

Clark County's Nevada Support of
Clean Cars Nevada Initiative
Proposed Regulation R093-20:
LEV and ZEV Standards

September 1, 2021

State Environmental Commission meeting

NAAQS Designation Background

Pollutant	Status
Ozone (O3)	Las Vegas Valley (LVV) is “marginal nonattainment area” for 2015 O3 NAAQS Portion of County is “maintenance area” for 1997 O3 NAAQS
Particulate Matter (PM)	LVV is “maintenance area” for PM10 County is “attainment/unclassifiable” for PM2.5
Carbon Monoxide (CO)	LVV is “maintenance area” for CO
Nitrogen Dioxide	“attainment/unclassifiable”
Sulfur Dioxide	“attainment/unclassifiable”
Lead	“attainment/unclassifiable”

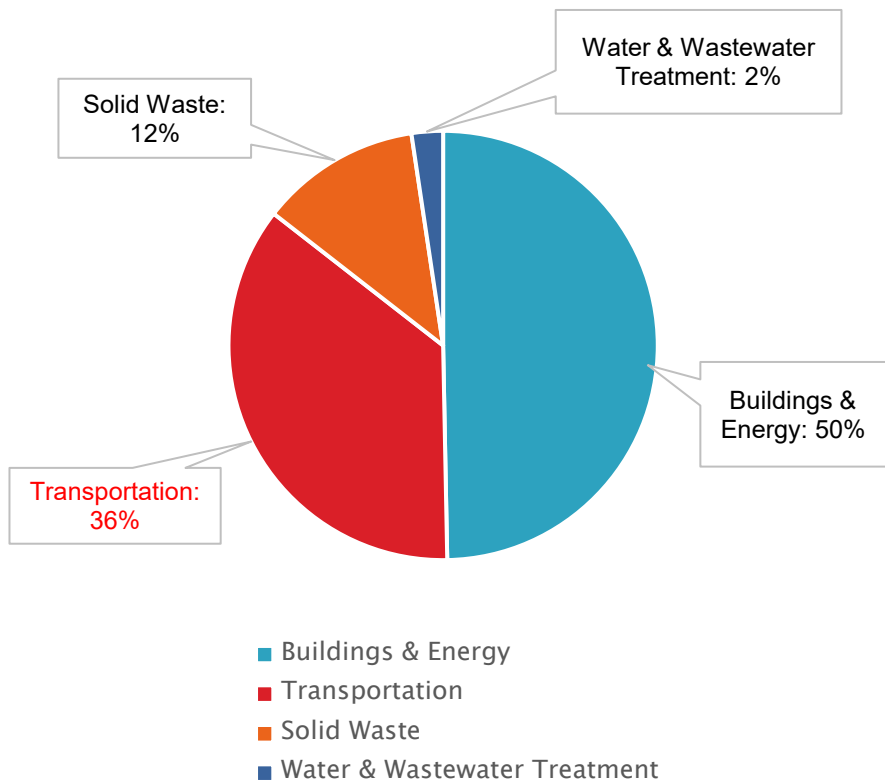
Vehicle Emission Impacts in Clark County

- Transportation sector is largest contributor of greenhouse gas (GHG) emissions in NV
- Clark County:
 - 60% of light-duty vehicles registered in NV are in Clark County
 - Transportation sector accounted for 36% of County's 2019 GHG emissions. Passenger vehicles make up 50% of those
 - Onroad mobile sources (e.g. trucks, buses, passenger vehicles, and motorcycles) accounted for 39% of O₃ and 7% of PM_{2.5} emissions in 2017
- Proposed LEV/ZEV program will reduce light-duty and medium-duty vehicle emissions

