



Clark County Department of Environment
and Sustainability

Robert Burgy,
Climate and Sustainability Program Manager
Clark County Department of Environment and
Sustainability

09.30.25



Southern Nevada Clean Cities Coalition Fleet Manager Roundtable



Today's Topics

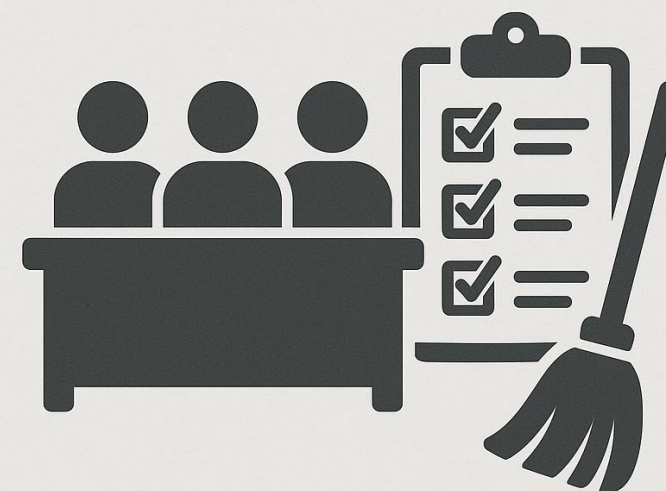
Welcome and
Introduction to Southern
Nevada Clean Cities
Coalition

Nevada Clean Energy
Fund

US Vehicles Emissions
Standards

NV Energy Fleet
Managed Charging

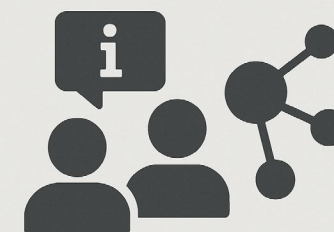
City of Henderson Fleet
Management



MEETING HOUSEKEEPING



REFRESHMENTS



NETWORKING AND
INFORMATION
SHARING

***Each Presenter will leave time
for questions.***

MAKE SURE TO SIGN IN 😊





Agenda

1. Sustainability Moment
2. What is ALL-IN Clark County?
3. What is Clean Cities and the Southern Nevada Clean Cities Coalition?
4. Legislative Updates

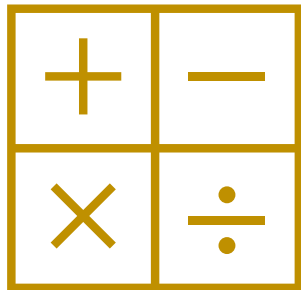


Sustainability Moment: Reducing Idling and Pollution

Idling and its health impacts



Engine Idling releases fine particulate matter (PM 2.5) that can enter the lungs and bloodstream.

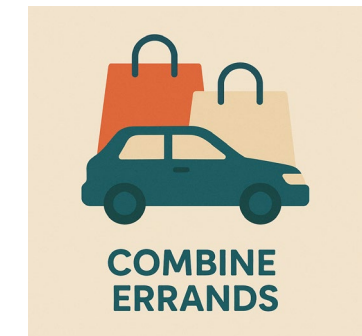
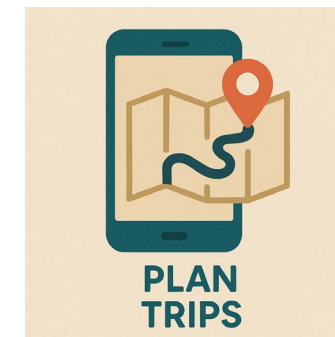
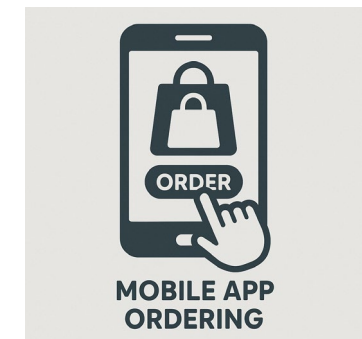


Idling vehicles can emit 20 times more pollution than those traveling at 30 miles per hour



Contributes to respiratory issues, cardiovascular diseases, and decreased lung function growth in children

Strategies to Reduce Idling and Idling Exposure

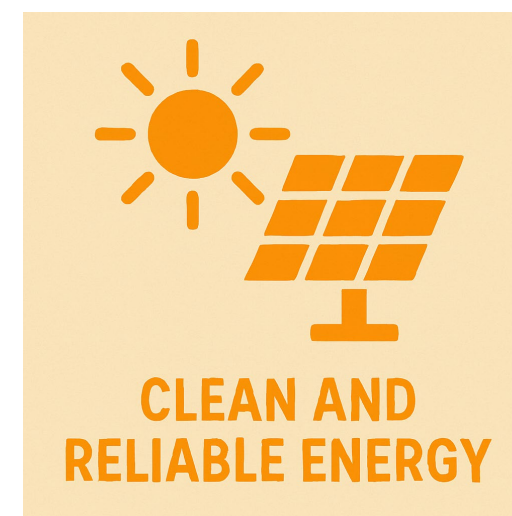




What is ALL-IN Clark County?



CLARK COUNTY, NEVADA
**COMMUNITY SUSTAINABILITY
& CLIMATE ACTION PLAN**





What is ALL-IN Clark County?



SUSTAINABILITY NOW

All-In for a Climate-Smart 2025

Join us each month for our virtual webinar series to learn, connect, and take action on sustainability!
EACH WEBINAR WILL BE LIVESTREAMED FROM 1:00 – 1:30 PM PST.

WEDNESDAY, JANUARY 22 SUSTAINABLE NEW YEAR'S RESOLUTIONS <i>Tips for an eco-friendly start to the year.</i>	TUESDAY, FEBRUARY 4 PERSONAL ELECTRIFICATION PLANNER <i>Creating personalized plans for upgrading homes and vehicles to all-electric options.</i>	WEDNESDAY, MARCH 26 MINIMIZE OUTDOOR WATER USE <i>Remove, limit, and create a sustainable, Water Smart landscape.</i>
THURSDAY, APRIL 10 THE BENEFITS OF URBAN FORESTRY <i>Highlight the importance of trees in urban areas for Arbor Day.</i>	TUESDAY, MAY 20 PREPARING FOR SUMMER'S EXTREME HEAT <i>Strategies for staying safe during heatwaves.</i>	MONDAY, JUNE 9 MONSOON SEASON PREPAREDNESS <i>Tips for weathering the monsoon season safely and sustainably.</i>
MONDAY, JULY 28 SUSTAINABILITY ON CAMPUS <i>An overview on sustainability initiatives at UNLV.</i>	THURSDAY, AUGUST 14 MAXIMIZE YOUR ENERGY EFFICIENCY <i>Techniques for reducing energy use and saving costs.</i>	TUESDAY, SEPTEMBER 16 CLEAN CITIES COALITION <i>Advancing sustainable transportation in Clark County.</i>
WEDNESDAY, OCTOBER 15 CLIMATE ADVOCACY <i>Engaging local communities in actionable climate solutions.</i>	MONDAY, NOVEMBER 10 THE IMPORTANCE OF RECYCLING <i>Engage audiences for America Recycles Day with innovative recycling practices.</i>	THURSDAY, DECEMBER 18 REFLECTION ON THE YEAR'S SUSTAINABILITY ACHIEVEMENTS <i>Recap and Goal-setting for the New Year.</i>

TO VIEW THE LIVESTREAM PLEASE RSVP AT: AllinClarkCounty.com/Events





What is Clean Cities?



What is Clean Cities ?



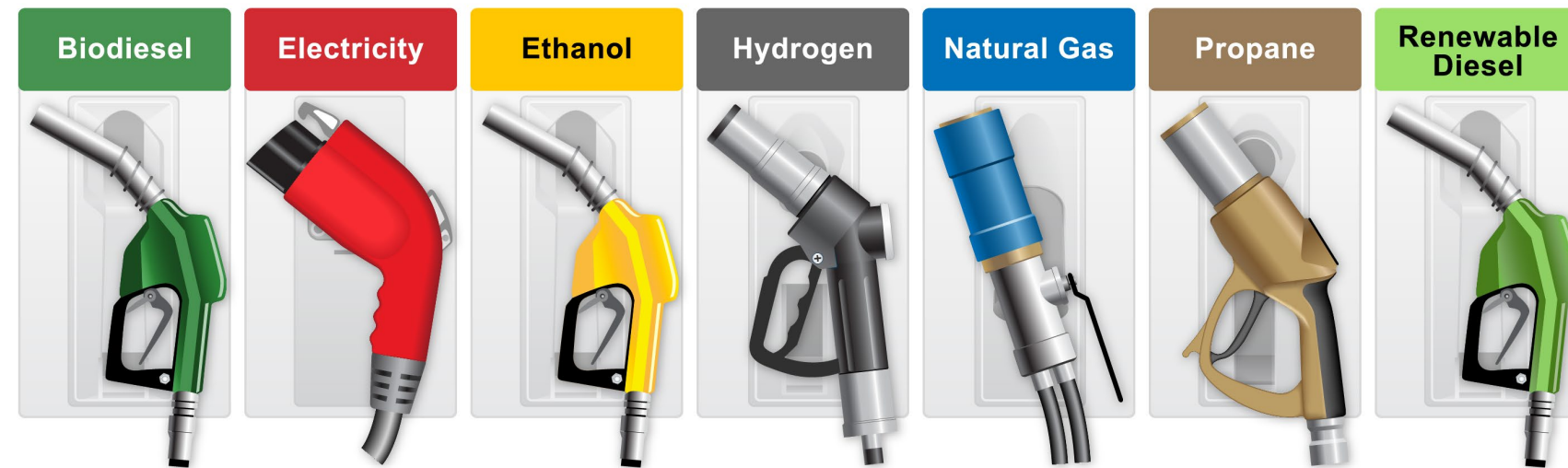
What is Clean Cities?



