



April 19, 2022 Stakeholder Meeting

**Clean Vehicles Program – Chapter 173-423 WAC
General Regulations for Air Pollution Sources –
Chapter 173-400 WAC**

Agenda

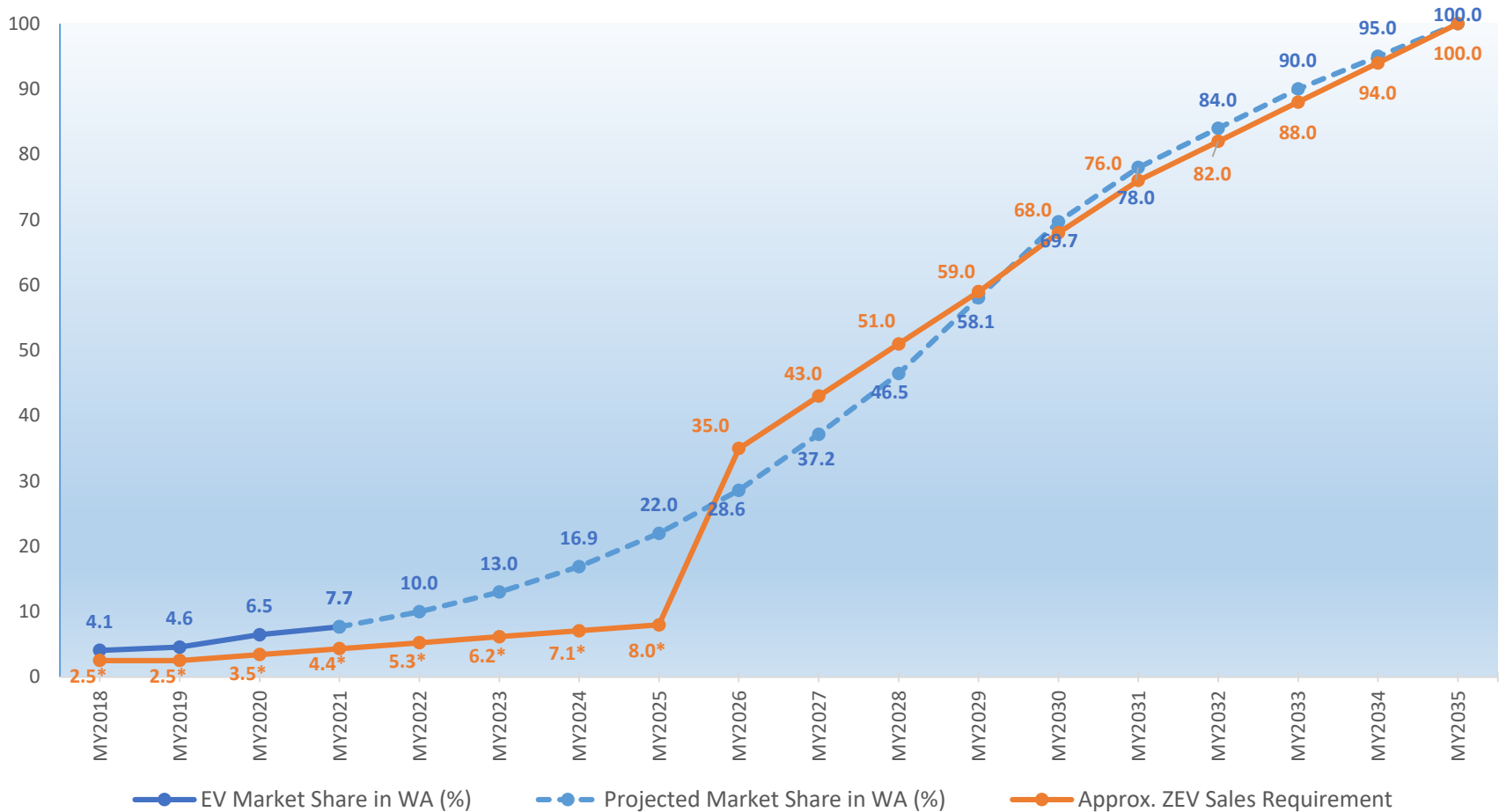
- Welcome and overview
- Revised ZEV credit options: Dustin Watson
- Overview: Advanced Clean Cars II: Dustin Watson
- Draft rules: Elena Guilfoil
 - Clean Vehicles Program – Chapter 173-423 WAC
 - General Regulations for Air Pollution Sources – Chapter 173-400 WAC