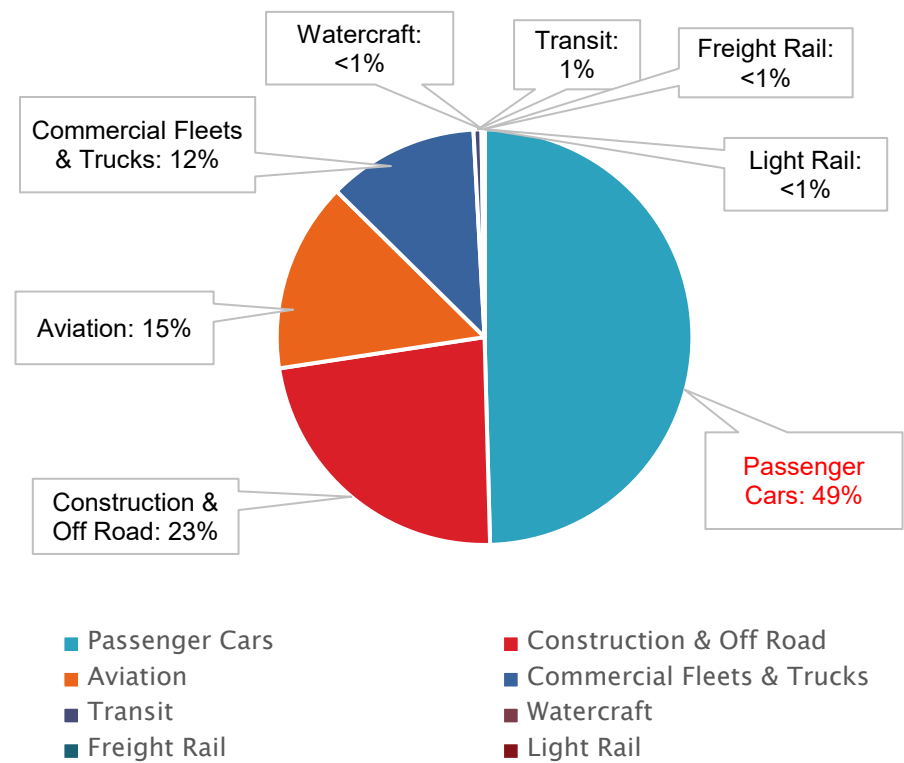
GHG Emissions by Sector/Source

- GHG emissions (MTCO₂e) in 2019

By Sector

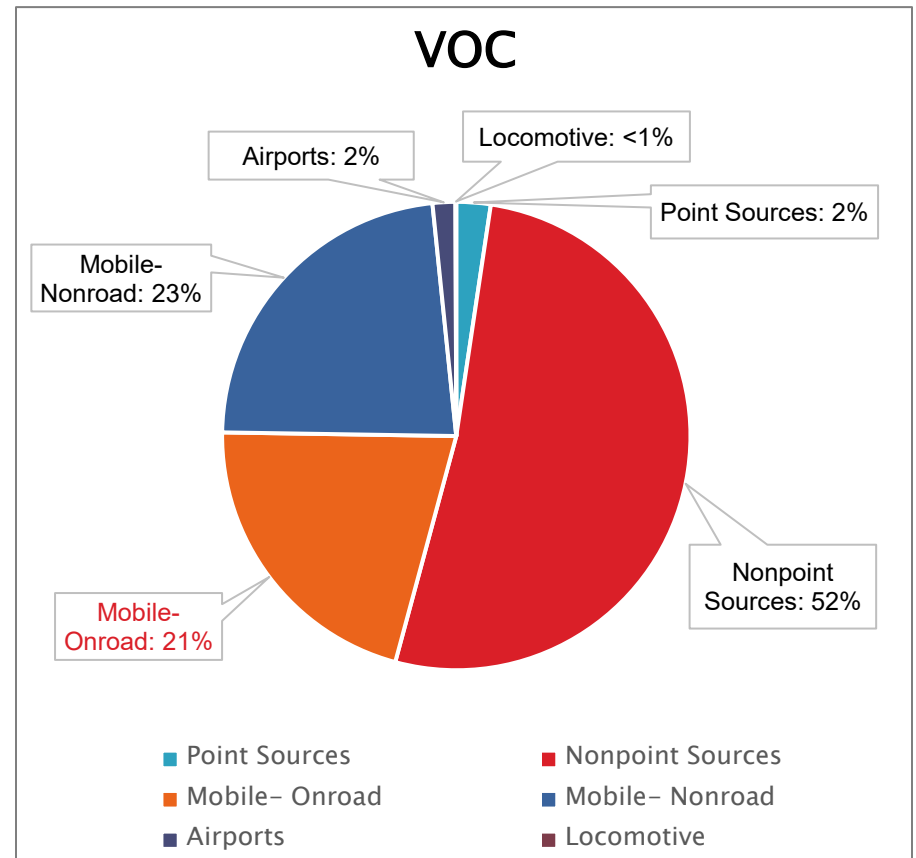
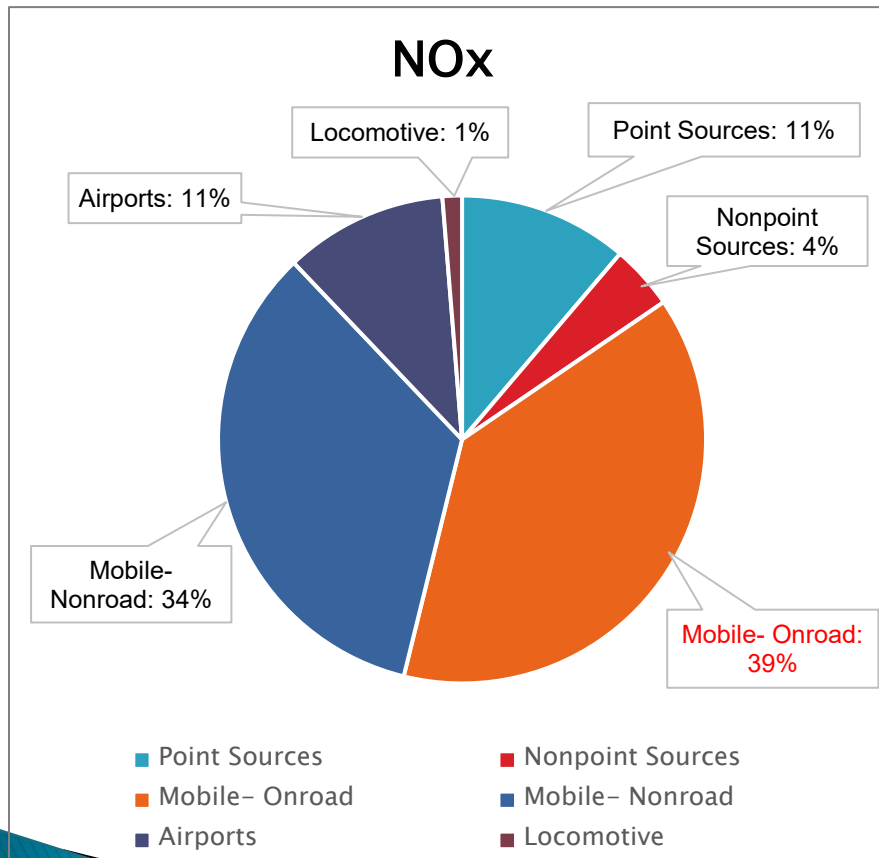