- A **national network** organized by the U.S. Department of Energy (DOE)
- Established in 1993
- Purpose: **Reduce petroleum fuels**
 - Approved alternative fuels
 - Idling reduction



What is Clean Cities ?



On-Road



**Off-Road, Air,
Marine, Rail**



What is Clean Cities ?





What is the Southern Nevada Clean Cities Coalition?



What is the Southern Nevada Clean Cities Coalition? SNCC

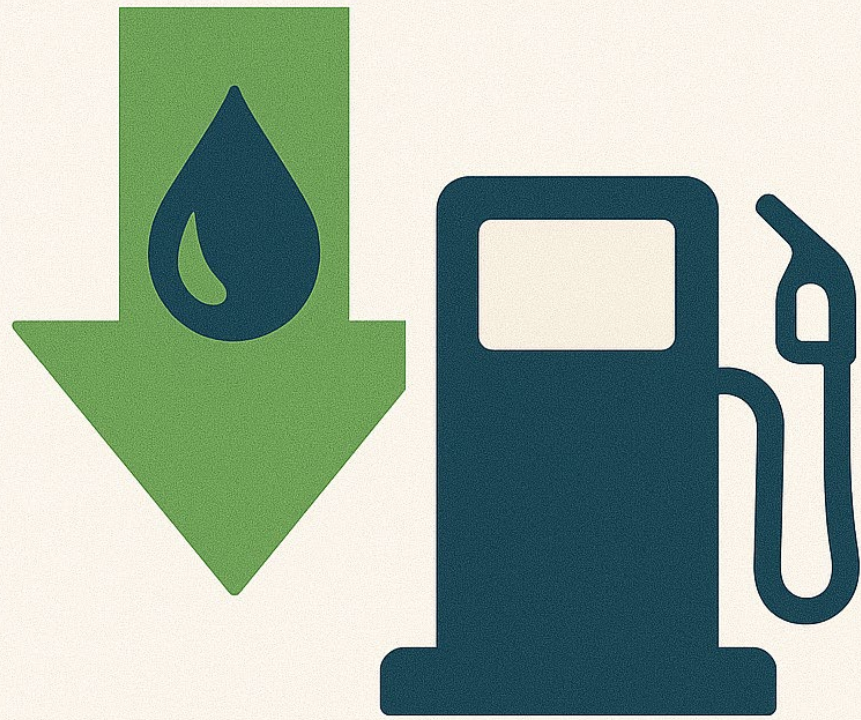


- Established in October 2022
- First coalition to go through the **apprenticeship** process under new DOE guidelines (2024)
- **Community space** for sustainable transportation
- More than **160 members**





What are the Goals and Tactics of the SNCC?

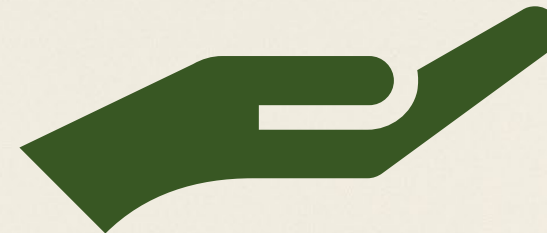


**Petroleum Fuel
Use Reduction**

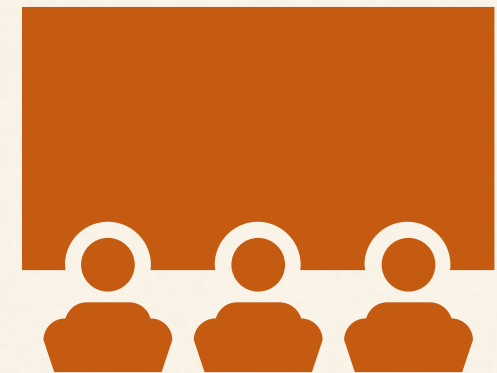
**OUTREACH
AND
EDUCATION**



**SUPPORT
AND
ASSISTANCE**



**DEDICATED
PROG-
RAMMING**



Example Programming!



MOVIE NIGHT
at the Drive In

Join the Southern Nevada Clean Cities Coalition Celebration on September 20th, 2025, at the West Wind Drive-In Movie Theatre as we celebrate our designation into the Department of Energy network with a fun evening watching Migration — a hilarious, heartwarming adventure/comedy perfect for all ages!

Parking and Event Opens	4:30 PM
Movie Start Time	30 minutes after sunset

WEST WIND DRIVE-IN MOVIE THEATRE
4150 W Carey Ave
North Las Vegas, NV 89032

LIMITED SPOTS AVAILABLE
—first come, first served
(no RSVP needed)



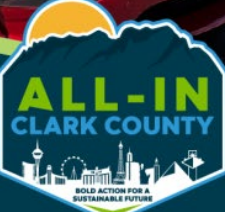
JOIN US FOR
NATIONAL DRIVE ELECTRIC MONTH!



**Plugged-In:
EV Ride & Drive Event**

**September 27, 2025
6:00 PM – 8:00 PM**

**Silverado Ranch
Community Center**



JOIN US!
GLOW RIDE

Join All-In Clark County and RTC Bike Share, for a glowing evening ride through Downtown Las Vegas in celebration of National Drive Electric Month!
The ride will begin and end at The Center, taking participants on a vibrant route through DTLV.

🕒 **Saturday,
October 4, 2025**

📅 **5:00 PM – 7:30 PM**

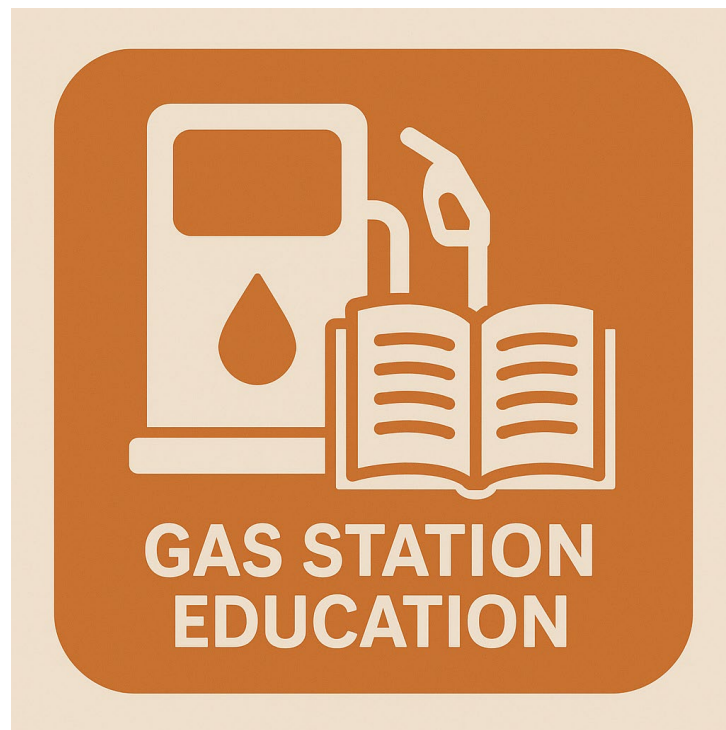
📍 **The Center –
401 S Maryland Pkwy,
Las Vegas, NV 89101**



RSVP ENCOURAGED:
PUBLICINPUT.COM/GLOWBIKE



Bonus! Industry Education and Programming





Legislative Updates



National Electrical Vehicle Infrastructure (NEVI) program



NEVI Program Paused



NEVI pause lifted with updated parameters



Nevada updated NEVI plan approved

<https://www.dot.nv.gov/mobility/alternative-fueling-infrastructure-plan>



**September 30,
2025**

EV Tax Credits Expire

Last day to finalize purchase agreements for federal EV tax credits.



**December 31,
2025**

**Clean Energy Project
Deadlines**

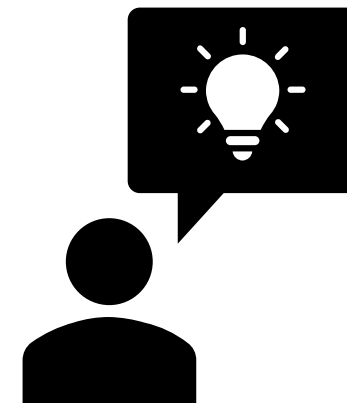
Home electrification, solar, and storage project incentives end.



June 30, 2026

**EV Charging
Infrastructure Credit
Ends**

Deadline to complete charging projects with federal tax credit.



Always consult a tax professional when making decisions regarding taxes, tax incentives, etc...



💡 TAKEAWAY FOR FLEETS

The end of clean vehicle credits and the shift toward traditional energy development may significantly affect fleet procurement and fuel strategy. Now is a key moment to reassess EV investment timelines, capitalize on full expensing for eligible fleet purchases, and anticipate potential volatility in fuel markets due to increased oil and gas activity.

