

ON THE ROAD TO A CLEANER NEVADA

with Clean Car Standards



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**



Clean Cars Nevada

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**TECHNICAL SESSION – Low-Emission Vehicle (LEV) Program
February 23, 2021 @ 9:00 to 11:00 AM**



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Presentation Outline

1. General Provisions

- Applicability and Vehicle Definitions
- Manufacturer Definitions

2. Exemptions

3. Certification

4. Approval of Motor Vehicle Pollution Control Devices for New Vehicles

- Exhaust Emission Standards and Test Procedures and Other Provisions:
 - ✓ LEV - Criteria Air Pollutants
 - ✓ LEV – Greenhouse Gases
- Labels
- Reporting
- Compliance



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Presentation Outline (continued)

5. Initial Air Quality Analysis

6. Emission Control System Warranty

7. Recalls

- New Vehicle Recall Provisions
- In-Use Vehicle Voluntary and Influenced Recalls
- In-Use Vehicle Ordered Recalls

8. Schedule

9. Where to Find Out More



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Introduction

Clean Cars Nevada is Proposing the Evaluation and Potential Adoption of Two New Regulatory Programs for New Vehicles Beginning with Model Year 2025



Low Emission Vehicle (LEV) Program - Meet emission requirements that reduce greenhouse gases, criteria air pollutants, and hazardous air pollutants.



Zero Emission Vehicle (ZEV) Program - Introduction of clean vehicle technology in Nevada.





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Introduction (continued)



Low Emission Vehicle (LEV) Program - Meet emission requirements that reduce greenhouse gases, criteria air pollutants, and hazardous air pollutants.

- LEV – Criteria Air Pollutants
 - ✓ Hazardous Air Pollutants
- LEV – Greenhouse Gases





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Introduction (continued)

The goal of today's webinar is to provide an overview of the LEV Program and its potential implementation in Nevada. The LEV program contains many detailed requirements, and it is not the intent of this webinar to cover each of these requirements.

The provisions of this regulation set forth the emission standards for new motor vehicles in this State beginning with Model Year 2025.



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General Provisions

Applicability and Vehicle Definitions:

- New motor vehicles offered for sale or lease in this State or sold or leased for registration in this State;
- New motor vehicle engines offered for sale in this State that will be installed in; or
- New motor vehicles sold or leased to the US Government or an agency thereof or to the State of Nevada or political subdivision thereof that are or will be registered in this State that are:
 - ✓ Passenger cars;
 - ✓ Light-duty trucks;
 - ✓ Medium-duty passenger vehicles; or
 - ✓ Medium-duty vehicles



General Provisions (continued)

Vehicle Definitions:

“Passenger car” means any motor vehicle designed primarily for transportation of persons and having a design capacity of twelve persons or less.



Example – Acura ILX

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General Provisions (continued)

Vehicle Definitions (continued):

“Light-duty truck” means any 2000 and subsequent model motor vehicle certified to the standards in section 1961(a)(1) or 1961.2 rated at 8,500 pounds gross vehicle weight or less, and any other motor vehicle, rated at 6,000 pounds gross vehicle weight or less, which is designed primarily for purposes of transportation of property or is a derivative of such a vehicle, or is available with special features enabling off-street or off-highway operation and use.



Example – Toyota Tacoma (LDT2, < 6,000 # GVWR)



General Provisions (continued)

Vehicle Definitions (continued):

“Medium-duty passenger vehicle” means any medium-duty vehicle with a gross vehicle weight rating of less than 10,000 pounds that is designed primarily for the transportation of persons. The medium-duty passenger vehicle definition does not include any vehicle which: (1) is an “incomplete truck” i.e., is a truck that does not have the primary load carrying device or container attached; or (2) has a seating capacity of more than 12 persons; or (3) is designed for more than 9 persons in seating rearward of the driver's seat; or (4) is equipped with an open cargo area of 72.0 inches in interior length or more. A covered box not readily accessible from the passenger compartment will be considered an open cargo area, for purposes of this definition.

