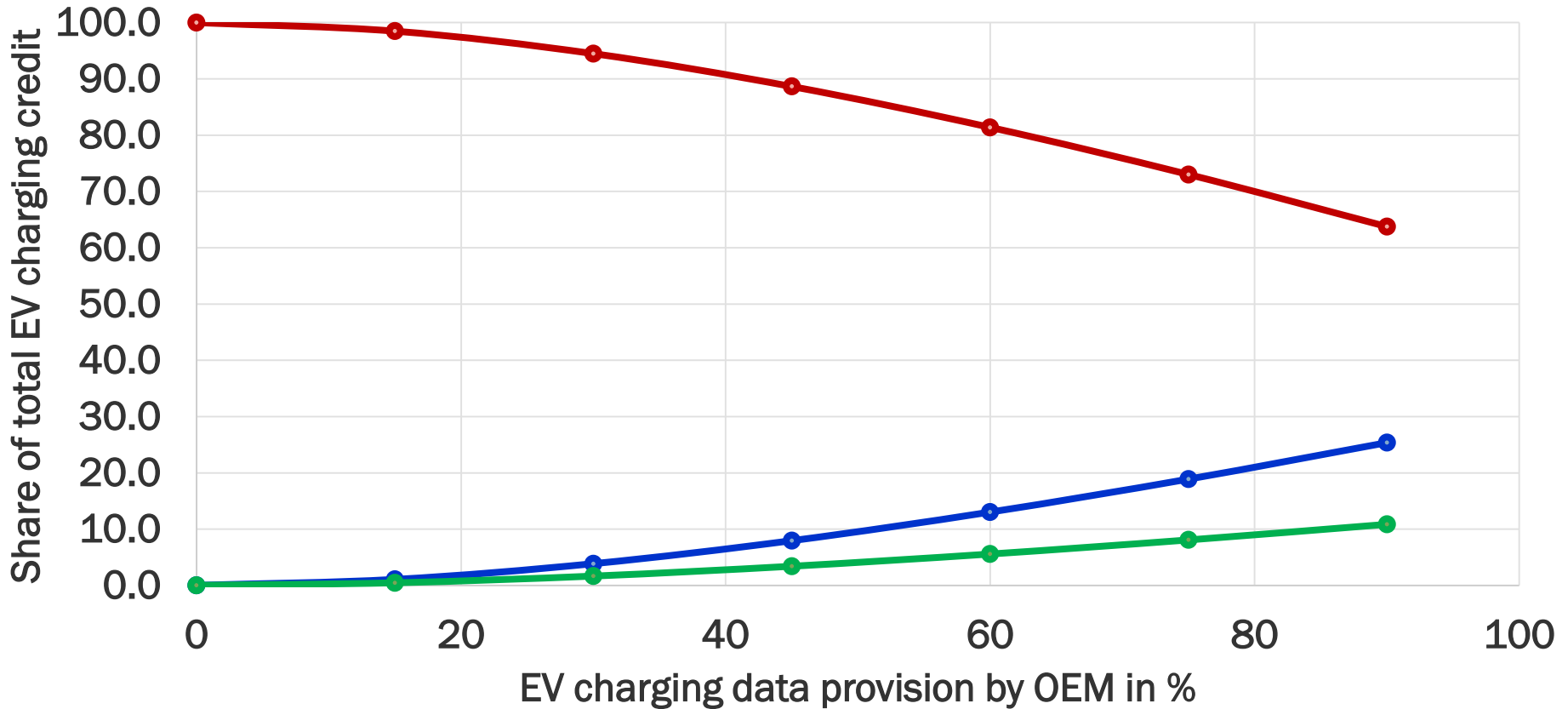
	Option 1	Option 2	Option 3
Credit generator	Utility	Utility for metered and non-metered	<ul style="list-style-type: none"> Metered EV credit: utility, OEM, and backstop aggregator Non-metered credit for utility
	Aggregator for unclaimed	Aggregator for unclaimed	<ul style="list-style-type: none"> OEM credit based on the extent of EV charging events data provision
			<ul style="list-style-type: none"> Backstop aggregator– shares metered credit and unclaimed credit
EV charging event data	No metering EV charging, use estimation method	Different credits for metered and unmetered	
Pros		Incentive for metered EV charging events	<ul style="list-style-type: none"> Credit largely based on measured EV charging energy Encourages OEM to provide more EVs with charging data meter
Cons	Credit is based on estimated energy, less effective program	Availability of feasible residential EV charging meter?	