By Source



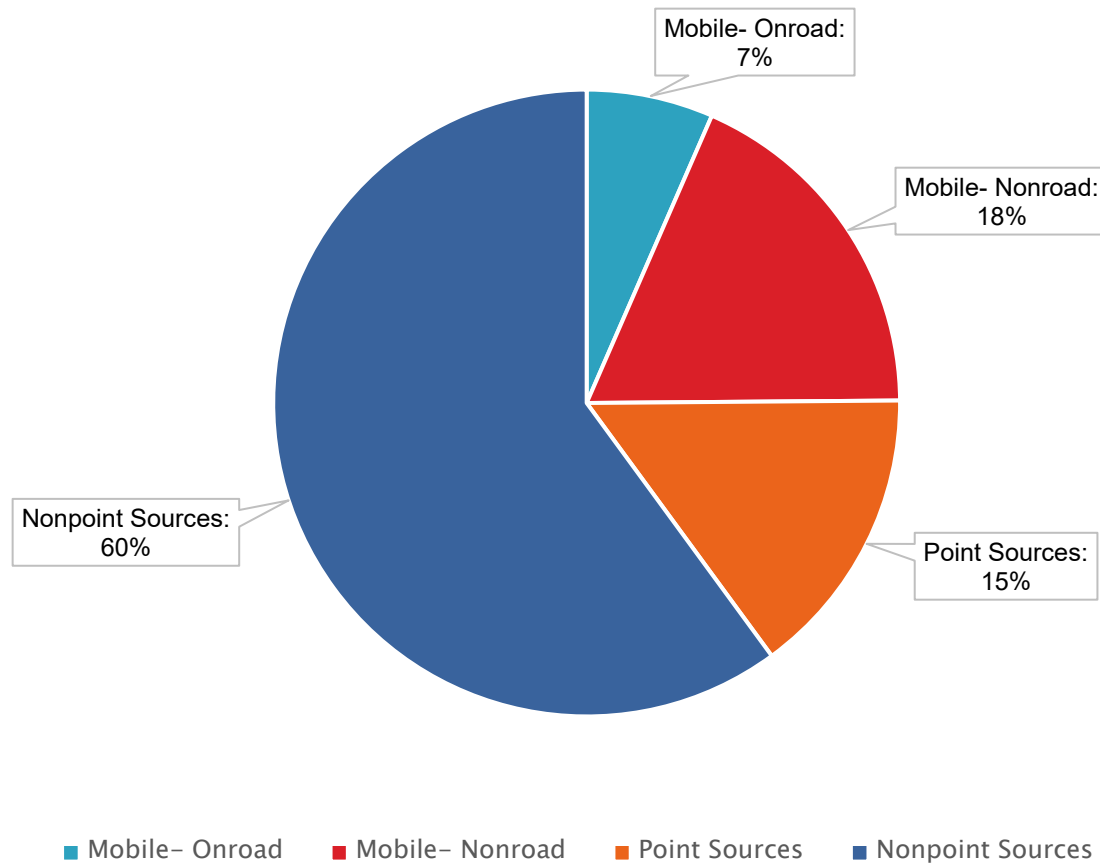
O3 Precursor Emissions by Source Category

- Average Ozone Season weekday emissions (tpd) in 2017



PM2.5 Emissions by Source Category

- PM2.5 emissions (tpy) in 2017



Need for Electric Vehicles

- EVs estimated to make up *only* 0.37% of passenger vehicle miles in County
- EV GHGs per mile are less than half that of the average internal combustion vehicle
 - Will continue to drop as renewables are added to electric grid
- Passenger vehicles in County make up the equivalent of 12% of NV's 2016 GHG Inventory
 - Must be addressed for the NV to meet its GHG targets
- Average age of passenger vehicle in U.S. is 12 years old
 - Without rapid transition to EVs, turning over the entire fleet will be difficult in medium to long term

Program Benefits to Clark County

- Significant reduction in GHG and criteria pollutant emissions
- Improved NAAQS compliance (particularly Ozone and PM_{2.5})
- Will help County meet its climate action goals
- Reduced vehicle emissions = cleaner air and better health and environment for County residents

In Summary...

- *Clean Cars Nevada* will put Clark County and the State of Nevada on a successful path to a cleaner and healthier future