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General Provisions (continued)

Vehicle Definitions (continued):

“Medium-duty passenger vehicle” (continued)



Example – Chevrolet G2500 Express (MDV4, 8,501 to 10,000 # GVWR)

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General Provisions (continued)

Vehicle Definitions (continued):

“Medium-duty vehicle” ... any 2000 and subsequent model heavy-duty low-emission, ultra-low-emission, super-ultra-low-emission or zero-emission vehicle certified to the standards in Section 1961(a)(1), 1961.2, 1962, or 1962.1 having a manufacturer's gross vehicle weight rating between 8,501 and 14,000 pounds.



Example – Dodge Ram 3500 (MDV5, 10,001 to 14,000 # GVWR)



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General Provisions (continued)

Manufacturer Definitions:

- “Small volume manufacturer” means, with respect to the 2001 and subsequent model-years, a manufacturer with California sales less than 4,500 new passenger cars, light-duty trucks, medium-duty vehicles, heavy-duty vehicles and heavy-duty engines...
- “Independent low volume manufacturer” means a manufacturer with California annual sales of less than 10,000 new passenger cars, light-duty trucks and medium-duty vehicles...



General Provisions (continued)

Manufacturer Definitions (continued):

- “Intermediate volume manufacturer” means... any 2018 and subsequent model year manufacturer with California sales between 4,501 and 20,000 new light- and medium-duty vehicles...
- “Large volume manufacturer” means any 2000 and subsequent model year manufacturer that is not a small volume manufacturer, or an independent low volume manufacturer, or an intermediate volume manufacturer.

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Exemptions

Exemptions:

- A vehicle acquired by a resident of this State for the purpose of replacing a vehicle registered to the resident which was damaged, became inoperative beyond reasonable repair or was stolen while out of this State, provided that such replacement vehicle is acquired out-of-state at the time the previously owned vehicle was either damaged, became inoperative or was stolen, as applicable;
- A vehicle transferred by inheritance;
- A vehicle transferred by court decree;
- Any vehicle that has a certificate of conformity issued pursuant to Clean Air Act requirements, that was originally registered in another state by person who subsequently established residency in this State...



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Exemptions (continued)

Exemptions (continued):

- Any vehicle with 7,500 miles or more of use as of the date of sale or lease (i.e., Used Vehicle);
- Any vehicle designated as an authorized emergency vehicle pursuant to NRS 484A.480; and
- Any vehicle that meets the definition of a military tactical vehicle pursuant to NRS 445B.759.
- Any vehicle that is:
 - ✓ Sold to another dealer;
 - ✓ Sold for the purpose of being wrecked or dismantled;
 - ✓ Sold exclusively for off-highway use; or
 - ✓ Sold for registration out-of-state.



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Certification

Certification:

To be certified, a vehicle must demonstrate that its exhaust and (as applicable, depending on the specific vehicle category) evaporative emission control systems are durable and comply with the emission standards for the vehicle's useful life. This is done through durability and certification testing of the prototype certification vehicle(s). Compliance with on-board diagnostics, anti-tampering, fuel tank fill-pipe and openings, crankcase emissions, etc., as applicable, must be demonstrated also. An application for certification must be submitted to, and approved by, the Air Resources Board (ARB) (and the U.S. Environmental Protection Agency (USEPA) concurrently).

<https://ww3.arb.ca.gov/msprog/onroad/cert/cert.php#2>



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Certification (continued)

Certification (continued):

For certification purposes, vehicles are grouped in engine families or test groups for exhaust emissions (hereinafter, engine families) and evaporative families for evaporative emissions. Within each family, the vehicles share similar designs and are expected to have similar emission characteristics. An Executive Order is issued to certify an engine family in combination with one or more evaporative families. An Executive Order is valid for production during the specified model year. Vehicles produced for another model year require another Executive Order.