Residential EV Charging Option 3 - Example

EV charging data provision by OEM, %	%	0	15	30	45	60	75	90
Elec. utility share of EV charging credit, %		100	98.5	94	89	81	73	64
OEM share of EV charging credit, %	70	0	1.1	4	8	13	19	25
Backstop aggregator share of EV credit, %	30	0	0.4	2	3	6	8	11
Total EV charging credit, %		100	100	100	100	100	100	100

Residential EV Charging Credit Distribution

Residential EV Charging Credit Distribution - Example



● Total OEM credit share in %
 ● Total Aggregator's credit share (At least)
 ● Total Elec. utility credit share, %

Registration

Registration in Washington Fuels Reporting System (WA-FRS)

- Eligibility: FREs, opt-in entities, aggregators
- Required information
- Establishing an account
- Account management roles and duties
- Modification to registration info
- Cancellation of registration
- Notification of related entities
- Registration of fueling supply equipment: NG, LPG, H2 and electricity

Registration in Alternative Fuels Portal (AFP)

- Eligibility
- Required information
- Account approval
- Establishing an account
- Account management roles and duties

Verification Portal (?) – verification process - will cover this later

Recordkeeping

- Record retention – 7 years (OR DEQ), 10 years (CARB), WA?
- Records to be retained
 - Fuel reporting entities
 - Fuel pathway holders and applicants
 - Verification bodies
- Product transfer documents: contents
- Credit transactions
- Availability for Ecology review
- Initial 2023 inventory
- Information exempt from disclosure – citation?
- Monitoring plan for entities required to validate or verify
 - General items
 - Fuel pathway carbon intensity or reporting quantities of fuels
 - Documentation that can be used to justify transaction types

Quarterly Reports

- Reporting deadlines:
 - Initial report upload – 45 days after the end of the quarter
 - Resolving discrepancies – Second 45 days of next quarter

Specific Reporting Requirements

- Rule to contain a table summarizing report contents for the following fuel types:
 - Natural gas and propane
 - Electricity
 - Hydrogen
 - Gasoline & diesel fuel
 - Liquid fuels: ethanol, biomass based diesel, renewable diesel, alternative jet fuel, and other alternative fuels

Specific Reporting Parameters for NG

- Amount of fuel dispensed per FSE
- **CNG, L-CNG, and LNG:** Carbon intensity – as in Lookup Table
- **CNG and L-CNG:** in Therms; LNG in gallons – separately by
 - All light and medium (LDV and MDV)
 - All heavy duty vehicles – compression ignition engines (HDV-CIE)
 - All heavy duty vehicles – Spark ignition engines (HDV-SIE)
- **Biomethane CNG, LNG, L-CNG:**
 - Carbon Intensity – approved
 - EPA production company ID and facility ID numbers
 - Attestation – for environmental attribute
- Total quantity of fuel, summed across all fuel pathway codes

Specific Reporting Requirements for Electricity

- The amount of electricity dispensed to or consumed by the equipment per FSE.
- **For non-metered residential EV charging**
 - Utility provide in 45 days - the Daily Average EV Electricity Use data for the calculation (Method TBD) of credits for non-metered charging
- **For metered residential EV charging**
 - Base credits: the amount of electricity (in kWh) used for residential EV charging per FSE. Additional recordkeeping requirements.
- **For public transit agency:** separate the amount of electricity by
 - light rail, streetcars, aerial trams, or electric transit buses
 - Year the system placed in service – pre- or post **2010 (CARB)/pre- or post-2012 (OR DEQ)?**
- **For forklift charging:** separate the amount of electricity by
 - Forklifts built in or before model year 2015 versus 2016 and afterward

Specific Reporting Requirements for Electricity

- To claim carbon intensity other than utility-specific CI (or statewide) or directly-connected renewable power under lookup table
 - i. REC retired in **WREGIS (CARB)** versus **recognized renewable electricity tracking system (OR DEQ)** for the unique purpose of covering the specific charging
 - ii. Proof of completion of final verification or validation statement from **Green-e-program**
 - iii. At least annually - the electric vehicle chargers are covered by a Utility Renewable Electricity Product or a power purchase agreement
- Smart charging – for future rulemaking – requires preparation
 - Statewide average versus utility specific – hourly CI for each quarter

Annual Reporting of Utility Credit Revenue

By April 30, the report must include

- a) Total revenue from the sale of base and incremental credits attributable to residential vehicle charging, if applicable in the prior year
- b) Description of spending of the credit revenue, including
 - i. Description of the programs or projects
 - ii. The amount spent in each program or project in the prior year
 - iii. Description of the areas that benefitted from the programs or projects
 - iv. Description of the group of individuals or listing of organizations that benefitted from the programs or projects
 - v. Any other data elements that Ecology may prescribe toward the implementation of RCW 70A.535.080

