Nevada Division of Environmental Protection

Clean Cars Nevada

On the Road to a Cleaner Nevada

April 27, 2021

Presented by:

Jeffrey Kinder, Deputy Administrator
Danilo Dragoni, Chief, BAQP
Sig Jaunaraajs, Supervisor, BAQP
Presentation Outline

• Introduction

• Fleet Statistics
  o Data Sources
  o State of the Fleet
  o New LDV Sales
  o Manufacturer Sales
  o Sales by County
  o ZEV Sales
Presentation Outline (continued)

• ZEV Credit Requirements

• ZEV Program
  o Compliance for Nevada
  o Comparison w/Oregon

• Next Steps
  o Estimating Future ZEV Credits
  o Estimating Emission Reductions
Presentation Outline (continued)

• The Regulatory Process and Opportunities for Public Input and Participation
• Where to Find Out More
• Public Comments
• Next Event
• Contact Us
Clean Cars Nevada is Proposing the Evaluation and Potential Adoption of **Two** New Regulatory Programs

- **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.
The goal of today’s webinar is to present statistics on Nevada’s fleet of passenger cars and light-duty trucks. This includes all registered light-duty vehicles as well as recent new light-duty vehicle sales.

The provisions of this regulation set forth the ZEV percentage requirements for new motor vehicles in this State beginning with Model Year 2025.
Fleet Statistics – Data Sources

Vehicle Sales for calendar years 2015-2020

• From Electronic Dealer Report of Sale Program. Provided by DMV.
• QA/QC and processing of data provided a list of all new vehicles, their makes, and model years sold between 2015 and 2020.

Vehicle Credits for all model years sold in 2015-2020

• Assigned to each vehicle using Executive Orders from California Air Resource Board (https://ww3.arb.ca.gov/msprog/onroad/cert/cert.php#1)
Fleet Statistics – State of the Fleet

• 2,000,000 – Light-Duty Vehicles Registered in Nevada
  • 60% registered in Clark, 17% registered in Washoe, and the remainder are registered throughout the rest of the state
• 119,356 – Average Annual New Light-Duty Vehicles Sales from 2015-2020
• Passenger Cars make up 35%, Light-Duty Trucks 65% of New Registrations for Light-Duty Vehicles
• 3% – Average Fraction of New Light-Duty Vehicles Sales in Nevada that are ZEV or TZEVs

Why are these statistics important to our analysis?
Fleet Statistics – New LDV Sales

Total LDV Sales and Percentage of BEV and PHEV

[Bar chart showing sales percentages from 2015 to 2020, with a trend line indicating a decrease in the percentage of ICE vehicles sold.]
FLEET STATISTICS – MANUFACTURER SALES

2015-2020 Average LDV Sales by Manufacturer

- Toyota (19%)
- Ford (10%)
- Hyundai (6%)
- Nissan (8%)
- Honda (10%)
- FCA (13%)
- General Motors (14%)
- BMW (2%)
- VW (4%)
- Mazda (2%)
- Mercedes (2%)
- Kia (3%)
- Subaru (4%)
- Tesla (1%)
- Others (1%)
Fleet Statistics – Manufacturer Sales (continued)

2015-2020 Average LDV Sales by Large Volume Manufacturer

Large Volume Manufacturers have sales greater than 20,000 in California
2015-2020 Average LDV Sales by Intermediate Volume Manufacturer

Intermediate Volume Manufacturers have sales 4,500 – 20,000 in California
Location of new light-duty vehicle sales in Nevada, 2015-2020

- Clark County: 77%
- Washoe County: 14%
- Rest of Nevada: 9%
Fleet Statistics – ZEV Sales

About 35% increase in past 3 years
FLEET STATISTICS – ZEV SALES (CONTINUED)
# ZEV Credit Requirements

<table>
<thead>
<tr>
<th>Model Year</th>
<th>Credit Percentage Requirement</th>
<th>Percentage of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>4.5%</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>7.0%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>9.5%</td>
<td>~3.0%</td>
</tr>
<tr>
<td>2021</td>
<td>12.0%</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>14.5%</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>17.0%</td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td>19.5%</td>
<td></td>
</tr>
<tr>
<td>2025 and subsequent</td>
<td>22.0%</td>
<td>8.0% (estimated in some third-party report)</td>
</tr>
</tbody>
</table>

ZEV Credit Percentages **are not** Percentage of Sales
If the ZEV Program was in effect today and assuming total vehicle sales of approximately 120,000 LDVs

3% of BEV/PHEV sales
ZEV Requirements and Compliance for Nevada (continued)

- Requirement vs. Compliance

- 3% of BEV/PHEV sales

- Model Year 2018: 4.5%
- Model Year 2019: 7.0%
- Model Year 2020: 9.5%
- Model Year 2021: 12.0%
- Model Year 2022: 14.5%
- Model Year 2023: 17.0%
- Model Year 2024: 19.5%
- Model Year 2025: 22.0%
ZEV PROGRAM - COMPLIANCE FOR NEVADA (CONTINUED)

- Trend of last 3 years (~35% annual increase)
- ~20% annual increase
- 2020 repeat (0% annual increase)

CREDIT PERCENTAGE

MODEL YEAR

ZEV Requirements and Compliance

Requirement
So many factors that were oversimplified or not considered

- Credits assigned by manufacturer, not statewide
- No increase in overall sales of LDVs
- Same annual make-up of new BEV/PHEV sales
- No change in BEV/PHEV model availability
- No change in mileage range of BEV or PHEV
- No change in technology (e.g., BEV/PHEV Light-Duty Trucks)
Compliance is at the manufacturer level