<https://ww3.arb.ca.gov/msprog/onroad/cert/cert.php#2>



Approval of Motor Vehicle Pollution Control Devices for New Vehicles

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Exhaust Emission Standards and Test Procedures

- LEV – Criteria Air Pollutants
- LEV – Greenhouse Gases

Other Provisions

- Onboard Diagnostic Systems (OBD II Systems) Requirements
- Fuel Evaporative Emissions Standards
- Vehicle Refueling Emissions Standards
- Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks

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Exhaust Emission Standards and Test Procedures

LEV - Criteria Air Pollutants:

- 1992 and Subsequent Model Diesel Engines Used in Medium-Duty Low-Emission Vehicles, Ultra-Low-Emission Vehicles, and Super-Ultra-Low-Emission Vehicles.
- 2015 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles:
 - ✓ Non-Methane Organic Gases (NMOG) + Oxides of Nitrogen
 - ✓ Carbon Monoxide
 - ✓ Formaldehyde
 - ✓ Particulates



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Exhaust Emission Standards and Test Procedures (continued)

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LEV - Criteria Air Pollutants (continued):

- A manufacturer must demonstrate compliance with the:
 - ✓ Exhaust Emission Standards applicable to specific test groups, and
 - ✓ Composite Emission Standards Phase-In Requirements applicable to the manufacturer's entire fleet.
- Each manufacturer may accrue and utilize credits and debits based upon the sales of vehicles by the manufacturer in this State.

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Exhaust Emission Standards and Test Procedures (continued)

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LEV - Greenhouse Gases:

- 2014 and Subsequent Model Heavy-Duty Diesel Engines and 2016 and Subsequent Heavy-Duty Otto-Cycle Engines Used in Medium-Duty Low-Emission Vehicles, Ultra-Low-Emission Vehicles, and Super-Ultra-Low-Emission Vehicles.
- 2017 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Passenger Vehicles:
 - ✓ CO₂
 - ✓ CH₄
 - ✓ N₂O

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Exhaust Emission Standards and Test Procedures (continued)

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LEV - Greenhouse Gases (continued):

- A manufacturer must demonstrate compliance with the:
 - ✓ Applicable fleet average CO₂ mass emission standards for each model year is the sales-weighted average of the calculated CO₂ exhaust mass emission target values for each manufacturer.
 - ✓ Each manufacturer's fleet of combined passenger automobile, light-duty trucks, and medium-duty passenger vehicles must comply with N₂O and CH₄ standards using either the provisions of
 - *Standards Applicable to Each Test Group*
 - *Fleet Averaging Program*
 - *Optional Use of Alternative Standards*



Exhaust Emission Standards and Test Procedures (continued)

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LEV - Greenhouse Gases (continued):

- Each manufacturer may accrue and utilize credits and debits based upon the sales of vehicles by the manufacturer in this State.

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Approval of Motor Vehicle Pollution Control Devices for New Vehicles – Labels

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Emission Control and Environmental Performance Labels

- A person shall not sell or lease, offer for sale or lease, register, import, deliver, purchase, rent or otherwise acquire or receive a new passenger car, light-duty truck, medium-duty passenger vehicle or medium-duty vehicle in this State to which emissions control labels and environmental performance labels have not been affixed.

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Approval of Motor Vehicle Pollution Control Devices for New Vehicles – Reporting

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Reporting:

- Each manufacturer must submit to the Department, not later than March 1 following the end of the model year:
 - ✓ A report of the non-methane organic gas plus oxides of nitrogen exhaust emissions of the manufacturer's fleet delivered for sale in this State for the applicable model year.
 - ✓ A report of the greenhouse gas exhaust emissions of the fleet delivered for sale in this State by the manufacturer for the applicable model year.

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Approval of Motor Vehicle Pollution Control Devices for New Vehicles – Compliance

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Compliance:

If the Department determines that a report submitted by a manufacturer demonstrates that the manufacturer is not in compliance with the fleet average emissions standard, the Department shall require the manufacturer to submit a fleet average remediation report within 60 days after the manufacturer receives notice from the Department that the manufacturer is not in compliance.