Specific Parameters for Hydrogen

- Amount (in kg) of hydrogen fuel dispensed per FSE separated by vehicle weight category
 - LDV/MDV and HDV
- For hydrogen fuel cell forklifts, the amount of hydrogen fuel dispensed (in kg) per FSE
- Smart electricity based hydrogen (?)
 - Quantity of electricity used for each hourly window & hourly CI
 - Retain documentation for Ecology review, upon request

Specific Parameters for Liquid Fuels

- The volume (in gal) of each blendstock per reporting period aggregated for each distinct carbon intensity value
 - e.g., X gallons of blendstock, Y gallons of blendstock with B gCO₂e/MJ
- Producer of gasoline or diesel must report, for each refinery
 - Marketable crude oil name (MCON) or other crude oil name designation
 - Volume (in gal), and country (or state) of origin for each crude supplied to the refinery during the quarter
- For renewable hydrocarbon diesel or gasoline processed at petroleum refinery
 - Producer – may report ongoing information under WAC 17-424-OCI (TBD)
 - Not producer – if not met WAC 173-424-OCI (TBD), may be required to report under temporary fuel pathway

Liquid Fuels – Temperature Correction

- All liquid fuel volumes (gal) at standard temperature – 60° F
- Ethanol
 - Standardized Volume = Actual volume * ((-0.0006301 * T) + 1.0378)
- Biodiesel
 - Stand. Volume = Actual Volume * ((-0.00045767 * T) + 1.02746025), **OR**
 - Standardized volume calculated using American Petroleum Institute Refined Products Table 6B, as referenced in ASTM 1250-08
- Other liquid fuels, the volume correction must be calculated by
 - American Petroleum Institute Manual of Petroleum Measurement Standards Chapter 11 – Physical Properties Data (May 2004),
 - ASTM Standard Guide for the Use of Petroleum Measurement Tables (ASTM D1250-08) (Reapproved 2013), **or**
 - API Technical Data Book, Petroleum Refining Chapter 6 – Density (April 1997)
- Registered party may propose other methods for Ecology approval

Specific Parameters for Propane

- The quantity (in gal) of propane dispensed per FSE
- For renewable propane, the Production Company ID and Facility ID

Annual Compliance Reports

- Must submit using the WA-FRS, by April 30
- Must meet the quarterly reporting requirements, at minimum
- Must include
 - a) Total credits and deficits generated per WAC 173-424-CCDFP
 - b) Any credits carried over from the previous compliance period
 - c) Any deficits carried over from the previous compliance period
 - d) Total credits acquired from other entities
 - e) Total credits sold or transferred and
 - f) Total credits retired to meet the compliance obligation per WAC 173-424-CCD
- All pending credit transfers must be completed prior to the submittal
- Correcting a previously-submitted report

Emergency Deferral – Conditions and Deadline

- **Determination to declare:** Consult with governor's office and Department of Commerce: Non-preventable, extreme, and unusual circumstance – shortage of fuel supply and public interest to grant deferral
- **Consideration:** To determine the extent of the fuel shortage
 - i. The volume and carbon intensity of the fuel
 - ii. The estimated duration of the shortage; and
 - iii. Options to mitigate shortage: other raw material, substitute fuel, banked credit
- **Permissibility:** Such a temporary & extremely unusual deferral - only if deferral is:
 - i. For the shortest time necessary to address the circumstances;
 - ii. For the shortest practicable time period to correct the circumstances; and
 - iii. Ecology has given public notice of a proposed deferral.
- **Deadline:** No later than 15 calendar days after the date that Ecology determines to issue emergency deferral according to (1)(a) of this section.

Emergency Deferral – Content

- Duration of the emergency deferral
- Types of fuel the emergency deferral applies to
- Which of the following methods for deferring compliance with the clean fuels program during the emergency deferral
 - a) Temporarily adjusting the carbon intensity standard;
 - b) Allowing for the carryover of deficits accrued; or
 - c) Suspending deficit accrual during the emergency deferral period.

Forecast Deferral

- 1) Conditions and deadline
 - a) Fuel supply forecast less than 100% of credits projected necessary
 - b) Fuel supply forecast by October 2
 - c) Deferral by December 1
- 2) Content
 - a) The duration of the forecast deferral: a quarter to a compliance year
 - b) The types of fuel to which the forecast deferral applies
 - c) Methods of deferring compliance with the CI standard
 - i. Temporarily adjusting the carbon intensity standard;
 - ii. Allowing for the carryover of deficits accrued; or
 - iii. Suspending deficit accrual during the emergency deferral period.
- 3) Other or additional method of deferring compliance
- 4) Terminating a forecast deferral

Other sections of draft rule

- WAC 173-424-ASRM Authority to Suspend, Revoke, or Modify
- WAC 173-424-PD Public Disclosure