STATE ENVIRONMENTAL COMMISSION

Clean Cars Nevada Initiative

Permanent Regulatory Petition R093-20

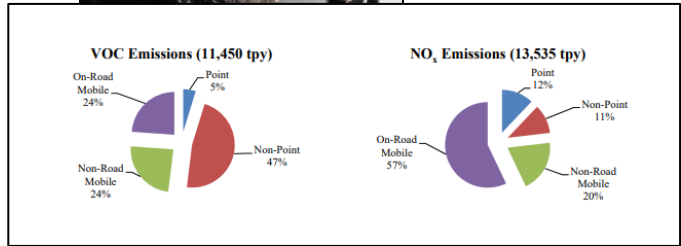
LEV and ZEV Standards

Washoe County
Air Quality Management Division
September 1, 2021



Air Quality Management Division

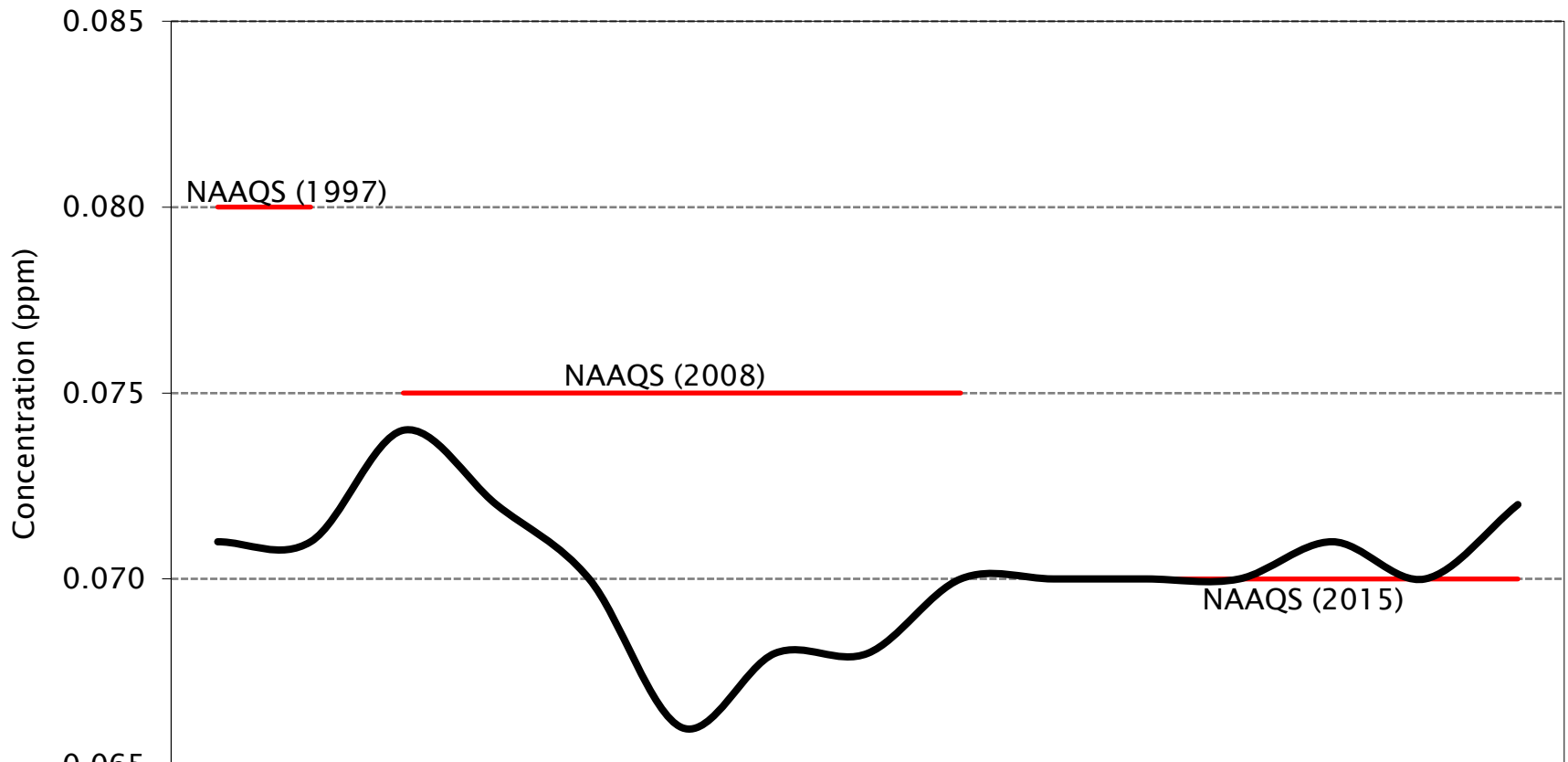
- The Air Quality Management Division (AQMD) implements clean air solutions that protect the quality of life for the citizens of Reno, Sparks, and Washoe County through community partnerships along with programs and services such as air monitoring, permitting and compliance, planning, and public education



National Ambient Air Quality Standards

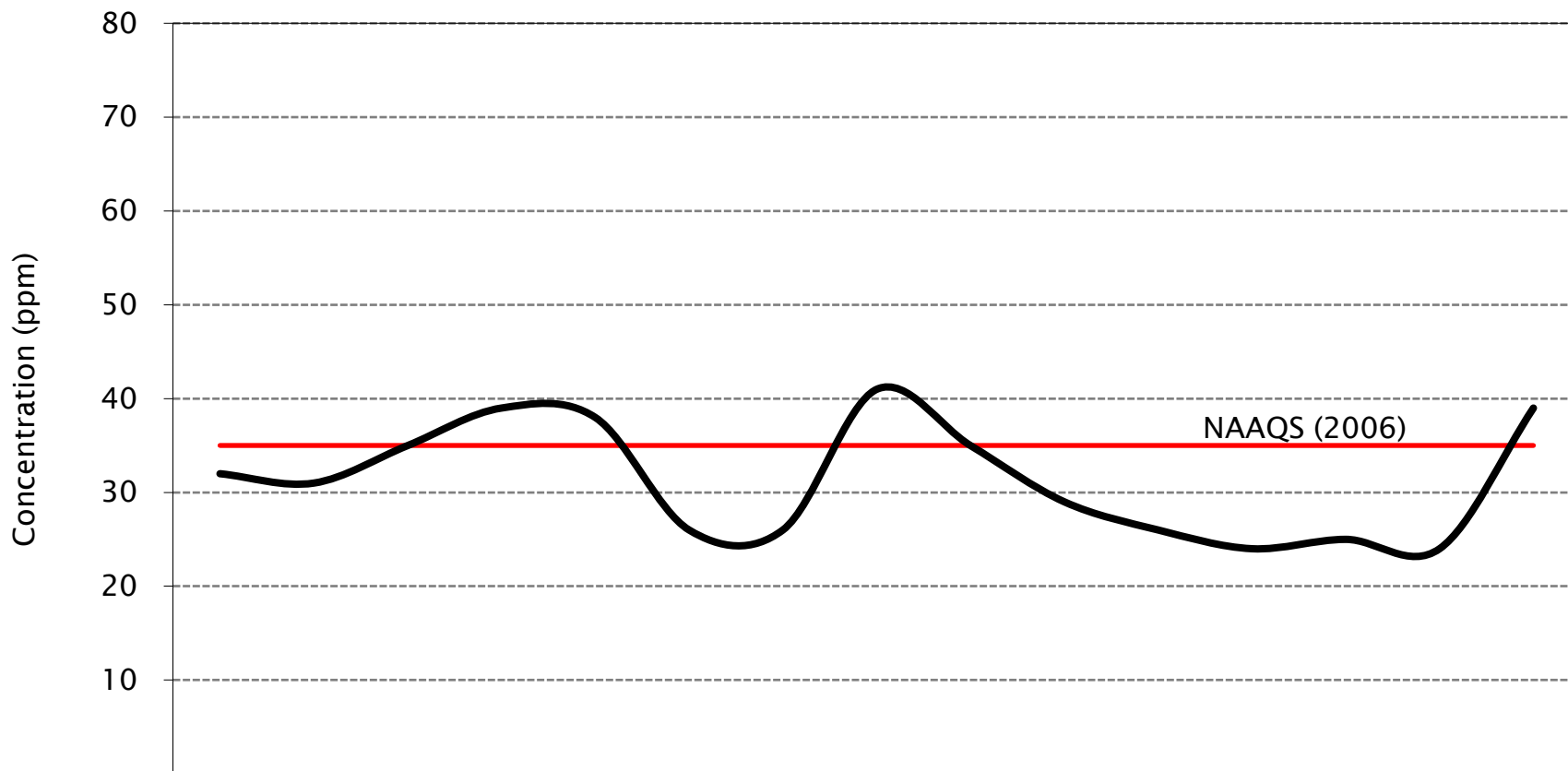
Pollutant	Averaging Time	Level	Washoe County Design Value (2020)
Ozone	8-hour	0.070 ppm	0.072 ppm
PM _{2.5}	24-hour	35 ug/m ³	39 ug/m ³
	Annual	12 ug/m ³	8.3 ug/m ³
PM ₁₀	24-hour	150 ug/m ³	1.7 expected exceedances
Carbon Monoxide	8-hour	9 ppm	1.8 ppm
	1-hour	35 ppm	2.4 ppm
Nitrogen Dioxide	1-hour	100 ppb	46 ppb*
	Annual	53 ppb	12 ppb*
Sulfur Dioxide	1-hour	75 ppb	3 ppb*
Lead	3-month	0.15 mg/m ³	n/a