<https://www.fleetio.com/blog/2025-one-big-beautiful-bill-fleet-impact>



Robert Burgy, Climate and Sustainability Program

Climate and Sustainability Program Manager

Clark County Department of Environment and Sustainability (DES)

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The Southern Nevada Clean Cities Coalition Fleet Manager Roundtable

09.30.25

**Southern Nevada Clean
Cities Coalition and
Southern Nevada Fleet
Association:
Sep 30 2025 Fleet
Manager Roundtable**

September 30, 2025

**Ishan Banerjee
Senior Manager, Investments
Nevada Clean Energy Fund**



Agenda

- A** Introduction to NCEF
- B** Federal tax credits
- C** Fleet Transformation and Charging loan products
- D** End-to-end applicant journey
- E** Capital stack scenarios

A About the Nevada Clean Energy Fund

The Nevada Clean Energy Fund (NCEF) is a 501(c)3 nonprofit organization, created by state legislation in 2017 to serve as the state's "green bank".

THE MISSION

Support a thriving,
affordable, and accessible
clean energy economy in
Nevada



THE NEED

Nevadans lack the
resources necessary to
access clean energy
opportunities, reduce
energy costs, and live in a
healthy environment and
climate

THE SOLUTION

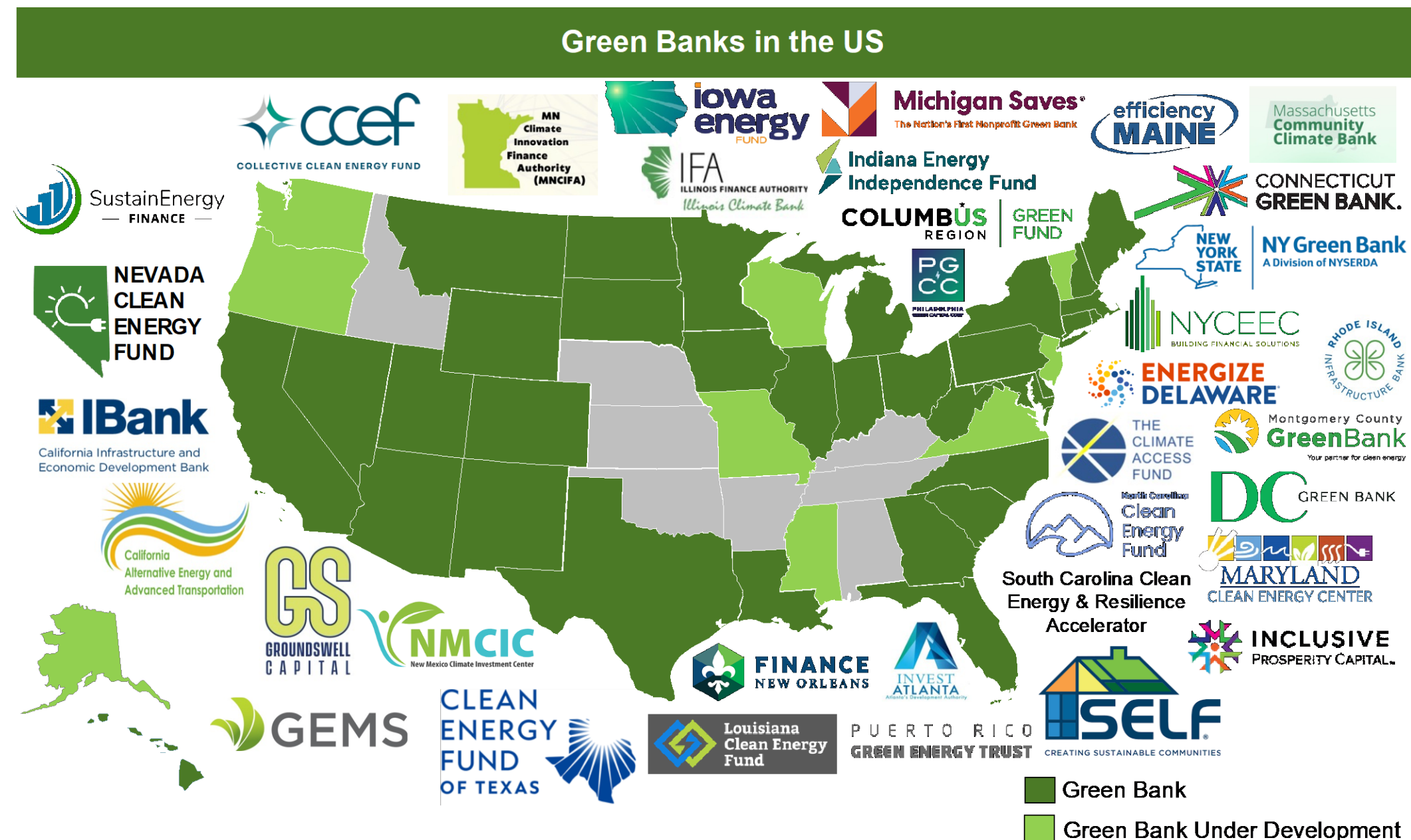
Provide access to capital
and technical assistance to
residents, affordable
housing, schools, Tribes,
nonprofits, and others in
Nevada for building
efficiency and
electrification, clean
vehicles, renewable
energy, and storage

THE IMPACT

Tackle climate change
Reduce energy insecurity
Advance energy justice
Improve air quality & health
Create quality jobs

Green Banks play an important role in implementing Federal Clean Energy & Climate Funds

- NCEF was created by state legislation in 2017 (SB 407, codified in NRS 701B) to serve as the state's "green bank."
- Green banks are mission-driven institutions that provide financing and technical assistance to accelerate clean energy and climate solutions for communities.



NCEF programmatic priorities to make clean energy accessible to Nevadans

- NCEF's programs provide clean energy financial and technical assistance to residents, Tribes, affordable housing, local businesses, schools, governments, and others in Nevada.
- These programs support clean energy measures such as building energy efficiency, clean vehicles, and solar and energy storage.



Single-Family
Homes



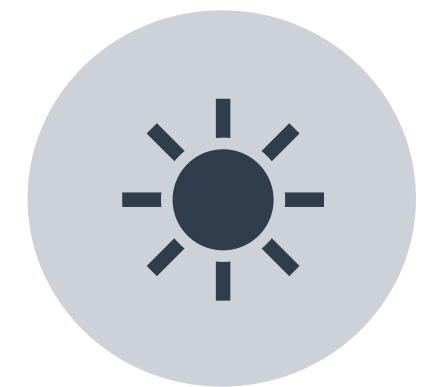
Multifamily
Homes



Commercial
Buildings



Vehicle
Fleets

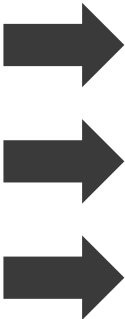


Tribal
Communities

B Several clean energy tax credits are changing or expiring

The One Big Beautiful Bill Act (OBBBA) signed into law July 4, 2025 changes or phases out several federal clean energy tax credits.

Household Measure	Tax Credit Amount
Weatherization (§25C)	\$1,200
Rooftop solar, battery storage, or geothermal heating (§25D)	30% of cost
New Electric Vehicle (§30D)	\$7,500
Used Electric Vehicle (§25E)	\$4,000
Electric Vehicle Charger (§30C)	\$1,000
Heat Pump Air Conditioner/Heater (§25C)	Up to 30% of the cost
Heat Pump Water Heater (§25C)	\$2,000
Electrical Panel (§25C)	\$600



Commercial Measure	Tax Credit Amount (up to)
Energy Efficiency (§45L) Energy Efficiency (§179D)	Up to \$5,000 per unit \$5/square foot
Solar, battery storage, or geothermal heating (§48E)	30%-\$70% of cost
Electric Vehicle <14,000 lbs (§45W)	\$7,500
Electric Vehicle >14,000lbs (§45W)	\$40,000
Electric Vehicle Charger (§30C)	30% of cost, not to exceed \$100k per charger

The above is intended to provide a summary of selected federal clean energy tax credits available and should not be interpreted as tax or legal advice.

One Big Beautiful Bill substantially changes Federal Clean Energy Tax Credits for all technologies

Affected Technologies	IRS Tax Code Section	Tax Credit Name	Affected NCEF Program/ Product
Solar (PV and thermal), energy storage (battery), geothermal (generation), hydro, wind	Section 48E	Technology Neutral Investment Tax Credit (ITC)	Solar for All and Commercial Buildings (PACE & non-PACE)
Building energy efficiency (lighting, HVAC, insulation) for multifamily properties	Section 45L	Energy Efficient Home Credit	Commercial buildings (PACE & non-PACE)
Building energy efficiency (lighting, HVAC, insulation) for commercial properties	Section 179D	Energy efficient commercial buildings deduction	Commercial buildings (PACE & non-PACE)
➔ Electric vehicle charging infrastructure	Section 30C	Alternative Fuel Vehicle Refueling Property Tax Credit	Fleet transformation
➔ Zero-emission vehicles	Section 45W	Commercial Clean Vehicle Credit	Fleet transformation

Use of Tax Credits depends on the technology and construction timing

Affected Technologies	IRS Tax Code	Ideal Scenario	Alternative #1 (less beneficial)	Alternative #2 (less beneficial)
Solar	Section 48E	Placed in service by 12/31/2025	Begin construction by 12/31/2025	Begin construction by 7/4/26
Energy storage (battery)	Section 48E	Begin construction by 12/31/2025	Begin construction by 1/1/2034	Begin construction by 1/1/2035
Geothermal (heat pump)	Section 48E	Begin construction by 12/31/2025	Begin construction by 1/1/2033	Begin construction by 1/1/2035
Building energy efficiency for multifamily properties	Section 45L	Housing unit must be rented/sold by 6/30/26	Not Applicable	
Building energy efficiency for commercial properties	Section 179D	Must begin construction before 6/30/26		
➡ Electric vehicle charging infrastructure	Section 30C	Must be placed in service by 6/30/2026		
➡ Zero-emission vehicles	Section 45W	Acquisition must take place by 9/30/2025		