BEV and PHEV Sale Percentage by Manufacturer

- Tesla
- Others
- Total BEV/PHEV Sales


TOTAL VEHICLES SOLD

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

PERCENTAGE

CALENDAR YEAR


ZEV PROGRAM - COMPLIANCE FOR NEVADA (CONTINUED)
ZEV Program – Comparison w/Oregon

Nevada (MY 2020)
Total BEV/PHEV sales = 2,805

- Tesla (94%)
- Others
  - VW (2%)
  - GM (2%)

Oregon (MY 2020)
Total BEV/PHEV sales = 2,430

- Tesla (52%)
- Toyota (16%)
- Others
  - Chevrolet (11%)
  - Hyundai (7%)

**Next Steps - Estimating Future ZEV Credits**

- Estimating future ZEV credits will consider:
  - Light-duty fleet statistics, recent ZEV sales, and potential ZEV & TZEV sales trends,
  - Expected technology improvements in battery capacity, and
  - Individual manufacturer plans for future ZEV & TZEV offerings.

- NDEP will estimate the ZEV credits that will be generated during 2025, the first year of compliance.

- This includes projections of credits earned by large and intermediate volume manufacturers.

- The ZEV credit analysis will be used to better inform decisionmakers about the likelihood of meeting the minimum compliance credit levels and the potential need for early credits and/or initial proportional credits.
Calculate emissions benefits of the Clean Cars Nevada LEV/ZEV Program and compare estimated emissions benefits with a business-as-usual reference case.

- NDEP will consider: 1) Tailpipe emissions, and 2) "Upstream emissions" from electric power generation used to charge EVs.

- The emissions reduction analysis will help policymakers assess the expected emission reductions from the Clean Cars Nevada program and how the program can assist in achieving statewide climate goals.
THE REGULATORY PROCESS AND OPPORTUNITIES FOR PUBLIC INPUT AND PARTICIPATION

NDEP Draft of Proposed Regulation, P2020-07

LCB Review of Draft Regulation, R093-20

Introductory Webinar

Listening Session

Complete LCB Review of Draft Regulation

Technical Session 1 – LEV Program

COMPLETE

COMPLETE

COMPLETE

COMPLETE

COMPLETE

COMPLETE

COMPLETE

Note: BLUE = Regulatory Step; GREEN = Informal Activity; and RED = Data/Analysis Step
THE REGULATORY PROCESS AND OPPORTUNITIES FOR PUBLIC INPUT AND PARTICIPATION (CONTINUED)

- Technical Session 2 – ZEV Program

Informal Outreach Activities – March 30, 2021

Air Quality Impacts Analysis 1 – State of the Fleet

Informal Outreach Activities – April 27, 2021

Air Quality Impacts Analysis 2 – Sales Projections and ZEV Credit Rqmts.

Informal Outreach Activities – Tentatively Scheduled for May 2021

Air Quality Impacts Analysis 3 – ZEV Credit Bank

Informal Outreach Activities – Tentatively Scheduled for June 2021

Small Business Impacts

Informal Outreach Activities – Tentatively Scheduled for June 2021

Small Business Impact Analysis

Will be posted to Clean Cars Nevada website (when available)

Note: GREEN = Informal Activity and RED = Data/Analysis Step
THE REGULATORY PROCESS AND OPPORTUNITIES FOR PUBLIC INPUT AND PARTICIPATION (CONTINUED)

- Prepare Small Business Impact Statement
  - Consider the Impact of the Regulation on Small Businesses

- Stakeholder Engagement
  - Informal Outreach Activities – Tentatively Scheduled for June 2021

- NDEP Re-Draft of Draft Regulation
  - Tentatively Scheduled for June 2021

- Re-Submit Draft Regulation to LCB
  - Tentatively Scheduled for June 2021

- SEC Forms 1 and 4
  - Tentatively Scheduled for June 2021

- Public Workshop (and 15-Day Notice)
  - Tentatively Scheduled for July 2021

Note: BLUE = Regulatory Step; GREEN = Informal Activity; and PURPLE = Approval Process
THE REGULATORY PROCESS AND OPPORTUNITIES FOR PUBLIC INPUT AND PARTICIPATION (CONTINUED)

DMV Approval Process
Tentatively Scheduled for September 2021

State Environmental Commission Hearing and Approval
Tentatively Scheduled for September 2021

Secretary of State Filing
Tentatively Scheduled for December 2021

Legislative Commission
Tentatively Scheduled for November 2021

NDEP Draft Information Statement

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

Note: BLUE = Regulatory Step; BROWN = DMV Process; and PURPLE = Approval Process
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
NDEP is posting all public comments received by email or letter on-line

https://documentviewerpublic.ndep.nv.gov

An account is required to access the comments, but it can be created right away by signing up.

Once signed in, select the category ‘Public Comments For Clean Cars Nevada’

You can then search for public comments by name, organization and submission date
ON THE ROAD TO A CLEANER NEVADA
with Clean Car Standards

CLEANER AIR
HEALTHIER COMMUNITIES
STRONGER ECONOMY

NDEP will be hosting Air Quality Impacts Analysis 2 - Sales Projections and ZEV Credit Requirements

Tentatively Scheduled for May 2021

More details to follow.
Contact

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