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Approval of Motor Vehicle Pollution Control Devices for New Vehicles – Compliance (continued)

Compliance (continued):

The report must:

- Describe how the manufacturer intends to equalize any accrued debts;
- Identify all vehicle models delivered for sale in this State, the corresponding certification standards of the vehicle models and the percentage of each vehicle model delivered for sale in this State and the state of California in relation to total fleet sales in each respective state; and
- Describe how the manufacturer intends to achieve compliance with the fleet average greenhouse gas emission standard for future model years

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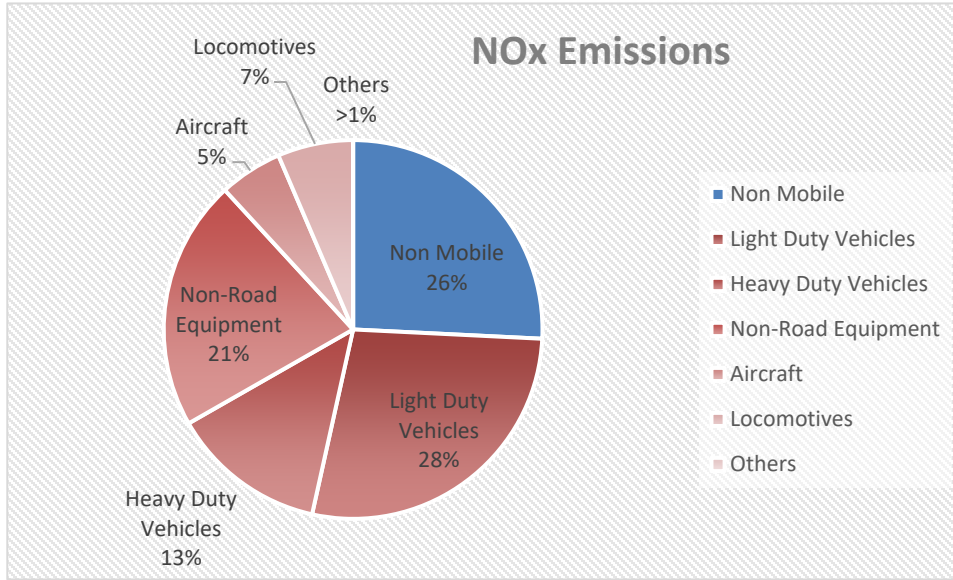
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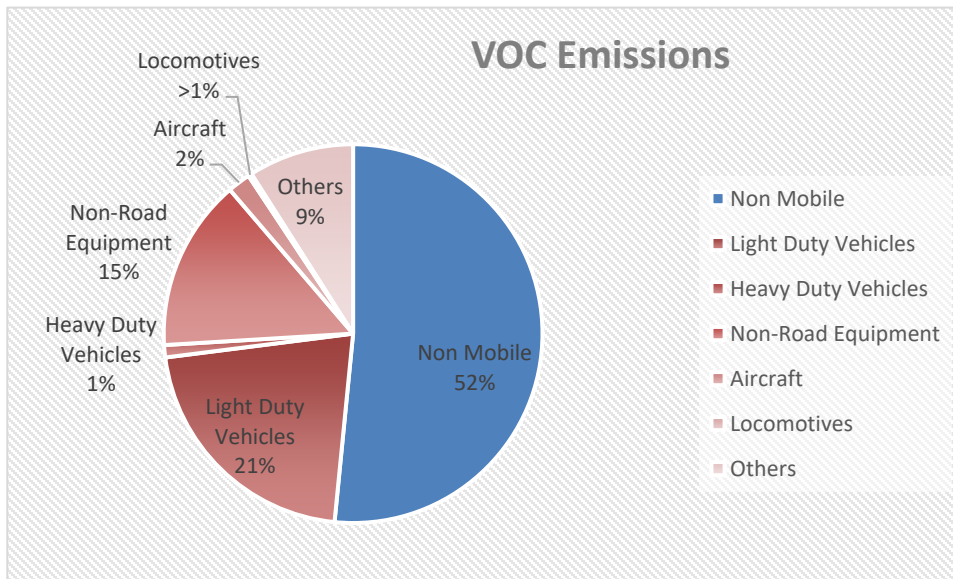
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Initial Air Quality Analysis



From 2017 EPA's National Emission Inventory (Anthropogenic emissions only)

Total Nevada NOx emissions = 69,598 tons



Total Nevada VOC emissions = 69,384 tons



Initial Air Quality Analysis (continued)

Estimated GHG Emissions under Business As Usual and Clean Cars Nevada LEV



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Emission Control System Warranty

Beginning with model year 2025, each manufacturer of passenger cars, light-duty trucks, medium-duty vehicles and motor vehicle engines subject to this regulation must provide to the ultimate purchaser of the vehicle and each subsequent purchaser a warranty specific to the LEV program as discussed in the following slides.