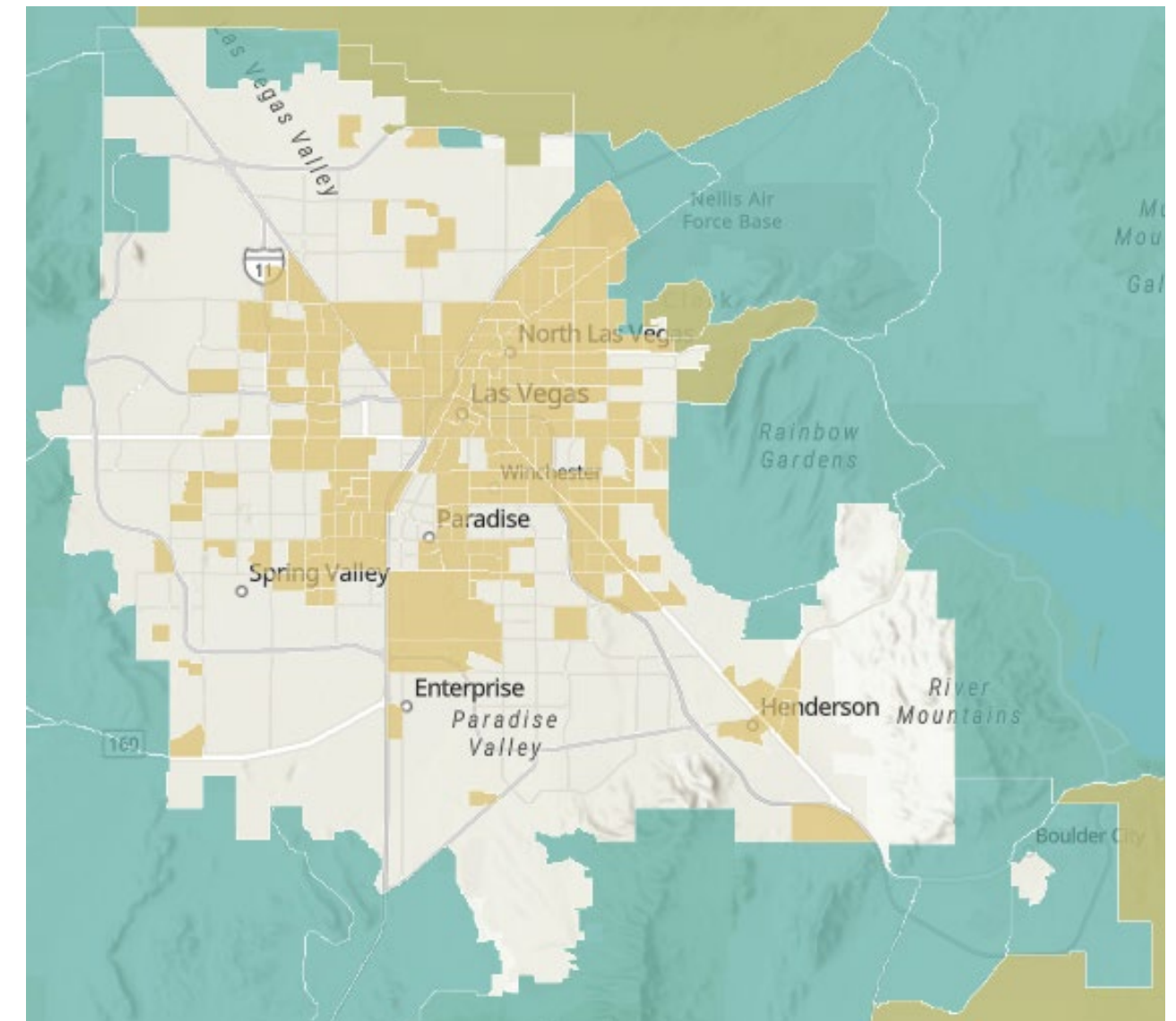
Tax Credit and Incentive Bridge Financing eligible use: Section 30C i.e., Alternative Fuel Vehicle Refueling Property Tax Credit

Terminated for property placed in service after 6/30/26.

Section 30C Credit Overview:

- **Eligible fueling equipment:** EV chargers and alternative refueling infrastructure using natural gas, propane, hydrogen, E85, or diesel fuel blends containing a minimum of 20% biodiesel
- **Eligible census tracts:** a map of eligible census tracts is here:
<https://experience.arcgis.com/experience/3f67d5e82dc64d1589714d5499196d4f/>
 - Low-income as defined under §45D(e)
 - Not urban as defined by the most recent decennial census
- **Tax credit amount:**
 - If prevailing wage & apprenticeship requirements are not met: lesser of 6% of infrastructure costs or \$100,000 per charging port
 - ➡ • If prevailing wage & apprenticeship requirements are met: lesser of 30% of infrastructure costs or \$100,000 per charging port

Tax credit eligible areas in Clark County



Additional resources:

- [Applicable filing deadlines](#)
- [Credit overview](#)

C NCEF's Fleet Transformation loan products

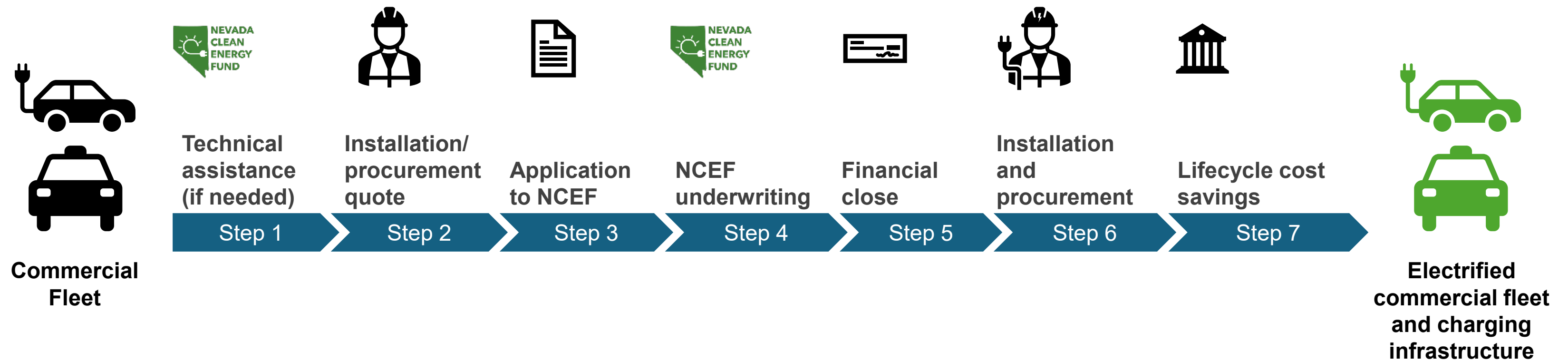
Program overview:

Nevada Clean Energy Fund (NCEF) is using EPA funds to deploy capital for fleet electrification and charging infrastructure across Nevada.

Eligible use	Charging infrastructure¹	Tax Credit and Incentive Bridge Financing²
Maximum use of NCEF capital	Up to \$500,000 per project, up to 100% project cost	Up to \$1,000,000 per project, up to 100% eligible cost
Interest rate and term	Up to 8% and up to 15 years	Up to 6% and up to 3 years
Repayment	Principal and interest	Bullet repayment of principal upon incentive or tax credit monetization. Interest and fees paid at end of bridge loan term.

1. C-PACE loan may also be possible. C-PACE is low-cost, long-term, fixed-rate, non-recourse, transferrable financing typically for energy-efficiency, renewable energy, and water efficiency projects. EV charging infrastructure may also be eligible in certain jurisdictions. Financing amount may not exceed twenty-five percent (25%) of the fair market value of existing buildings.
2. More details in next page

D End-to-end applicant journey takes four to six weeks



Next steps for project owners:

Reach out to ishan@nevadacef.org if you have questions and would like to submit applications.