Ozone Trend (2006 – 2020)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
— NAAQS	0.08	0.08	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.070	0.070	0.070	0.070	0.070	0.070
— Design Value	0.071	0.071	0.074	0.072	0.070	0.066	0.068	0.068	0.070	0.070	0.070	0.070	0.071	0.070	0.072

PM2.5 Trend (2006 – 2020)



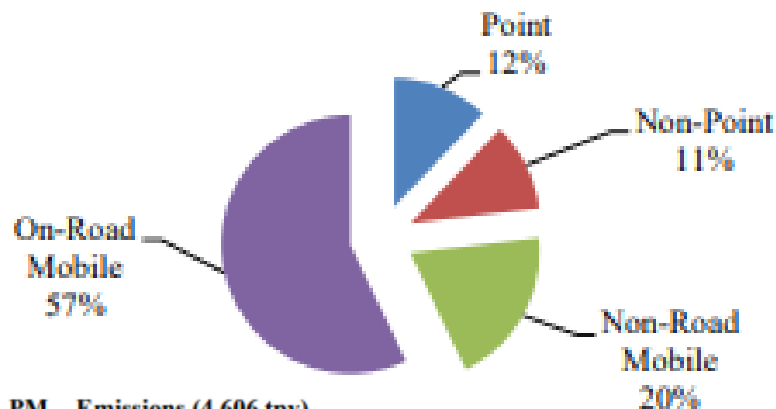
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NAAQS	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Design Value	32	31	35	39	38	26	26	41	35	29	26	24	25	24	39



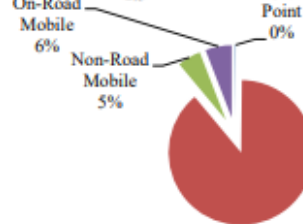
Emissions from the Transportation Sector

- The transportation sector has historically and continues to be the largest category of ozone precursor emissions in the county.
- Specifically, emissions from the transportation sector account for nearly 60% of the emissions that contribute to the formation of ozone.

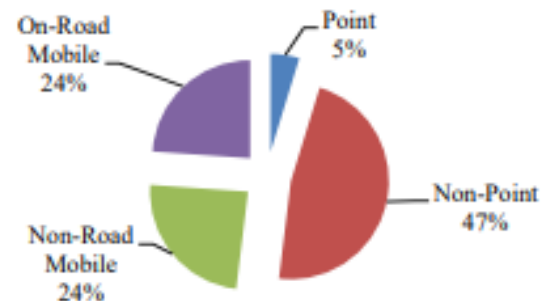
NO_x Emissions (13,535 tpy)



PM_{2.5} Emissions (4,606 tpy)