- Note “ultimate purchaser” means, with respect to any new motor vehicle or new motor vehicle engine, the first person who in good faith purchases a new motor vehicle or new motor vehicle engine for purposes other than resale.

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Emission Control System Warranty (continued)

The Emission Control System Warranty requirements are briefly summarized as follows:

- Purpose, Applicability, and Definitions.
 - ✓ The purpose of these warranty requirements are to clarifying the rights and responsibilities of individual motor vehicle and motor vehicle engine owners, motor vehicle and motor vehicle engine manufacturers, and the service industry.
- Defects Warranty Requirements.
- Performance Warranty Requirements.
- Emissions Control System Warranty Statement.
- Vehicle Owner Obligations.

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Recalls

Recalls:

- New Vehicle Recall Provisions
- In-Use Vehicle Voluntary and Influenced Recalls
- In-Use Vehicle Ordered Recalls



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Recalls (continued)

New Vehicle Recall Provisions:

When applicable, a manufacturer is required to submit a plan within 30 calendar days of receipt of the order to bring all vehicles into compliance.

- The plan may include measures to identify the cause of vehicle noncompliance and to correct noncomplying conditions, correction of vehicles under manufacture, correction of vehicles in the possession or control of the manufacturer and dealers, and correction of vehicles in the possession of consumers (by correction upon service whether or not by warranty, by correction following notification of recall by mail, or by correction following efforts actively to locate and correct all such vehicles).



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Recalls (continued)

In-Use Vehicle Voluntary and Influenced Recalls:

When any manufacturer initiates a voluntary emission recall campaign, the manufacturer shall provide notification of the recall at least 30 days before owner notification is to begin. The manufacturer shall also submit a voluntary recall plan for approval.



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Recalls (continued)

In-Use Vehicle Ordered Recalls:

A manufacturer shall be notified whenever it has determined, based on warranty information reports, field information reports, enforcement testing results, or any other information, that a substantial number of a class or category of vehicles or engines produced by that manufacturer, although properly maintained and used, contain a failure in an emission-related component which, if uncorrected, may result in the vehicles' or engines' failure to meet applicable standards over their useful lives.



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Recalls (continued)

For all passenger cars, light-duty trucks, medium-duty vehicles, and motor vehicle engines subject to an emissions related recall in the state of California, each manufacturer shall undertake recall campaigns in this State:

- In-Use Vehicle Voluntary and Influenced Recalls
- In-Use Vehicle Ordered Recalls