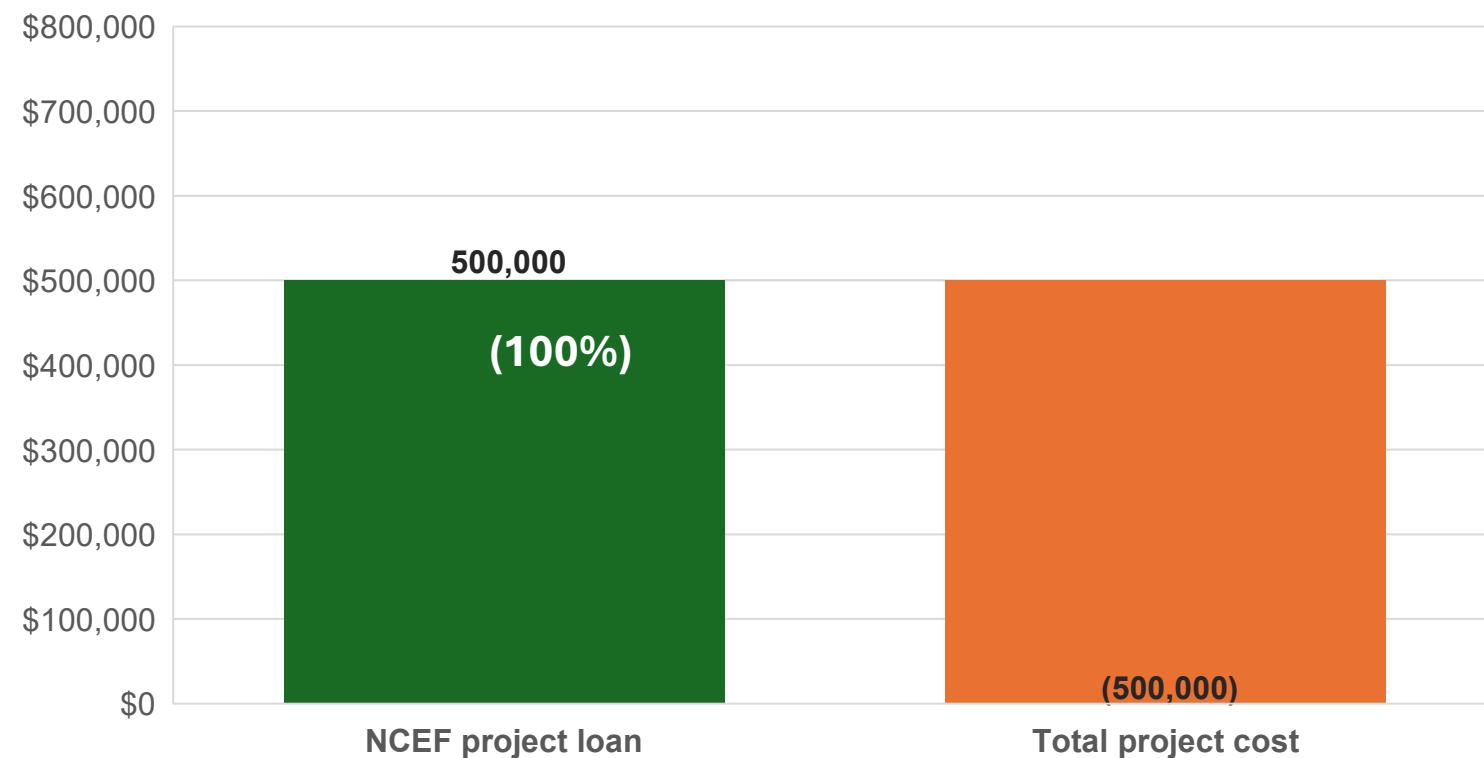
E Capital stack scenarios for EV charging infrastructure

Scenario 1: NCEF project loan

For a \$500,000 EV charging infrastructure installation (~3 DCFC chargers):

- NCEF's project loan can cover up to \$500,000.
- If project costs exceed \$500,000, applicants may have to raise additional capital internally or externally to cover the remaining costs. Applicant may use locally available incentive programs such as NV Energy's Fleet Managed Charging Program.¹

Scenario 1 illustrative Capital Stack

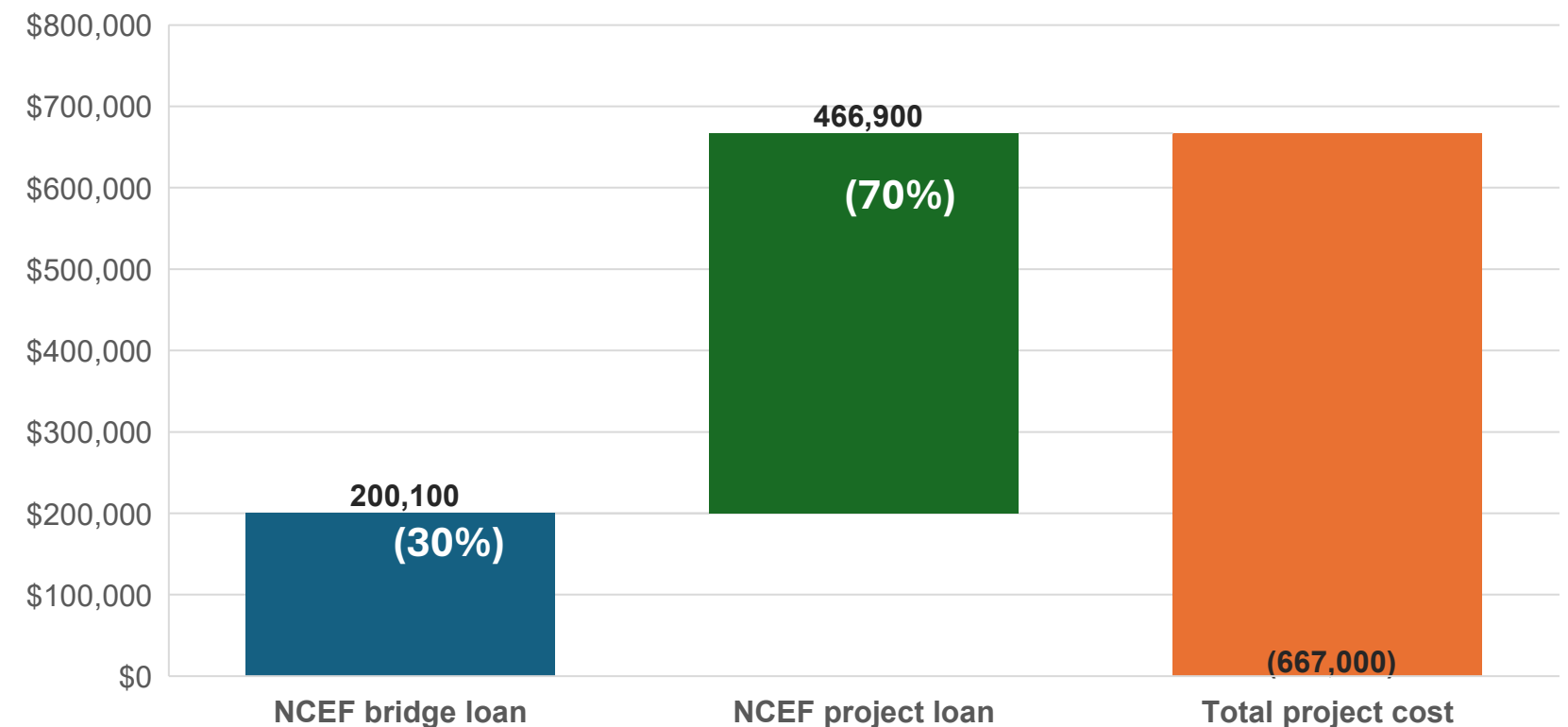


Scenario 2: NCEF's bridge loan + NCEF project loan

For a \$667,000 EV charging infrastructure installation (~4 DCFC chargers):

- NCEF's bridge loan can cover up to \$200,100 i.e., the lesser of \$100,000 per item or 30% of project cost per item.^{2,3,4}
- NCEF's project loan can cover the remaining \$466,900.
- Applicant may need to raise additional capital if costs exceed thresholds.

Scenario 2 illustrative Capital Stack



1. NV Energy incentive of \$200 per DCFC port may be applicable.

2. An "item" is described as each charging port, fuel dispenser, or storage property. For more details on 30C tax credit see: [Alternative Fuel Vehicle Refueling Credit | IRS](#)

3. To be eligible for relevant tax credit (Alternative Fuel Infrastructure Tax Credit i.e., 30C), projects must be eligible i.e., located within New Market Tax Credit Program. See NMTC 2020 map here: [NMTC Public Viewer](#).

4. Tax credits are eligible for direct pay and transferability.

Thank you

Email ishan@nevadacef.org for next steps.



NV Energy Fleet Managed Charging

Raheel Sadiq, MBA

Project Manager, Electrification

AGENDA

- ▶ Fleet MC Program Objectives
- ▶ Fleet Managed Charging Build Program
- ▶ Program Roles & Responsibilities
- ▶ Incentive Structure
- ▶ Performance Incentive Structure
- ▶ Applying on NVEnergy.com

Fleet Managed Charging Program Objectives

- Program Overview:
 - Build awareness of managed charging and encourage program enrollment to support optimal integration of fleet EV charging with grid conditions
 - When you charge matters
 - Reduce costs to business owners and fleet managers transitioning fleets to EVs
 - Optimize charging efficiency
 - Smart charging
 - Avoid the peak
 - Enhance Fleet reliability & uptime

Fleet Managed Charging Build Program



- The fleet Managed charging program will offer:
 - one-time enrollment incentive, form of a check
 - Annual Participation incentive, form of bill credit
 - Requires participation in managing charging element of the program.
 - qualified L2 or DC fast chargers
 - requires separately metered chargers
 - requires Enrollment in NV Energy's EVRR TOU rate.
- For Both BYOC and New Equipment, customer can enroll on the NV Energy website (in progress)
- The active managed charging program will work with commercial owners to:
 - schedule charging, to optimize the grid
 - allow NV Energy to reduce EV charging during on-peak hours
 - protect operational readiness
 - Centralize EV control
- The program will
 - develop optimized charging schedules that best manage energy
 - Ensure that customer fleet vehicles are fully charged by a preset completion time, based on customers preset charging schedules.
 - Customers in the fleet program will always be able to override their standard charging schedule to ensure their EV fleet is ready for operation.

Customer Eligibility	Program Requirements	NV Energy Responsibilities
a. NV Energy customer with electric service in business's name b. Customer fleet EVs must be registered in Nevada within 6 months after approved enrollment.	Customer must install: a. L2 - a minimum of 8 and maximum of 36 charging ports b. DCFC - a minimum of 2 and a maximum of 4 ports Customer must: a. Mandatory enrollment in EVRR TOU rate. b. Separately meter charging infrastructure. c. Participate in program for a minimum of 36 months. d. Participate in 75% of events for plugged-in vehicle. e. Not install onsite generation for EV chargers f. Maintain the equipment over its useful life. g. Use charging infrastructure for its own fleet vehicles. Charger must be: a. Level 2, ISO 15118 certified b. Compatible with Open ADR or other potential standard communication protocols upon approval c. Dual port d. Separately metered	a. Receive, review, and approve customer program enrollments. b. Receive, review, and issue payment for upfront enrollment and for participation in each managed charging event. c. Communication of schedule and changes as needed.