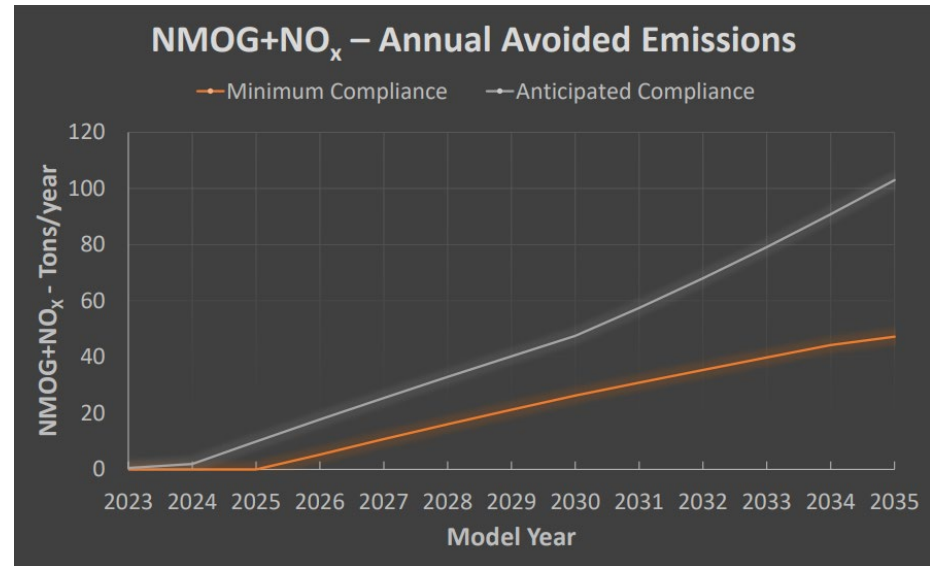


VOC Emissions (11,450 tpy)



Benefits of Clean Cars Nevada

- If adopted, Clean Cars Nevada will result in significant reductions of criteria pollutants that contribute to the formation of ozone (Benefits nonattainment areas and public health).
- Clean Cars Nevada will help foster the more widespread availability of new BEVs and PHEVs in the NV market (helps improve consumer choice)



Summary

- Current ambient air quality monitoring data indicates that Washoe County is in violation of National Ambient Air Quality Standards (NAAQS) for ozone, PM2.5, and PM10.
- The transportation sector is the highest contributor of emissions leading to the formation of ozone
- Any strategy aimed at attaining the NAAQS must include reduction of emissions associated with the transportation sector.
- As the county does not have the authority to set vehicle standards, we must rely on state and federal actions to reduce emissions from the transportation sector.
- Adopting Clean Cars Nevada is critical to attaining the NAAQS and protecting the health and quality of life for the residents of Washoe County.



Conclusion

- The Washoe County Air Quality Management Division is in support of the *Clean Cars Nevada* initiative, Permanent Regulatory Petition R093-20 and the proposed changes to NAC 445B to include LEV and ZEV standards.





Health Benefits of Clean Cars

State Environmental Commission

September 1, 2021



Health Organizations Support Clean Cars Nevada



Nevada Chapter





State of the Air



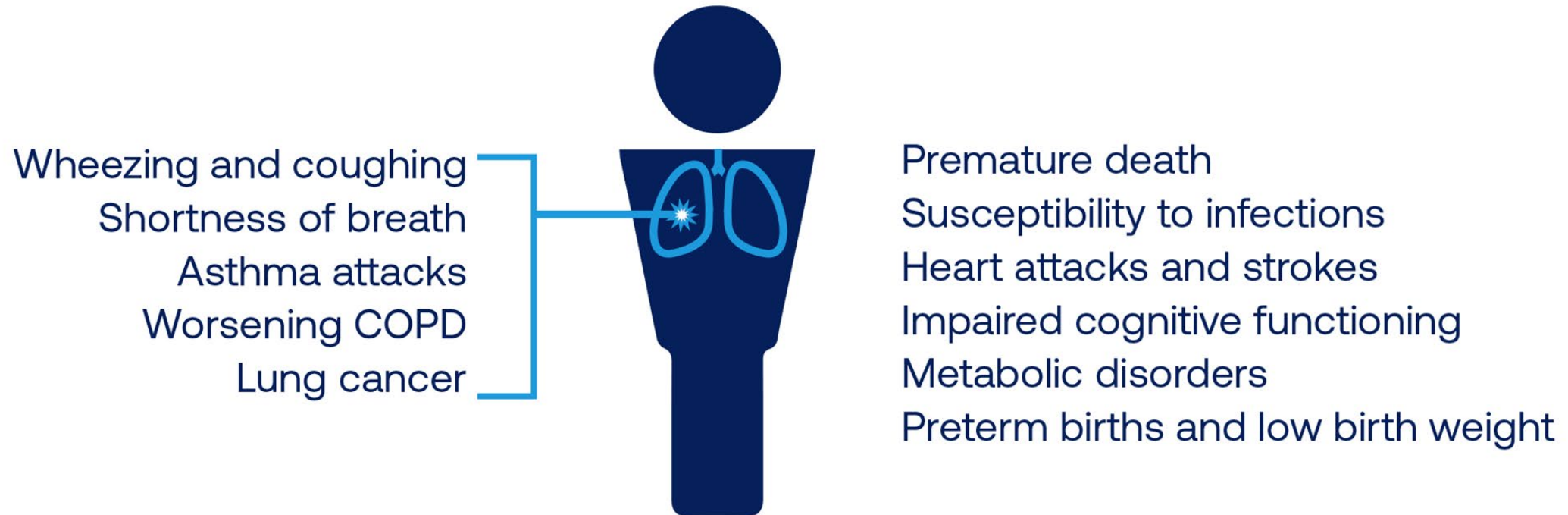
More than 4 in 10 Americans live in places with unhealthy levels of air pollution.



People of color are 3 times more likely than white people to live in a county with 3 failing grades.

Health Impact of Air Pollution

Air pollution can harm children and adults in many ways.



Who is most at risk from air pollution in Nevada?



- **674,836** children
- **473,034** adults over the age of 65
- **53,092** children and teens with asthma
- **220,140** adults with cardiovascular disease
- **1,570,635** people of color
- **372,295** people living in poverty

**Everyone knows someone
at risk from pollution.**

Nevada Rankings

Las Vegas

12th 
in most unhealthy
ozone days.

25th 
in unhealthy particle
pollution days.

Reno

28th 
in most unhealthy
ozone days.

21st 
in unhealthy particle
pollution days.