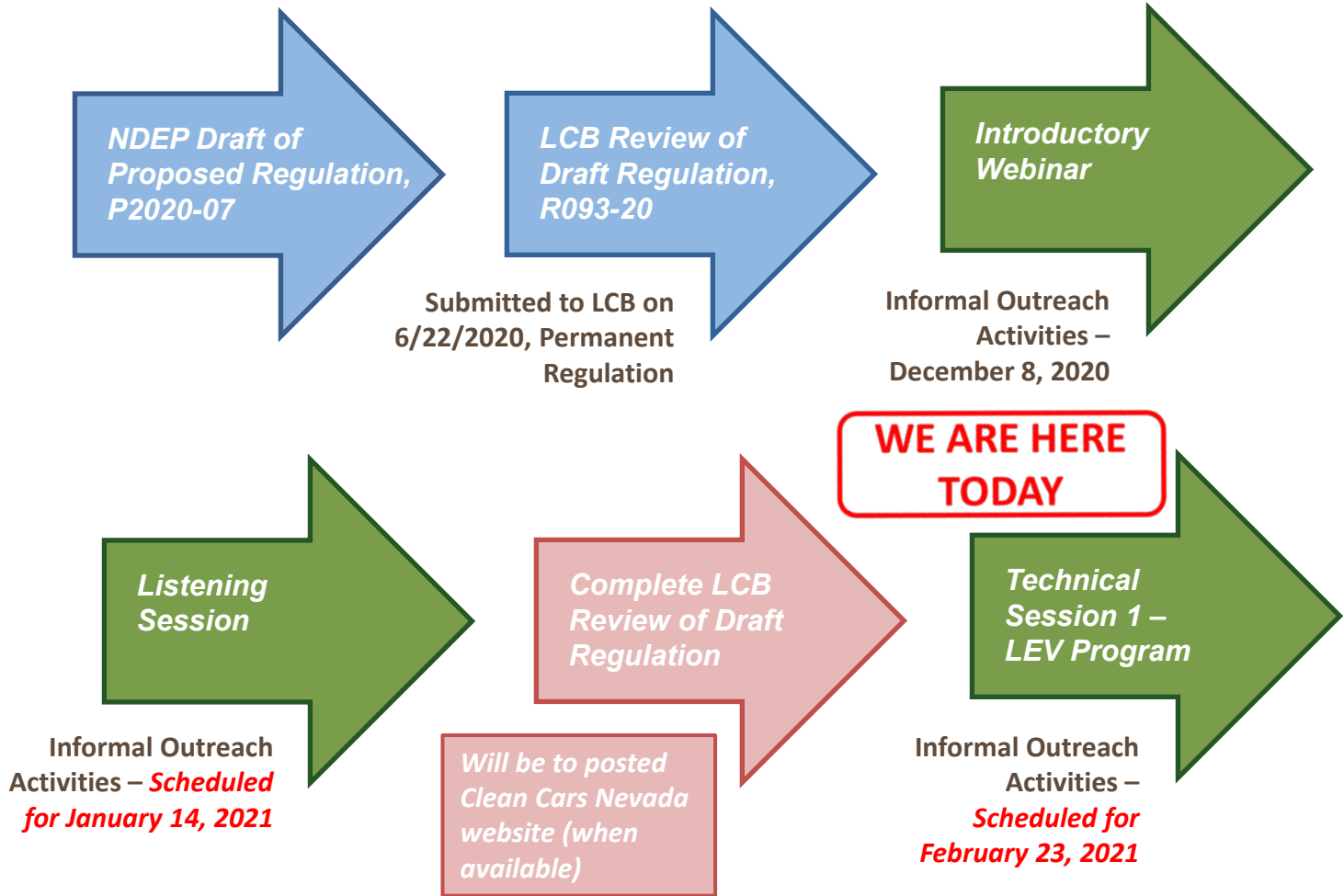
Note: A manufacturer is not required to undertake a recall campaign if the manufacturer demonstrates to the Department that such emission-related recall is not applicable to vehicles registered in this State.