Enrollment & Performance Incentives

- Enrollment Incentive Check
- Customer meets program requirements
- L2 charger (max: 36 ports)
- \$100 incentive/port
- DCFC Charger (max: 4 ports)
- \$200 incentive/port
- Performance Incentive Bill Credit
- Customer meets participation requirements
- Min. of 75% of called events.
- Customer can opt out. (max 25%)
- A port participating in at least 51% of the time for each event qualifies.

Fleet Managed Charging



The fleet charging program will offer a one-time upfront enrollment incentive for installing internet-connected Level 2 chargers, minimum of 8 and maximum of 36 ports, or DC fast chargers, minimum of 2 and maximum of 4 ports, in exchange for a commitment to participate in the demand response managed charging element of the program.

[APPLY NOW](#)[PROGRAM HANDBOOK](#)[TERMS & CONDITIONS](#)[IRS W-9 FORM](#)

Eligibility

- NV Energy customer with electric service in business's name
- Customer fleet EVs must be registered in Nevada within 6 months after approved enrollment.

Program Requirements

- Install L2 EV charger, minimum of 8 and maximum of 36 ports.
- Install DCFC EV charger, minimum of 2 and maximum of 4 ports.
- Enroll in the company EVRR TOU rate.
- Separately meter charging infrastructure.
- Do not install onsite generation for EV chargers.
- Maintain the equipment over its useful life.
- Use charging infrastructure for customers' own fleet.

Charger must be:

- A qualified charger
- ISO 15118 Certified
- Compatible with Open ADR or other potential standard communication protocols upon approval
- Dual port
- Separately metered

Incentive & Performance*

- \$100 for each level 2 charging port. (up to the 36 ports per installation)
- \$200 for each DC fast charger. (up to the 4 ports per installation)
- \$300 per port for participating in minimum of 75% of the events called while a vehicle was plugged in.

* Enrollment incentive is a one-time payout in the form of a check. Performance incentive is an annual payout at the end of the calendar year in the form of bill credits for each year of participation, assuming customer has met program requirements.



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Project Manager, Electrification

Email: raheel.sadiq@nvenergy.com

Phone: 702-525-0927



U.S. VEHICLE EMISSIONS STANDARDS

(A CALIFORNIA CASE STUDY)

TED LENDIS
PLANNING MANAGER

CLARK COUNTY
DEPARTMENT OF ENVIRONMENT &
SUSTAINABILITY

SEPTEMBER 30, 2025



togetherforbetter



division of
air quality

VEHICLE EMISSIONS STANDARDS

A HISTORICAL OVERVIEW

1940s: Los Angeles was infamous for extreme smog

1950s: Widespread health problems & visibility issues in CA

1960: CA first state to regulate vehicle emissions

1965: Congress passed uniform national standards for 1968 model years

1970: CAA amendment gave CA authority to set standards w/ EPA waiver

1970s: CA's preexisting programs were "grandfathered" into federal law



VEHICLE EMISSIONS STANDARDS

A HISTORICAL OVERVIEW

- CA's smog crisis led to environmental concerns nationwide.
- Political consensus that stronger federal coordination was needed.
- President Nixon created the Environmental Protection Agency (EPA) on December 2, 1970.
- CA's air quality programs provided a model for EPA's approach.



VEHICLE EMISSIONS STANDARDS

CURRENT REGULATORY FRAMEWORK

- **The Environmental Protection Agency (EPA)**

- Sets national vehicle emission standards comprised of tailpipe limits.
- Limits criteria pollutants, greenhouse gases, and air toxics
- Addresses public health, environment, and climate impacts.

- **The National Highway Traffic Safety Administration (NHTSA)**

- Sets Corporate Average Fuel Economy (CAFE) standards comprised of vehicle miles-per-gallon (MPG) targets.
- Limits greenhouse gases, which is directly proportional to fuel economy.
- Addresses climate impacts.

VEHICLE EMISSIONS STANDARDS

EMISSION TYPES

■ Criteria Pollutants (NAAQS)

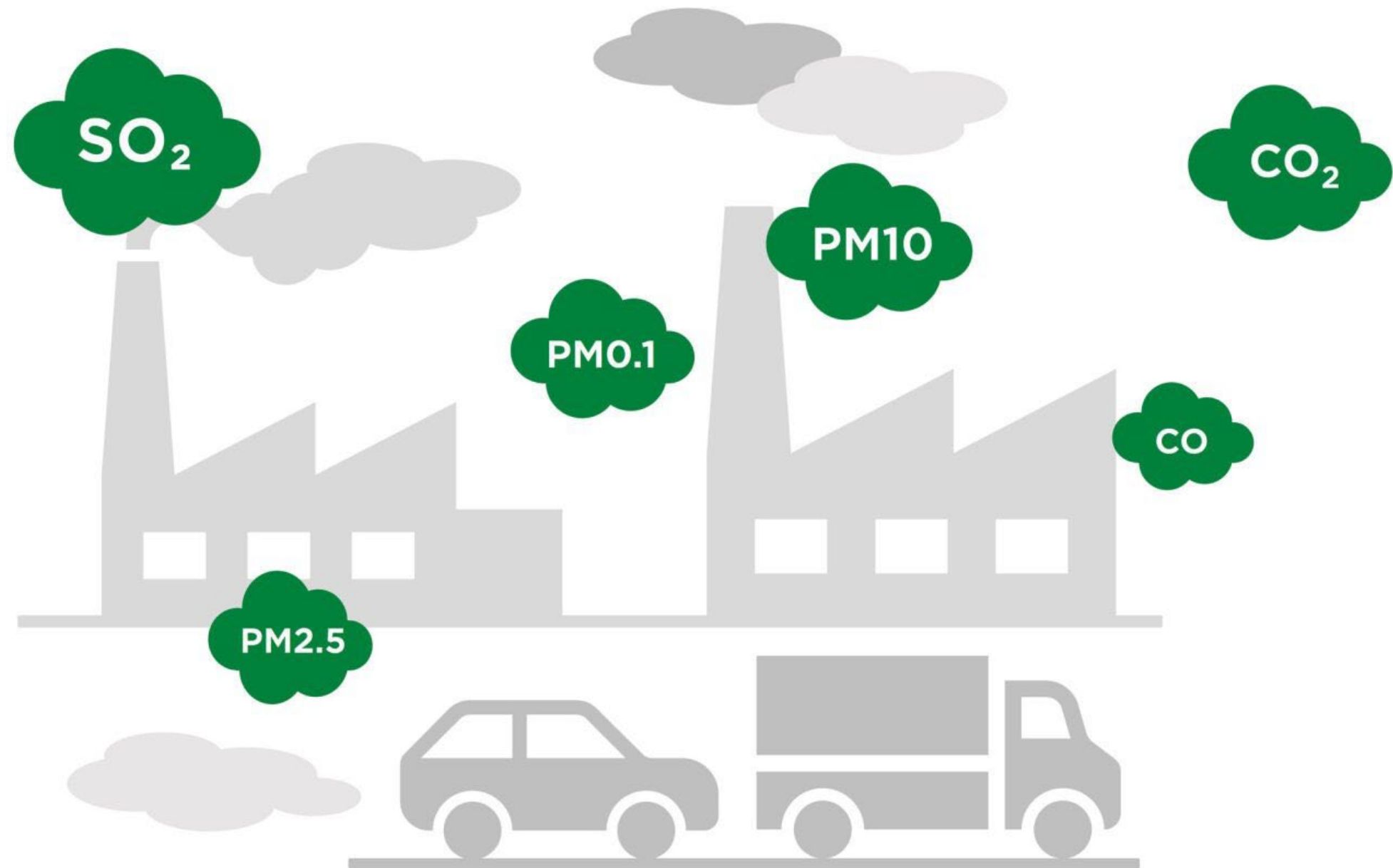
- Oxides of Nitrogen (NO_x)
- Particulate Matter (PM)
- Carbon Monoxide (CO)
- Ozone Precursors (NO_x & VOC)