Stakeholder Comments

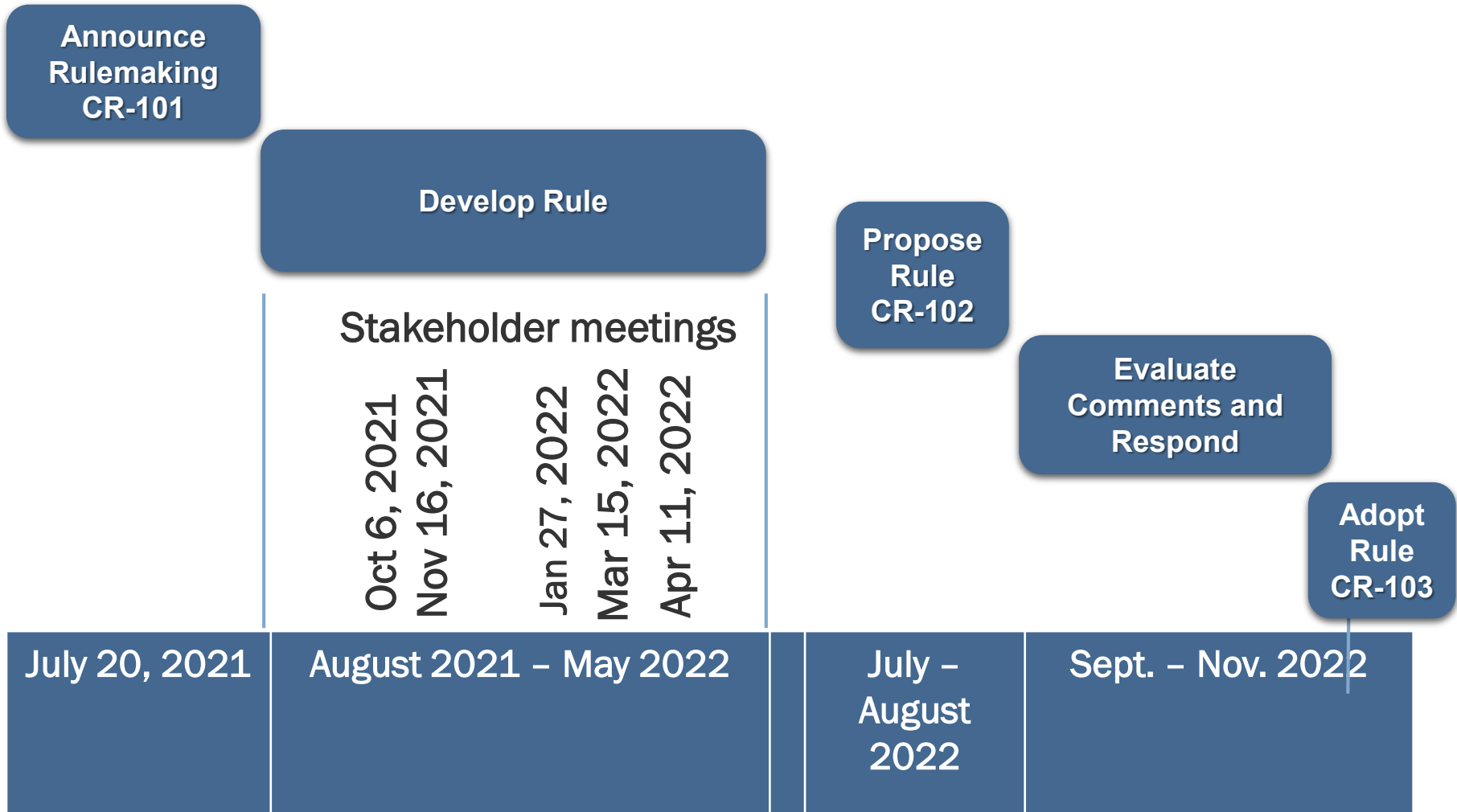
Be brief, so everyone has a chance to comment.



Next Steps – Wrap up

Debebe Dererie

Rulemaking Timeline



Stakeholder Meetings and Comments

- Next stakeholder meetings
 - March 15, 2022 (9 a.m. – noon)
 - Carbon intensity calculation
 - Third draft rule language
 - April 11, 2022 (9 a.m. – noon)
 - Carbon intensity calculation and other topics
- End of informal public comment period: April 25, 2022
- Summary of stakeholder meeting will be posted on the [Clean Fuels Program rulemaking web page](#) ¹
- Provide comments and read others' comments
<https://aq.ecology.commentinput.com/?id=DpgZ3>

¹ <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
https://public.govdelivery.com/accounts/WAECY/subscriber/new?topic_id=WAECY_142

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