Revised ZEV Credit Options Paper

- Revised ZEV Credit Options paper – rulemaking website¹
 - Full list of acronyms
 - All charts and tables used in this presentation
 - Further detail and discussion
- What's changed?
 - Conversion of ACC I Credits to ACC II Historical Credits
 - Adjusted assumptions for new incentives passed by Legislature
 - Move Ahead Washington transportation funding package (ESSB 5974)

¹ <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC173-423-400Jan18>

Projected Future ZEV Sales and Market Share in Washington



Projected Credit Availability in Washington from ZEV Sales for MY 2025

- Automakers expected to earn 140,000 ZEV credits in 2025
 Converted to nearly 43,773 ACC II historical credits

Model Year	All New Light Duty Sales	% EVs	New Light Duty EV Sales	Credits Earned	ZEV Mandate (%)	Credits Needed	Yearly Over/Under Compliance	Running Total
2025	289,406	22.0	63,669	203,742	22.0	63,669	140,073	140,073

Projected Credit Availability in Washington from ZEV Sales for MY 2026 – MY 2030

- ACC II historical credits: 43,773
- Under ACC II starting in 2026, automakers expected to have annual deficits through 2029

Model Year	All New Light Duty Sales	% EVs	New Light Duty EV Sales	Credits Earned	ZEV Mandate (%)	Credits Needed	Yearly Over/Under Compliance	Running Total
2026	303,877	28.6	86,909	86,909	35.0	106,357	-19,448	24,325
2027	319,070	37.2	118,694	118,694	43.0	137,200	-18,506	5,819
2028	335,024	46.5	155,786	155,786	51.0	170,862	-15,076	-9,258
2029	351,775	58.1	204,381	204,381	59.0	207,547	-3,166	-12,424

ZEV Credit Options - Introduction

- **Option 1 – Full proportional credits**
Washington credits proportional to banked California credits
- **Option 2 – Adjusted proportional credits**
Washington credits proportional to banked California credits, adjusted for robust Washington sales
- **Option 3 – No additional ACC I credits**
- **Option 4 – Early action credits**
Credits for MY 2023 and MY 2024
- **Option 5 – Combination option**
Mix of proportional credits and early action credits
 - Option 5a: Option 4 and Option 1
 - Option 5b: Option 4 and Option 2

ZEV Credit Options – Policy Goals

- Provide credits in Washington to level the reliance on banked credits for compliance between model years 2026 and 2030
- Provide an incentive for ZEV delivery to Washington before model year 2025
- Support automakers that have invested in ZEV technology
- Prevent rewarding an automaker at the expense of another
- Maximize the number of ZEVs deployed in Washington
- Maximize reductions in criteria pollutants
 - Nitrogen oxides (NO_x)
 - Fine particulates (PM_{2.5})
 - Greenhouse gas emissions