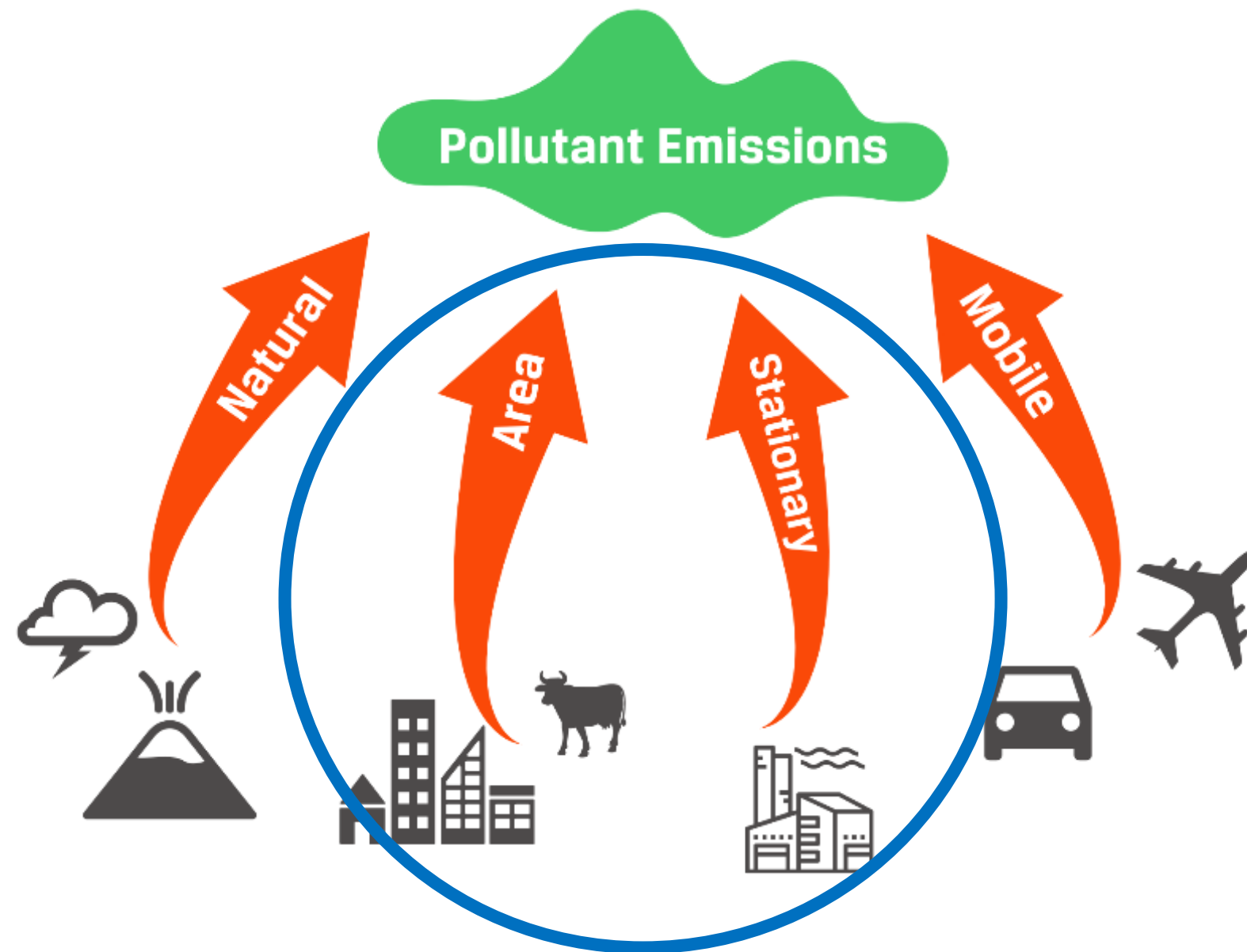
■ Greenhouse Gases

- Carbon Dioxide (CO_2)
- Methane (CH_4)
- Hydrofluorocarbons (HFCs)

■ Air Toxics (188 total)

- Benzene
- Formaldehyde

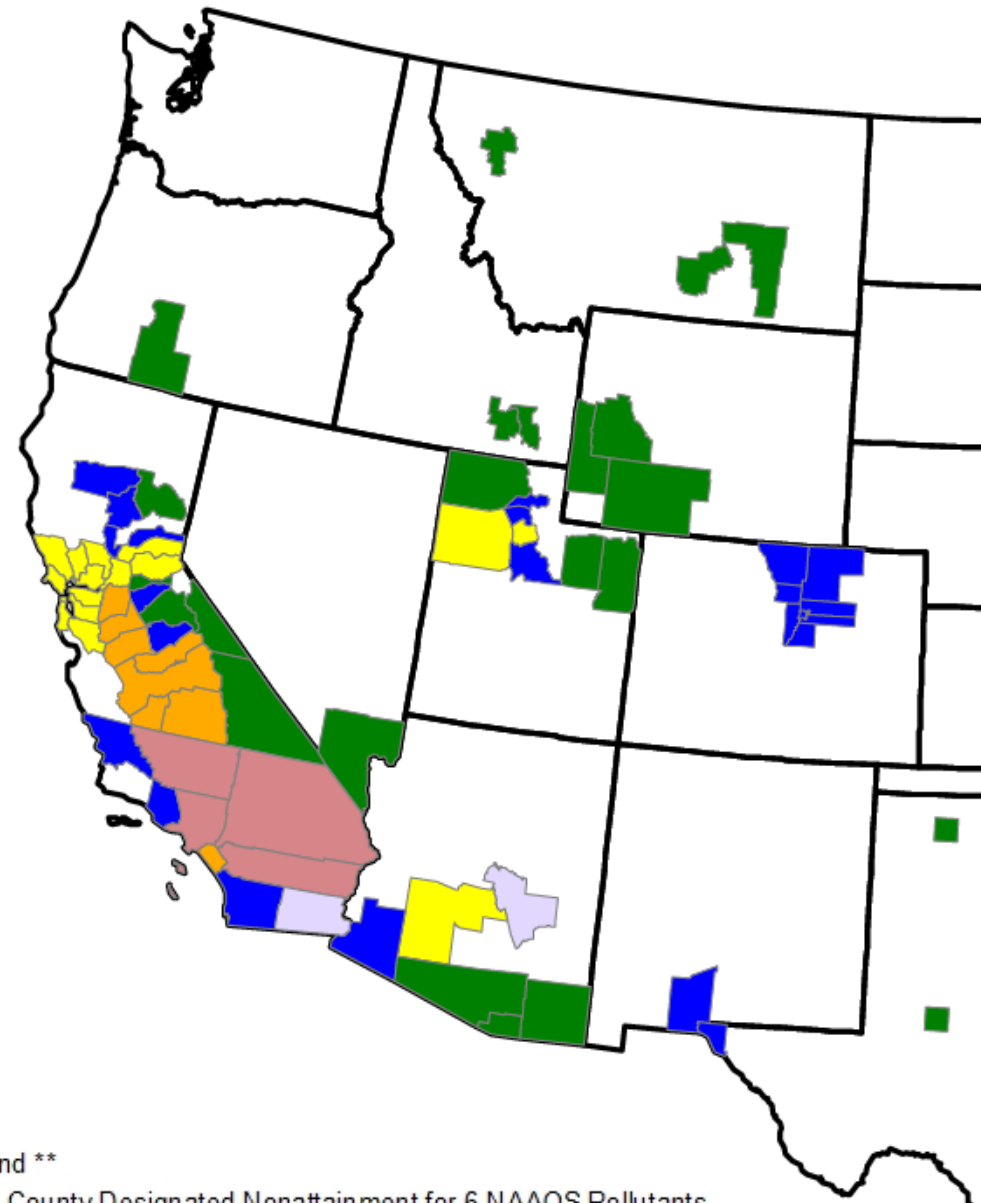




VEHICLE EMISSIONS STANDARDS STATE AND LOCAL AUTHORITIES

- **Typically regulated source categories include:**
 - Area Sources (e.g., gas stations, dry cleaners, autobody repair shops)
 - Stationary Sources (e.g., factories, power plants, oil refineries)
- **Other regulated source categories include:**
 - Traffic control measures
 - Fuel types and blends
 - Vehicle emissions testing/maintenance

VEHICLE EMISSIONS STANDARDS STATE IMPLEMENTATION PLANS (SIPs)



Legend **

- County Designated Nonattainment for 6 NAAQS Pollutants
- County Designated Nonattainment for 5 NAAQS Pollutants
- County Designated Nonattainment for 4 NAAQS Pollutants
- County Designated Nonattainment for 3 NAAQS Pollutants
- County Designated Nonattainment for 2 NAAQS Pollutants
- County Designated Nonattainment for 1 NAAQS Pollutant

Implement, maintain, and enforce the NAAQS

Uses emissions controls to comply with the NAAQS

Federal vehicle emissions standards help attain the NAAQS



VEHICLE EMISSIONS STANDARDS

FEDERAL UPDATES AFFECTING CALIFORNIA

- EPA Grants Clean Car and Heavy-Duty Waivers (Dec 2024) for:
 - Advanced Clean Cars II (ACCCII), allowing CA to require 100% ZEV sales by 2035.
 - Advanced Clean Trucks (ACT) and related heavy-duty programs, allowing CA to require manufacturers increase percentage of ZEV sales.
 - Heavy-Duty Omnibus Low NO_x (HDO) waiver, allowing CA to require 90% NO_x reduction from heavy-duty engines.
- California Air Resources Board (CARB) Withdrew Pending Waiver Requests (Jan 2025)
 - Anticipating pushback under the Trump administration, CARB withdrew waiver requests for:
 - Advanced Clean Fleets – medium/heavy-duty ZEV mandates
 - In-use locomotive standards
 - Harbor craft and refrigeration units