The Regulatory Process and Opportunities for Public Input and Participation

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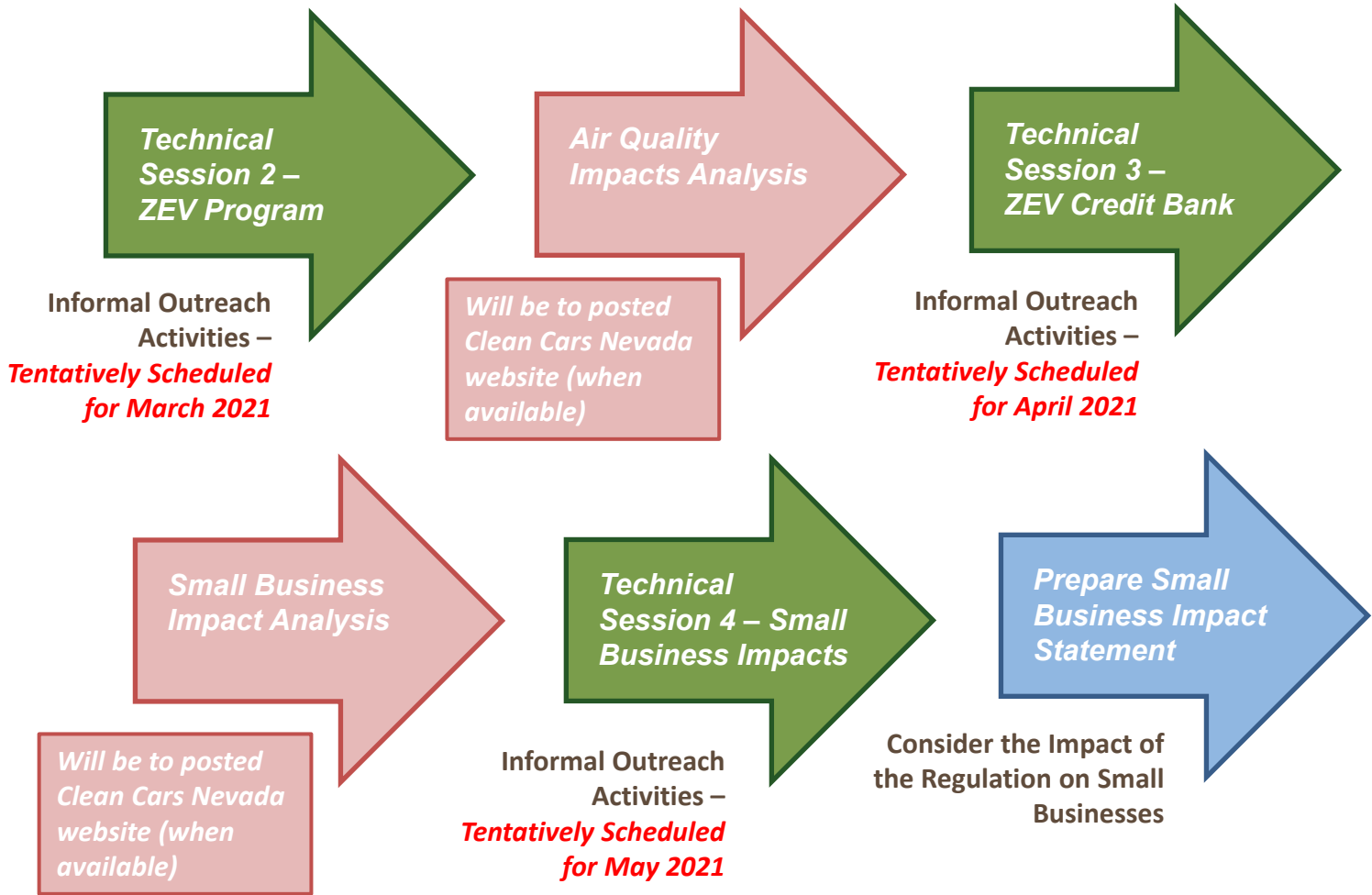
Note: BLUE = Regulatory Step; GREEN = Informal Activity; and RED = Data/Analysis Step



The Regulatory Process and Opportunities for Public Input and Participation (continued)