Health Benefits of Avoided Emissions in 2050



6,300

Premature Deaths
Avoided

93,300

Asthma
Attacks
Avoided

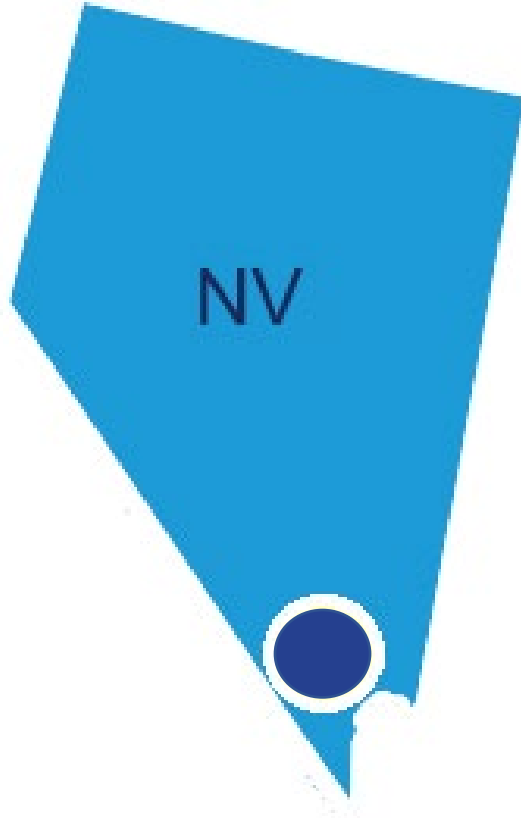
416,000

Lost
Work Days
Avoided

State-Level Results due to emission reductions in 2050

Annual Nevada
Health Benefits

\$745 Million



Annual Las Vegas
Health Benefits

\$615 Million



Questions?

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Angie Dykema
NV Representative, SWEEP

September 1, 2021





Who Is Supporting Clean Cars Nevada?

Clean Cars Nevada is supported by a diverse coalition of more than 80 business leaders, conservationists, science and public health advocates, labor representatives, community organizations, local governments, and consumer groups that share a commitment to improving air quality and addressing climate change through this initiative.





Why Nevadans Want Clean Cars

- Economic benefits & cost savings
- More consumer choices
- Clean air and public health
- Reducing greenhouse gas emissions & meeting our climate goals





Nevada Clean Cars Initiative Stakeholder Presentations

September 1, 2021





About Chispa Nevada

Chispa Nevada, a program of the League of Conservation Voters, builds the power of low-income Latinx families to achieve climate justice, community health, and environmental protection while insisting on accountability from polluters and decision makers.

Due to decades of environmental injustices, low-income people of color in Nevada have disproportionately borne the burdens of air pollution, breathing dirtier air that harms our health and raises financial costs.

Our members care deeply about addressing equity and environmental justice as a part of solutions to the climate crisis. Chispa Nevada supports the Clean Car initiative.



Nevada's Latinx community supports electric vehicles

Nevada Latinxs overwhelmingly support electric transportation as a way to clean up our air, fight climate change and protect our environment, and want ways to access it.

In a community survey we conducted of 271 members in December 2020, over **two -thirds said they have considered buying an electric vehicle.**

The community sees EVs as an opportunity to save money on gas and make an environmentally friendly choice, but they have questions about how and where they would charge an electric vehicle (as well as how to afford and maintain one).

In addition, **over 94 percent of our members said they want to see EV charging stations in our communities**



Public Health and Electric Vehicles

Vehicle emissions are not just accelerating the climate crisis but they have also created a public health crisis for families across Nevada.

The most recent [report card by the American Lung Association](#) gave Clark and Washoe counties “Fs” for their air quality when it comes to ozone pollution. **The report also shows people of color are 3x more likely to breathe the most polluted air.**

The climate crisis is a public health crisis and electric vehicle adoption in low income and historically underserved communities will significantly change the impact of pollution in our communities.



Equity and Clean Cars Nevada

Chispa Nevada supports the shift towards zero emission transportation, but EVs carry a high upfront cost and are largely unavailable in our community.

This is the case in Nevada and across the country even as our communities face the worst consequences of pollution and climate change.

As the state sets up the Clean Cars Nevada program, Nevada must ensure that low income families have the opportunity to purchase electric vehicles.

The state must also ensure that low income and historically underserved communities have charging infrastructure built in our communities so families whether they own a home or rent -- have the option of going electric.

We will not meet the ambitious goals of this program if EVs are inaccessible to Nevadans of all income levels.



Our Recommendations for Clean Cars Nevada and Beyond

Provide financial assistance at the point of sale to help low income Nevadans purchase electric vehicles or make upgrades to their current vehicle to meet new low emission requirements.

Develop an affordable, used EV market and ensure all vehicle options are sold in the state. Nevada must diversify its electric vehicle market by considering the mobility needs and desires of all community members. This includes ensuring affordable used and leased vehicle options are available.

Support the availability of charging infrastructure in low income communities of color, which will be critical as the state implements SB 448 and its commitment to build charging infrastructure in historically underserved communities.



Our Recommendations (continued)

Encourage local government fleets to deploy EVs in low-income communities of color. This can be in the form of electric school buses, electric refuse trucks, municipal fleets or public transit.

Invest in building community awareness about EVs. The state must develop a culturally and linguistically competent outreach program to educate the Latinx community.

Address the impacts of mining on local ecosystems. As the state encourages lithium mining to meet state and regional climate goals, it must also hold mining companies accountable for the environmental impacts of their operations.



Thank You.