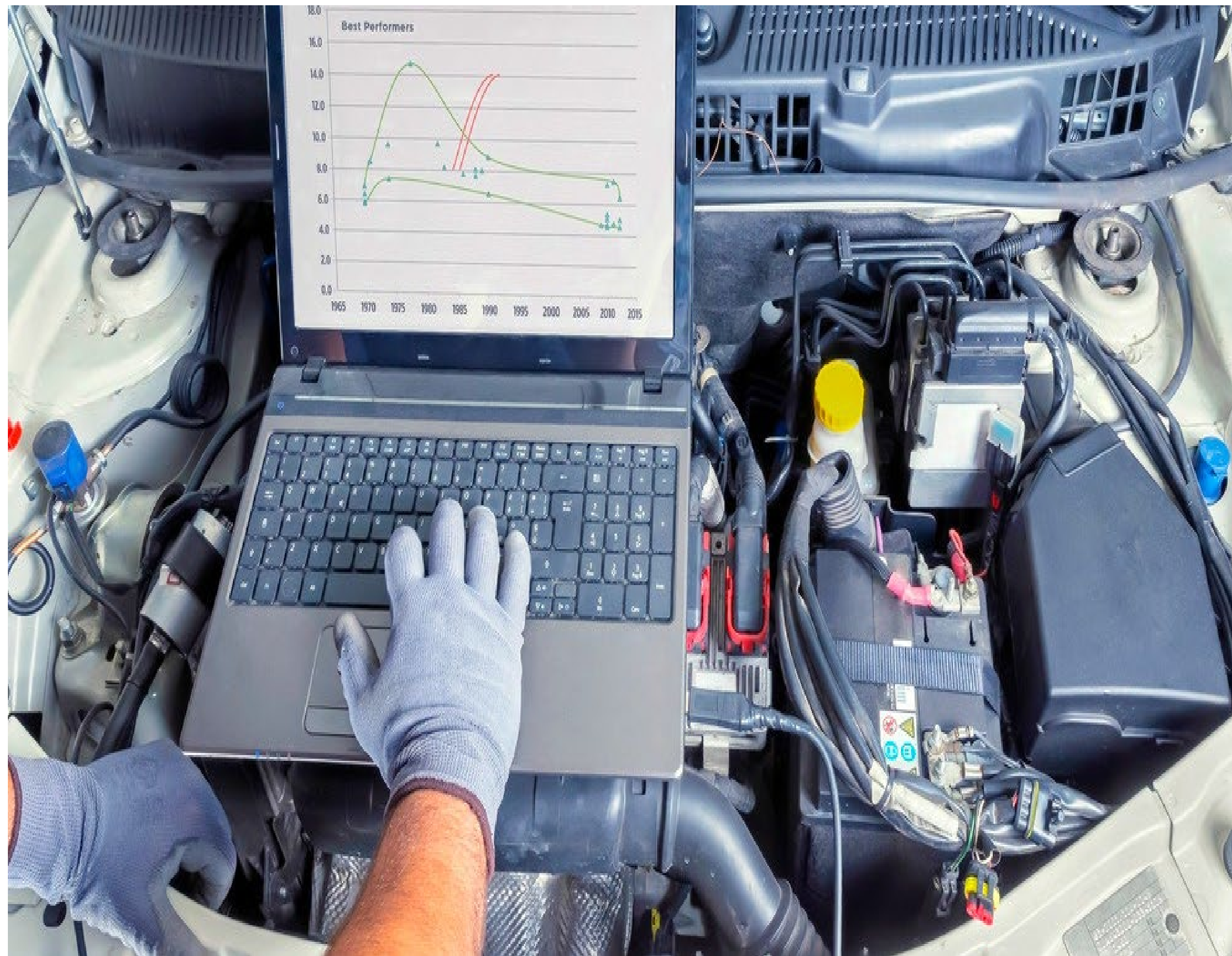
VEHICLE EMISSIONS STANDARDS

FEDERAL UPDATES AFFECTING CALIFORNIA

- Senate Republicans established a procedural precedent (May 2025)
 - Allows a simple-majority vote to disapprove California's waivers.
 - Blocks California from using EPA waiver authority to establish emissions standards unless challenged successfully.
- Republicans used the Congressional Review Act to nullify EPA's waivers for:
 - ACCII (passenger vehicles ZEV mandates)
 - ACT (heavy-duty trucks ZEV mandates)
 - HDO (NOx standards for new heavy-duty trucks)



QUESTIONS?



FROM STANDARDS TO SYSTEMS

JUSTIN L. MAHANA
ADMINISTRATOR/CORPORATE FLEET
MANAGER

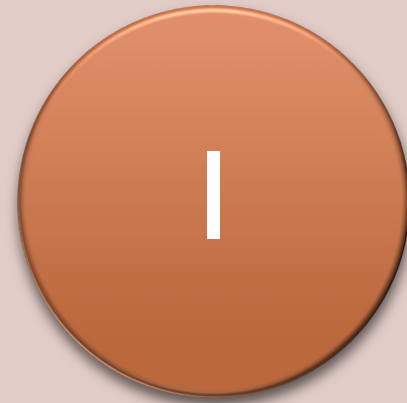
SOUTHWEST GAS

SEPTEMBER 30, 2025



SOUTHWEST GAS





Regulations drive vehicle design
and technology



Compliance depends on proper
operation and upkeep



Technicians and fleets are the
frontline of ensuring emissions
systems work as intended

FROM STANDARDS TO SYSTEMS



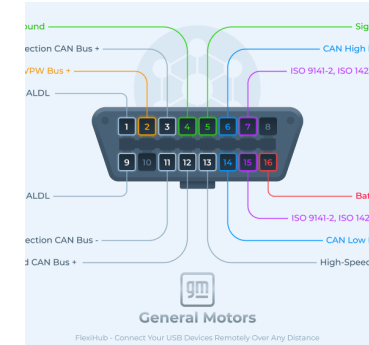
Catalytic Converters (reduce CO, HC, NOx)



Oxygen Sensors (optimize combustion, monitor emissions)

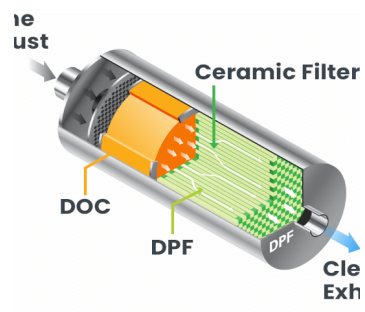


Evaporative Emission Controls (capture fuel vapors)



OBD-II Diagnostics (monitor and report faults)

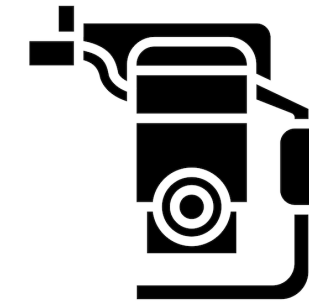
KEY GASOLINE COMPONENTS



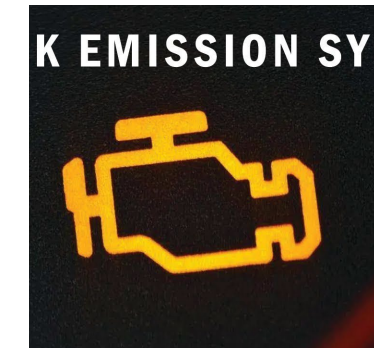
Diesel Particulate Filter (captures soot/PM)



Selective Catalytic Reduction (reduces NO_x with DEF)



Exhaust Gas Recirculation (lowers combustion temps/ NO_x)



Turbochargers and sensors (support efficiency and emissions)

KEY DIESEL COMPONENTS

KEEPING EMISSION SYSTEMS EFFECTIVE

- Regular inspection and sensor replacement
- Preventive maintenance of catalysts and filters
- DEF quality and system calibration (for SCR)
- Cleaning and regenerating DPFs
- Addressing emission-related diagnostic codes promptly



- Complexity of modern systems: electronics + chemistry + mechanics
- Certifications: ASE A8 (Engine Performance), LI (Advanced Diagnostics), OEM training
- Skills: advanced scan tools, DEF handling, DPF regeneration, EGR troubleshooting, hybrid/EV readiness
- Ongoing learning: standards and technology evolve rapidly



TECHNICIAN TRAINING FOR EMISSION SYSTEMS

BRIDGING TO ZERO EMISSIONS

- ICE vehicles will remain in fleets for decades
- Maintenance remains critical for compliance and clean air
- Technician workforce must adapt: ICE + EV expertise
- Policy and practice together ensure success





QUESTIONS?

THANK YOU!



HENDERSONTM

City of Henderson Fleet Maintenance

Southern Nevada Clean Cities Coalition
Fleet Managers Roundtable
September 2025

Objective

Discuss best practices and innovation in the City of Henderson's fleet operations and maintenance

Presenter:

Martin Lane

Fleet Operations and Maintenance Manager
City of Hender





Modernization of Fleet

Reducing the Age of the Fleet

A newer fleet is automatically a greener fleet

Reducing Maintenance and Repair

Reduce the maintenance and repairs on assets

Reducing airborne emissions from diesel exhaust

Replacing vehicles and equipment after 2012

Engine Miles vs. Engine Hours Analysis

Low miles does not always mean low usage



Fleet Considerations

Replacing vehicles at end of life

- Replacing grant funded vehicles
- Infrastructure vs. Equipment
- Utility of vehicle
- Emission reduction technology
- Price disparity between capital and fuel costs



Sustainability in the Shop

- More Sustainable Materials
 - Refrigerant
 - Welding Gas (Renewable Hydrogen H2)
 - Less aerosol cans – brake fluid
 - Fire retardant foam (Non-PFAS Forever Chemicals)
- Recycling & Reusing Old Materials
 - On-site Metal and Cardboard Recycling
 - Excess Equipment to Auction (tool boxes, lightbars, etc)
 - Recycling batteries through distributor
 - Proper disposal of used oil, thermofluids
- Going Digital / Paperless



Refurbish Over Replace

Giving existing vehicles and equipment a second life

Examples:

- Remounting ambulance boxes on new chassis
- Refurbishing fire engines

Results in cost savings and reducing waste



Soy Tire Pilot

Replace typical petroleum-based oil rubber tires with soybean oil-based tires

- Partially derived from natural, sustainable materials
- Renewable source that improves manufacturing efficiency & reduces energy consumption

Pilot Program

- Late 2025/Early 2026
- 3 HPD fleet vehicles

Questions

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