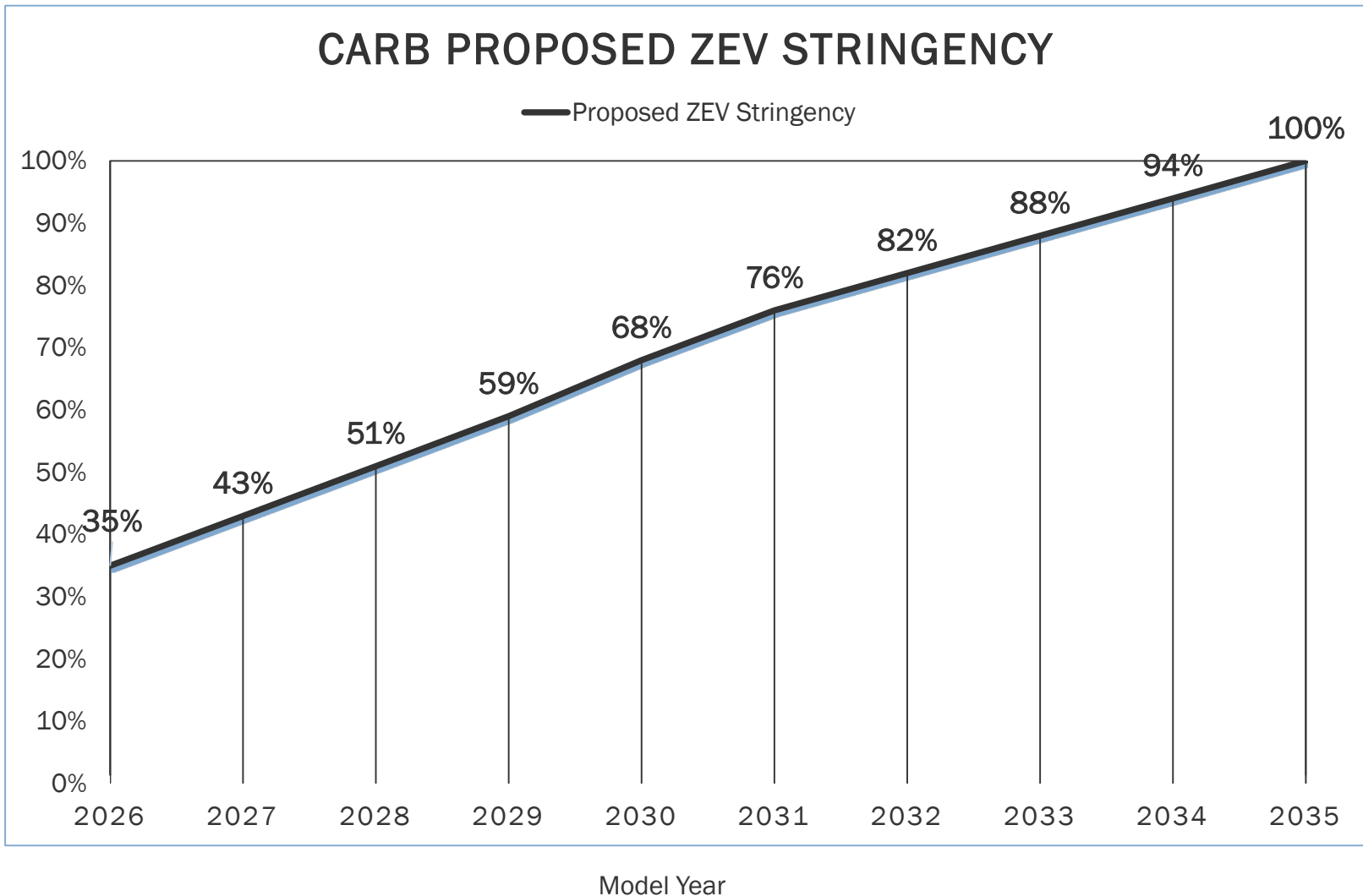
ZEV Credit Options – Summary

Option	Total Credits	Projected 2030 Credit Deficit	Difference
Option 1 – Full Proportional	105,467	- 6,144	99,323
Option 2 – Adjusted Proportional	55,897	- 6,144	49,753
Option 3 – No ACC I Credits	0	- 6,144	-6,144
Option 4 – Early Action Credits	80,706	- 6,144	74,562
Option 5a – Full Prop. With Early Action	186,173	- 6,144	180,029
Option 5b – Adjusted Prop. With Early Action	136,603	- 6,144	130,459

Overview of Advanced Clean Cars II

- Covers model years 2026 through 2035
- Includes zero emission vehicle (ZEV) standards and low emission vehicle (LEV) standards
- Increasing annual requirement for ZEV sales
- Will require 100% ZEVs by 2035
- Includes numerous flexibility measures for automaker compliance