NV Energy Electric Vehicle Programs

September 1, 2021



NV Energy

Current Electric Vehicle Program



EV infrastructure market development

- **2013** – Charging Station Shared Investment Program – Complete
- **2015** – Nevada Electric Highway Partnership with Governors Office Of Energy – Phase I complete, Phase II to be complete by Q2 2021
- **2017** – Electric Vehicle Infrastructure Demonstration Program - Active
- **2019** – Electric School Bus Program – Active
- **2021** – Senate Bill 448



Current Electric Vehicle Offerings

- Electric Vehicle rates
 - Time of use rates (residential, multi-family, commercial)
 - Commercial charging rider for DC fast chargers
- Infrastructure and vehicle incentives
 - Residential
 - Multifamily
 - Lower income multi-family – *GOE Partnership*
 - Fleet, Public, Workplace
 - Governmental – *GOE Partnership*
 - Electric School Bus (infrastructure and vehicle)
 - Nevada Electric Highway – *GOE Partnership*
 - *Active January 2022 - Lower income electric vehicle incentive*



SB448 – Transportation Electrification Plans Timeline



Electric Vehicle Infrastructure Demonstration Program (“EVID”)

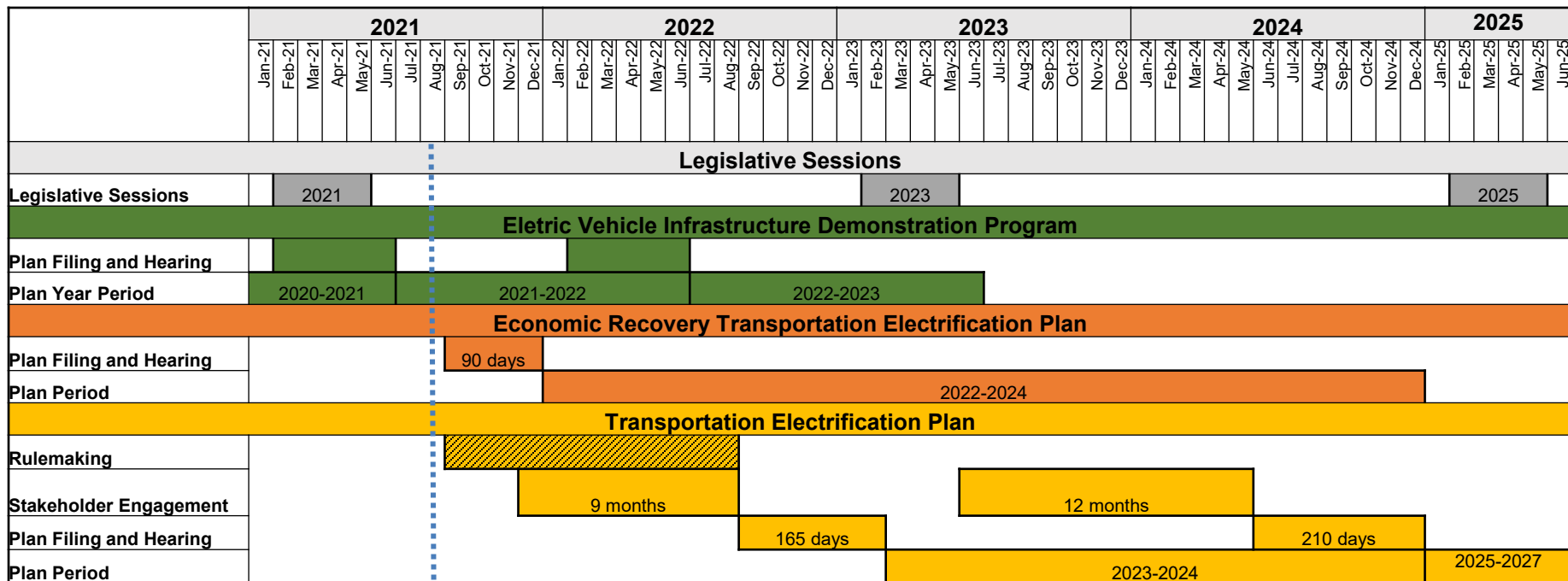
- Repeal annual plan filing requirement after February 1, 2022. Final year of program will be July 2022 – June 2023

Economic Recovery Plan

- File on September 1, 2021. Work to begin in 2022

Transportation Electrification Plan

- File with Distributed Resource Plan update, on or before September 2022



SB448 - Economic Recovery Transportation Electrification Plan (Sec. 49)



Accelerate Transportation
Electrification

Economic Recovery & Job
Creation Benefits

Prioritize Historically
Underserved Communities

Programs:



**Interstate Corridor
Charging**

Increase the availability of public electric vehicle *charging infrastructure along Nevada's highways* in the service territory of the electric utility and to *support electric vehicle tourism traffic to Las Vegas, the Reno-Tahoe area and across the State.*



Urban Charging

Increase access to public electric vehicle charging infrastructure in metropolitan areas of this State, *particularly for customers who are unable to charge vehicles at their home or business.* Must also be designed to address the needs of tourists, delivery services and businesses that require access to public charging for fleet electrification.



**Public Agency
Electric Vehicle
Charging**

To *serve the public, workplace and fleet electric charging needs of federal, state and local governmental agencies*



**Transit, School Bus &
Transportation
Electrification**

To serve the electric vehicle charging infrastructure, energy supply and energy storage needs of *transit agencies, metropolitan planning organizations, the Department of Transportation, public school districts and nongovernmental commercial customers*



**Outdoor Recreation
and Tourism**

To serve the electric vehicle charging *infrastructure, energy supply and energy storage needs of the tourism and outdoor recreation economy*

Plan Allocations:

- **40% dedicated to historically underserved communities**
- **20% dedicated to investments in the Outdoor Recreation and Tourism Program**
- **20% dedicated to incentives for behind-the-meter investments in electric vehicle charging infrastructure or stations**

Timeframe: January 1, 2022 – December 31, 2024

Investment: Not to exceed \$100 million



 **NV**Energy