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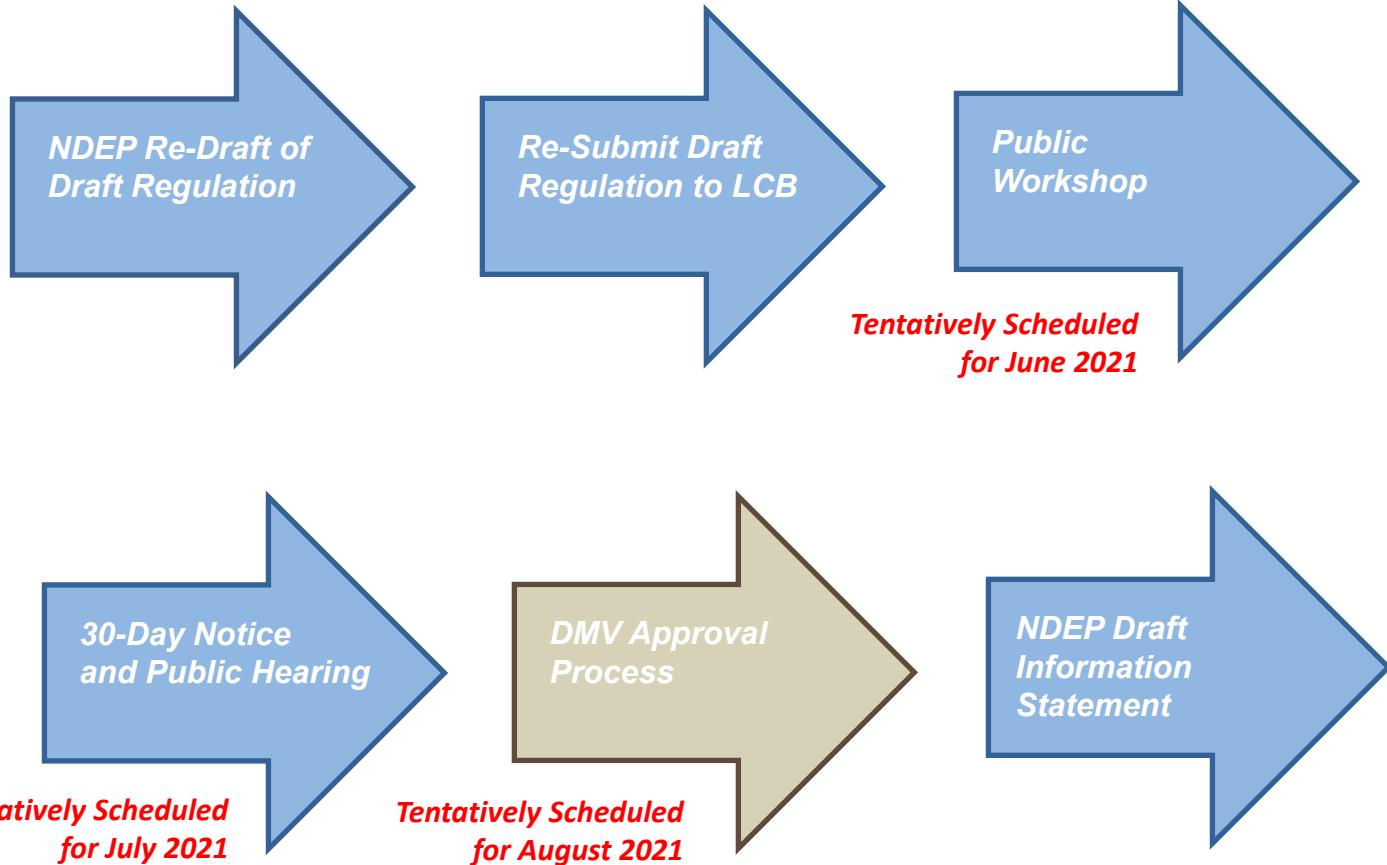
Note: BLUE = Regulatory Step; GREEN = Informal Activity; and RED = Data/Analysis Step



The Regulatory Process and Opportunities for Public Input and Participation (continued)

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Note: BLUE = Regulatory Step and BROWN = DMV Process



The Regulatory Process and Opportunities for Public Input and Participation (continued)

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Complete Regulatory Process by End of 2021 for Model Year 2025 Vehicles (Available Sometime in 2024)

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Where to Find Out More



Visit NDEP Clean Cars Website for updates
<http://ndep.nv.gov/air/clean-cars-nevada>



E-mail at CleanCarsNevada@ndep.nv.gov



Sign up for Clean Cars Nevada listserv on NDEP Website



Join a program-specific email list to follow NDEP's regulatory actions and public notices

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Select a topic below for program-specific news and updates.

Board for Financing Water Projects

VW Settlement - Nevada Mitigation Fund

Nevada Recycling Program

Nevada Brownfields Program

Air Quality Info and Notices

Nevada Federal DOE Facility Oversight

Environmental Outreach & Education

Clean Cars Nevada



NDEP will be hosting Technical Session 2 – ZEV Program

Tentatively Scheduled for
March 2021

More details to follow.