CARB ACC II Proposed ZEV Stringency



How To Meet the ZEV Requirement

- Compliance obligation is on automakers
 - Must meet the ZEV stringency requirement for specific model year
- Primarily, with actual sales of battery electric vehicles (BEV) and fuel cell electric vehicles (FCEV)
- Plus, partially with (limits on each category)
 - Actual plug-in hybrid electric vehicles (PHEV)
 - Historical credits (pre-2026 model year BEV, FCEV, PHEV)
 - Environmental justice (EJ) allowances
 - Pooled new excess ZEV Values from other states
 - Only allowed for over-compliance in other state
- May also purchase or transfer ZEV Values from other automakers
- 3-year timeframe to make up shortfall

Other Components of ACC II for ZEVs

- New ZEV assurance measures
 - Propulsion part warranty requirements
7 years or 70,000 miles
 - Battery warranty requirements
 - Based on battery state of health (SOH)
 - MY 2026-2030: 70% SOH for 8 years or 100,000 miles
 - MY 2030+: 75% SOH for 8 years or 100,000 miles
- Updated minimum requirements for PHEVs
- Requires convenience cord for BEVs and PHEVs
- Small manufacturers (less than 4,500 CA annual sales) are exempt until MY 2035, then must be 100% ZEV

Low Emission Vehicle (LEV) Requirements in ACC II

- Updated fleet average non-methane organic gas and nitrogen oxides (NMOG+NO_x) standards
 - Removes BEVs and FCEVs from fleet average
 - Standard remains the same at 0.030 g/mi
- Updated particulate matter emission standards
Reduced from 6 to 3 mg/mi, phased in through 2030
- New control for aggressive driving emissions
Phased in through 2028
- Updated control for vehicle soak emissions
Sitting after running warm/hot

Low Emission Vehicle (LEV) Requirements in ACC II

- Updated control for cold-start quick drive-away emissions
Changed from 20-second idle to 8-second idle
- New PHEV cold-start high-power emission standard
Phased in through 2028
- Updated control for evaporative emissions
 - Running loss standard reduced from 0.05 to 0.01 g/mi
 - Phased in through 2028
- Updated control for emissions from heavier vehicles
 - Class 2b – NMOG+NO_x fleet average reduced from 0.175 to 0.150 g/mi
 - Class 3 – NMOG+NO_x fleet average reduced from 0.250 to 0.175 g/mi
 - Both phased in through MY 2029

Statutory Authority

- Motor Vehicle Emission Standards (Chapter 70A.30 RCW)
 - Directs Ecology to
 - Adopt California vehicle emission standards
 - Update its rule to maintain consistency with California's rules and Section 177 of the Clean Air Act
- Washington Clean Air Act (Chapter 70A.15 RCW)

Authorizes Ecology to adopt emission standards and regulate air quality in Washington

Clean Vehicles Program

Chapter 173-423 WAC

- Draft rule
- Section 030 Adoption by reference
 - Adds new rules
- Section 040 Definitions and abbreviations
 - Adds new definitions
- Section 060 Exemptions
 - Adds exemptions to fleet reporting in Section 081
- Section 075 Zero-emission vehicle standards
 - Adds requirements from Advanced Clean Cars II
 - Adds list of California rules adopted by reference in Section 030
 - ZEV credits: Starting in 2022, a ZEV vehicle sold can generate a ZEV credit

Section 081

Medium- and Heavy-Duty Vehicle Emission Standards

- Adds requirements from Low NOx Omnibus Rule and Phase 2 Greenhouse Gas Regulations and Tractor-Trailer GHG Regulations
- Modeled after Oregon's rules
- Exemptions
 - Rule exempts transit agencies
 - California exempts schools, school districts, and transit agencies
 - Oregon includes transit agencies – provisionally
- Rule relies on penalty provisions in California's rules

Section 083

Large Entity Reporting Requirement

- What is covered?
 - One-time fleet reporting requirement
 - Businesses, government agencies, and other entities
 - Operate or dispatch vehicle greater than 8,500 lbs.
- Content
 - California requirements: Sections 2012, 2012.1, and 2012.2
 - Washington rule follows Oregon's rule
- What types of vehicles must be reported?
 - On-road medium- and heavy-duty trucks
 - Vans, three-quarter-ton pickups, delivery trucks, school buses, transit buses, tractor-trailer trucks

Section 083

Who Must Report

Who must report

- Operate in Washington
- At least 1 vehicle over 8,500 lbs. GVWR
 - Large employers (gross annual revenues above \$50 million)
- 5 or more vehicles over 8,500 lbs. GVWR
 - Fleet owners
 - Dispatchers
 - State, local, and federal agencies – California rule applies to 1 or more vehicles

Section 083

What Must Be Reported

General entity information

- Company or government entity information
 - Name, address, contact information
 - Identification and permit numbers
- Contracted trucks
 - How many companies contracted to deliver items or perform work in or for the reporting entity
 - Number of subhaulers, vehicles operated by subhaulers, and number of vehicles operated by subhaulers that operated under the reporting entity's motor carrier authority
- Number of vehicles owned and operated in Washington not based in Washington

Section 083

Home Base Reporting Requirements

Vehicle's home base information

- Address
- Facility type
- Owned or leased by entity
- Fueling infrastructure at home base
- Types of trailers present at facilities being used as home base for a tractor

Section 083

Report Information by Home Base

Information on vehicles operated from the **home base**

- Body type, weight class bin, and fuel type
- Percent of vehicles in each vehicle group, including
 - Daily and annual mileage
 - Usage patterns
 - On-site refueling
 - Trailer towing
 - Hours on-site
 - Age of vehicles
- Vehicle retention
- Ownership of vehicles (fleet owner or brokerage)

Section 083

Reporting Deadlines

- Submission date: September 2023
- Report
 - Operations in 2022
 - Use online fillable PDF form
 - Submit via email

General Regulations for Air Pollution Sources

Chapter 173-400 WAC

- Draft rule – updates adoption date of federal rules
- Revise 5 sections
 - WAC 173-400-025 Adoption by reference
 - WAC 173-400-050 Emission standards for combustion and incineration units
 - Update to cite and add federal rules
 - WAC 173-400-070 Emission standards for certain source categories
 - Update to cite and add federal rules
 - WAC 173-400-115 Standards of performance for new sources
 - Update citation of federal rules – no substantive changes
 - WAC 173-400-720 Prevention of significant deterioration (PSD)
 - Clarify that EPA’s pre-2020 definition of “project emissions accounting” applies in Washington

Exemptions from Economic Analysis

- Administrative Procedures Act – Requires a cost-benefit analysis (RCW 34.05.328 (5)(b))
- Regulatory Fairness Act – Requires a Small Business Economic Impact Statement (RCW 19.85.025 (3))
- Exemptions
 - Rule content dictated by statute
 - Rule adopts federal rules by reference without change
 - Rule makes changes to text without changing effect
- What parts of this rulemaking require an economic analysis?
 - Fleet reporting
 - ZEV credit system for calendar years 2022 and 2023

Next Meeting

- Next/last meeting
Tuesday, May 24, 2022 (9 a.m. – 11 a.m.)
- Comment online through May 29, 2022
<https://aq.ecology.commentinput.com/?id=UZmpG>
- Rulemaking lead – starting May 1
Jason Alberich
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360-764-6633
- Technical lead
Dustin Watson
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360-764-6785

More Information

- Rulemaking web page¹ – Search for ZEV rulemaking
 - Revised ZEV credit options analysis
 - Draft rule
 - Presentation (will be posted)
 - Sign up for Clean Vehicles Program Rulemaking email list

¹<https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC173-423-400Jan18>

- Proposed Advanced Clean Cars II (ACC II) Regulations

<https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii>