



BUSINESS FUNDING OPPORTUNITIES

FOR ALTERNATIVE FUEL
VEHICLES

HOSTED BY CLARK COUNTY'S
CLEAN CITIES COALITION

November 16, 2022

AGENDA

- Clark County Clean Cities Coalition
 - Nicole Wargo, Fellow
- Nevada Clean Energy Fund
 - Kirsten Stasio, Executive Director
- NV Energy
 - Adam Grant, Director of Electrification and Energy Services





CLARK COUNTY'S CLEAN CITIES COALITION

OVERVIEW AND RECAP

NICOLE WARGO, FELLOW



- National network through the US Department of Energy
- Goal:
 - Reduce petroleum fuels
 - Approved alternative fuels
 - Idling reduction
- Purpose:
 - Reduce dependence on foreign oil
 - Provide cleaner air
 - Lower greenhouse gas emissions
- 75 Coalitions in the United States
 - ...but no representation in Nevada!
- Clark County is currently working towards a designation



WHY CLEAN CITIES?

Funding opportunities

National recognition

Collaborative space for community

Capacity building

Cleaner air and fewer greenhouse gas emissions





WHO IS A STAKEHOLDER?

- Anyone interested in reducing their petroleum fuel use!
- We want to work with:
 - Fleet managers
 - Car dealerships
 - Nonprofits
 - Municipalities
 - Fuel providers
 - Public Organizations
 - Trade unions and mechanics



HOW TO PARTICIPATE?

Quarterly Stakeholder Meetings

Online Programming

In-Person Events

Opportunities to sponsor, present & host



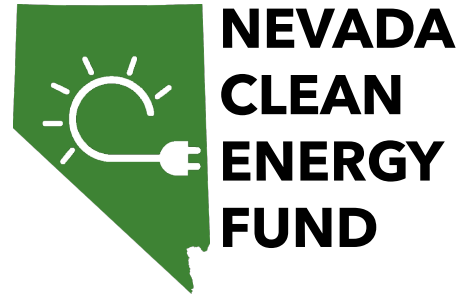


WANT TO LEARN MORE?

Visit our website by scanning this QR Code

Email Nicole.Wargo@ClarkCountyNV.gov





Funding Opportunities for Alternative Fuel Vehicles

Kirsten Stasio, Executive Director
November 16, 2022

Webinar Hosted by Clark County Clean Cities

Nevada Clean Energy Fund

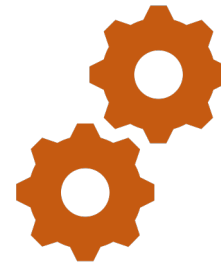
The Nevada Clean Energy Fund (NCEF) is a non-profit organization that supports a thriving, affordable, and accessible clean energy economy by providing financial and technical resources to Nevadans. We seek to:



**Improve the quality of
life of Nevadans**



Reduce energy costs



**Create high-quality
jobs**



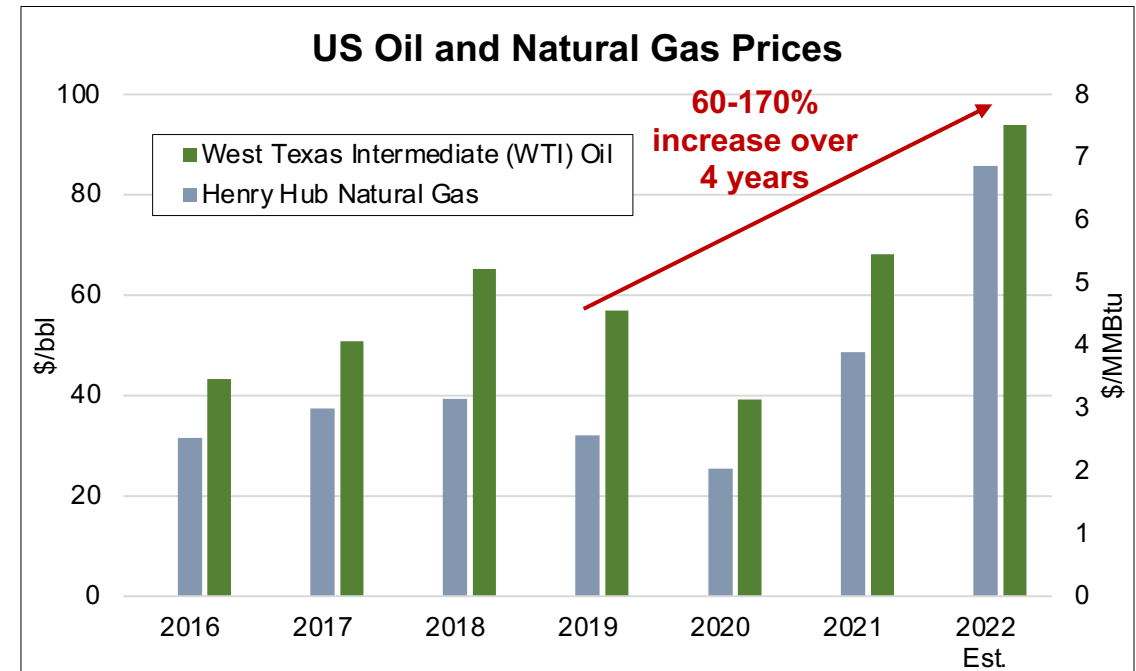
**Address climate
change**

Energy Costs are Significant and Increasing

- For many businesses, energy is one of the largest operating expenses, and the most unpredictable.
- Nearly one-third of Nevada households spend over 20% of their income on energy.

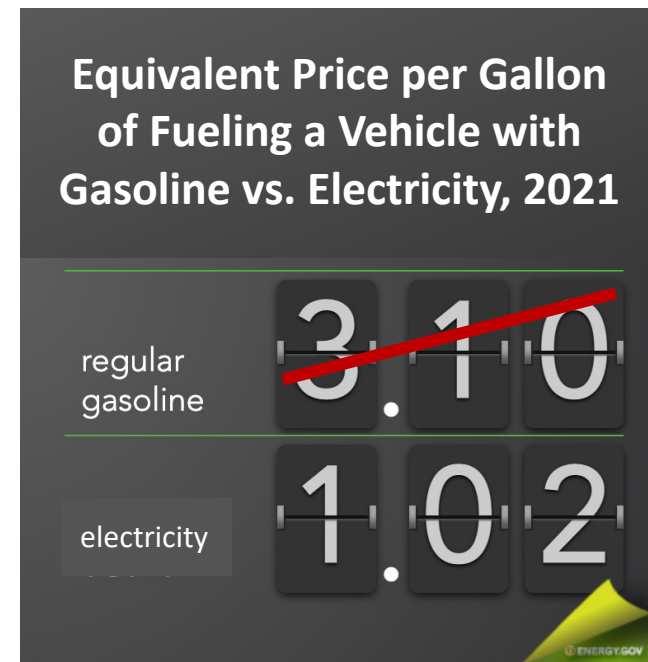
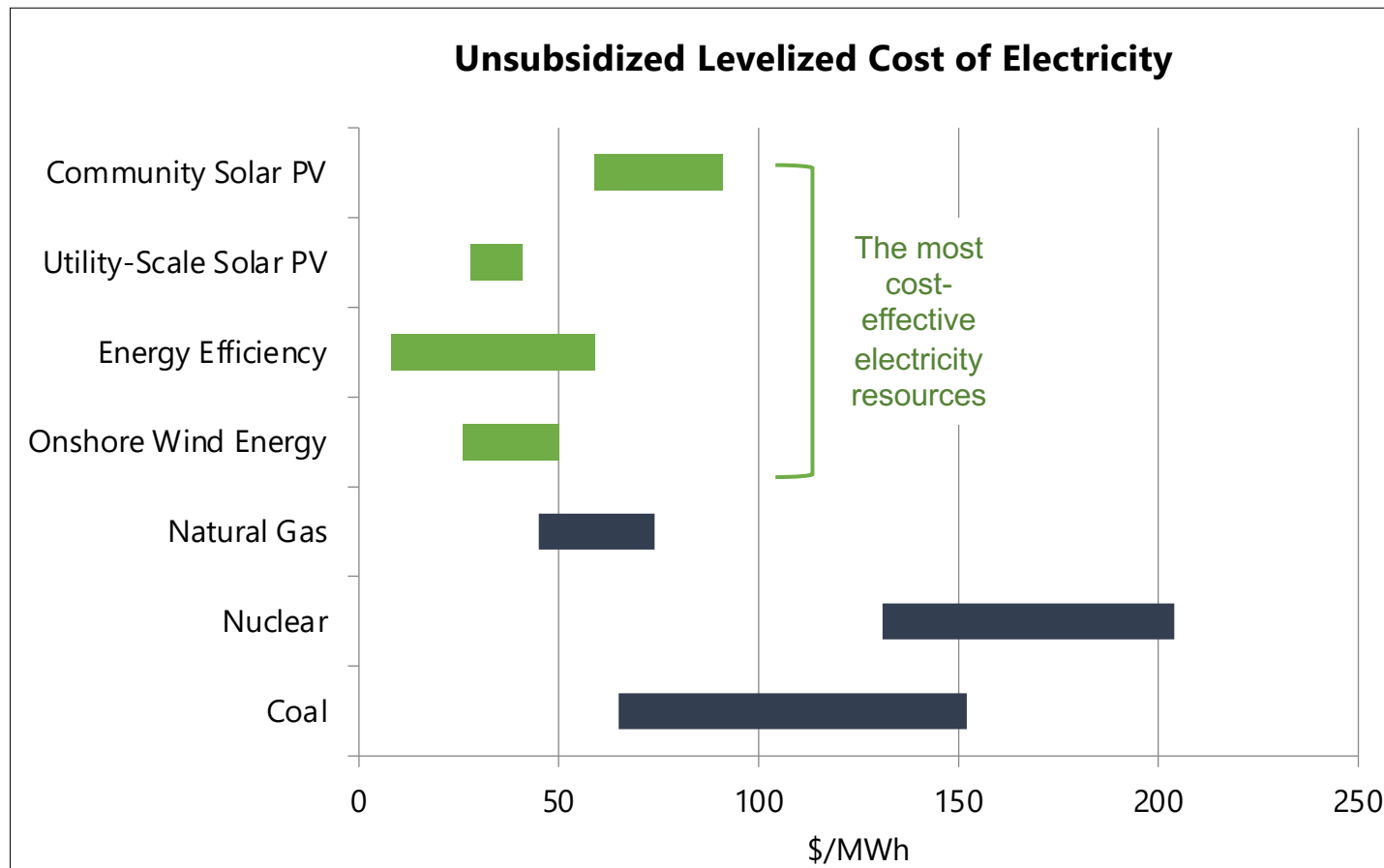
Annual Energy Expenditure by Commercial Customers in Nevada

| | Average Annual Bill (2021) | \$/square foot range (2018) |
|---|----------------------------|-----------------------------|
| Electricity | \$5,560 | \$0.46 - \$3.79 |
| Natural Gas | \$4,355 | \$0.07 - \$0.67 |
| Gasoline for one passenger vehicle at 13,000 miles/year | \$2,660 | n/a |



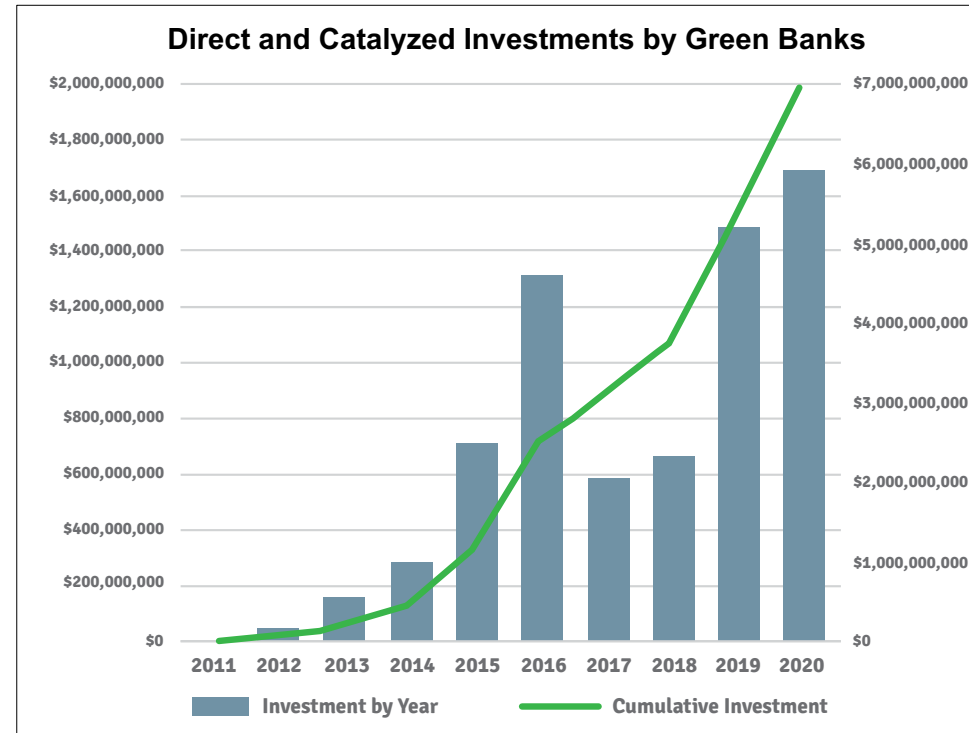
Clean Energy Resources Enable Significant Cost Savings

- Payback periods and ROIs on clean energy investments can be very attractive, but require an initial capital investment to realize.
- Subsidies and health/climate benefits make these investments even more attractive.

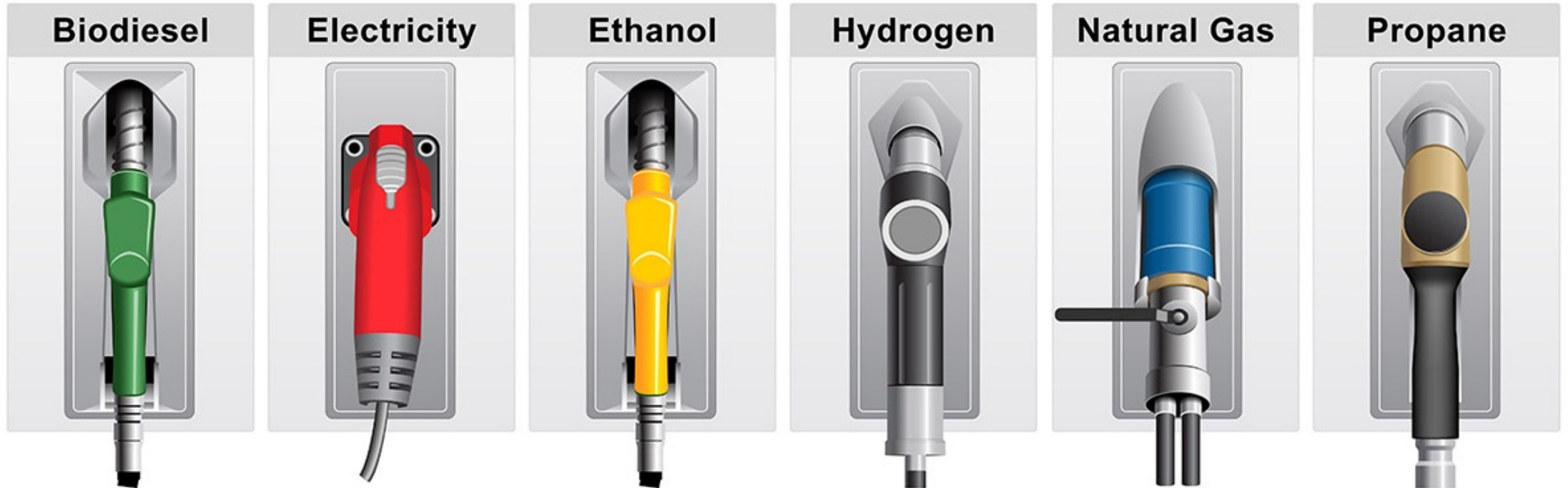


The Green Bank Solution

- NCEF was established by state legislation in 2017 as Nevada's green bank, an institutional model that has been successfully implemented in several other US states.
- Green banks have deployed over \$2.5 billion in clean energy investments, and are slated to grow their impact with the \$27 billion Greenhouse Gas Reduction Fund in the Inflation Reduction Act.



What are alternative fuel vehicles?



Source: US Department of Energy Alternative Fuels Data Center

Why go electric? Economic benefits

UP
TO **80%**

fuel cost savings

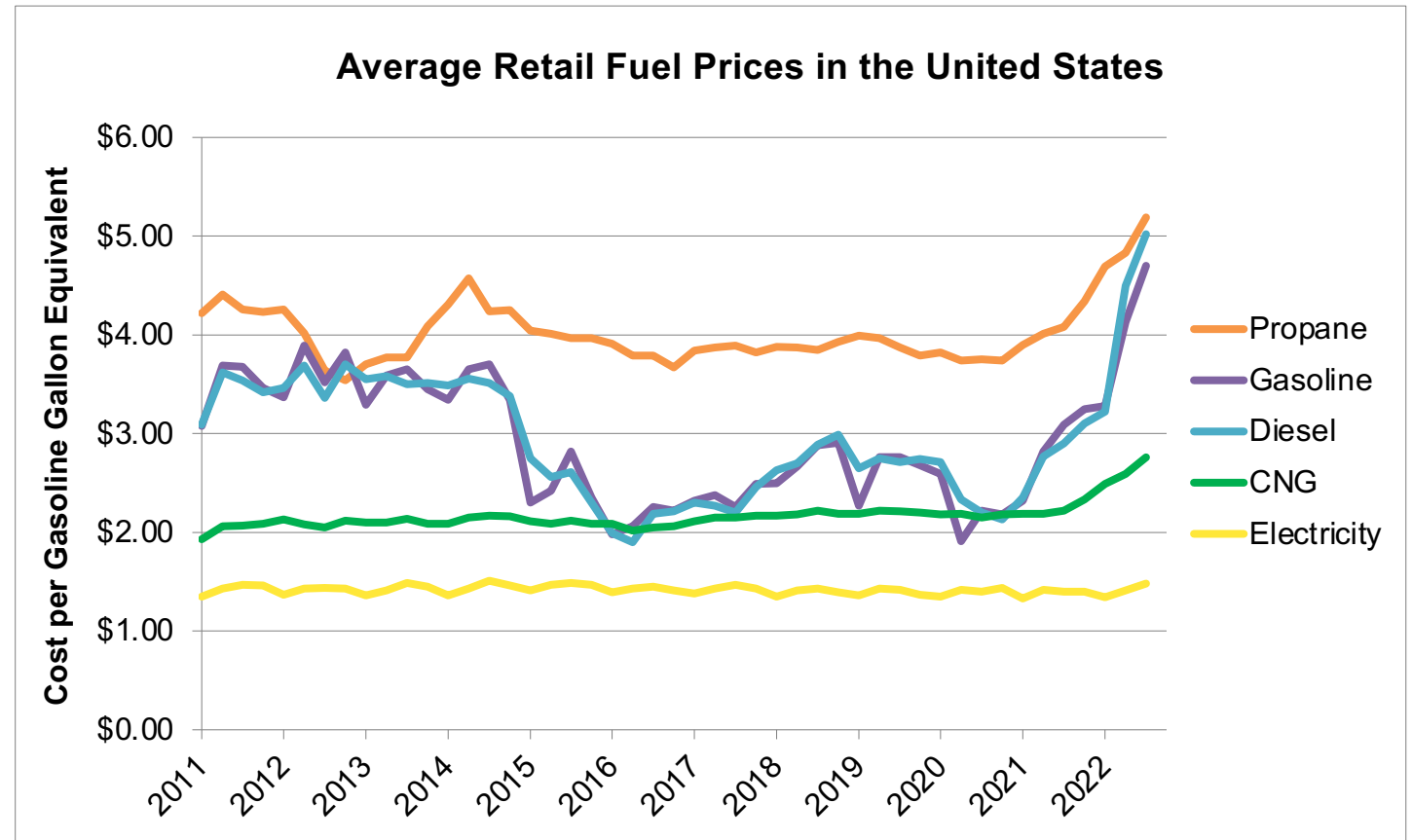
UP
TO **50%**

maintenance cost savings

\$7.5k-\$140k+

federal tax credits*

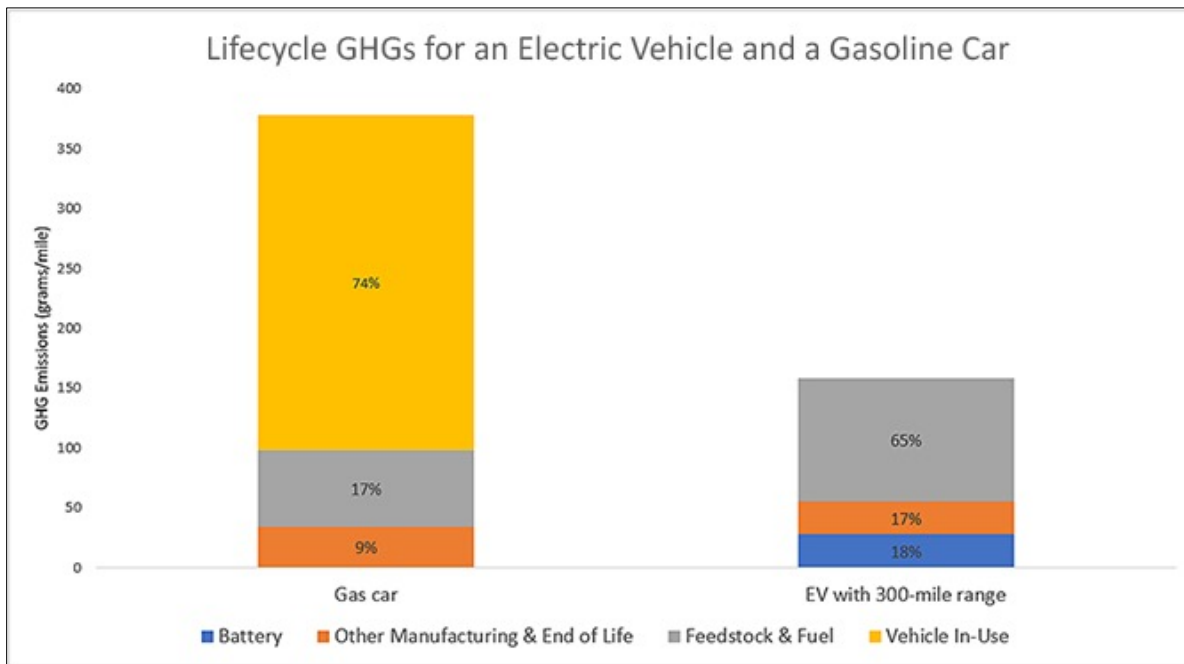
** Includes EV charging infrastructure; does not account for utility incentives or other potential federal incentives*



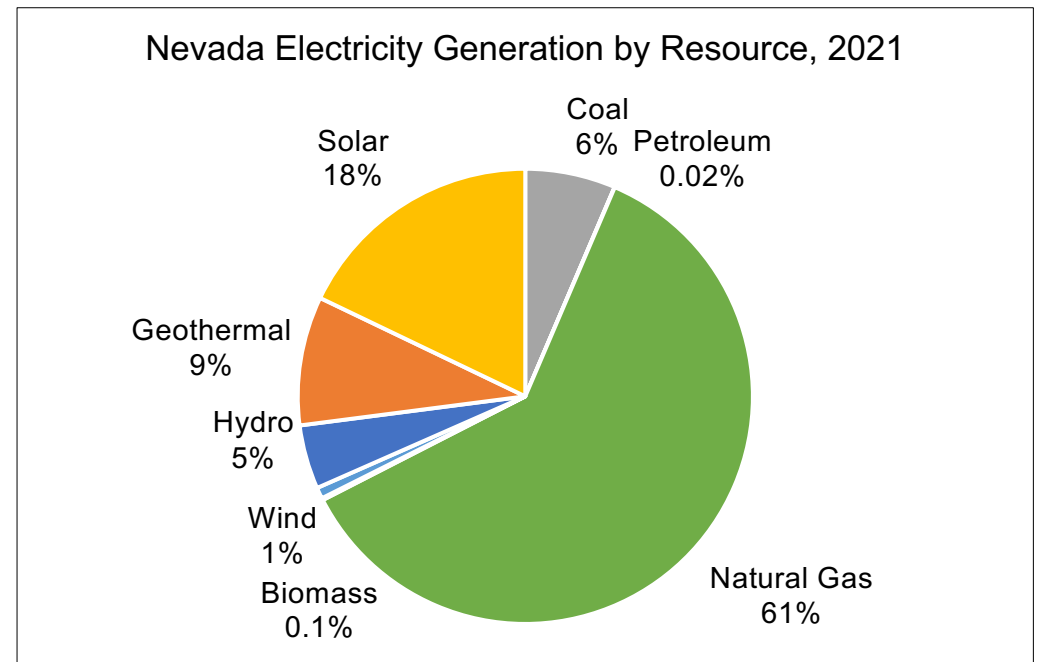
Source: US Department of Energy Alternative Fuels Data Center

Why go electric? Health, environmental, & climate benefits

- The transportation sector is the largest source of GHG and NO_x emissions in the US, and also contributes to VOC, PM, and SO₂ emissions. Exposure to NO_x, VOCs, PM, and SO₂ can cause severe asthma and other negative health impacts.
- EVs have no tailpipe emissions and emit less than half the GHGs of a gas car over its lifetime.
- Renewables make up ~33% of Nevada's electricity mix, and Nevada has a state-mandated goal of sourcing all of its electricity from zero-carbon sources by 2050.



Source: Argonne National Laboratory. GREET 2 (2021). Assumptions: 300-mile range EV;; 30.7 MPG gas car; vehicle lifetime of 173,151 miles; U.S. average grid emissions.



Source: Energy Information Administration (EIA). 2022

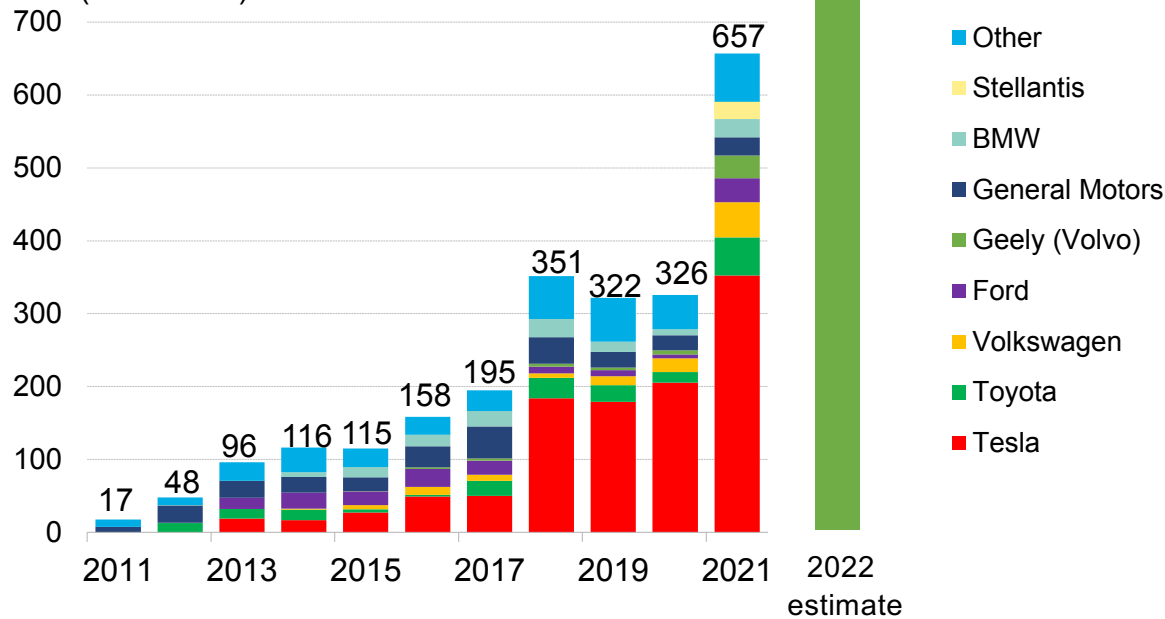
More and more people are buying EVs

- EV sales currently make up 5% - 6% of US passenger vehicle sales and are growing rapidly
- Every major vehicle manufacturer has one or more EV offerings

Electric vehicle sales

Units (thousands)

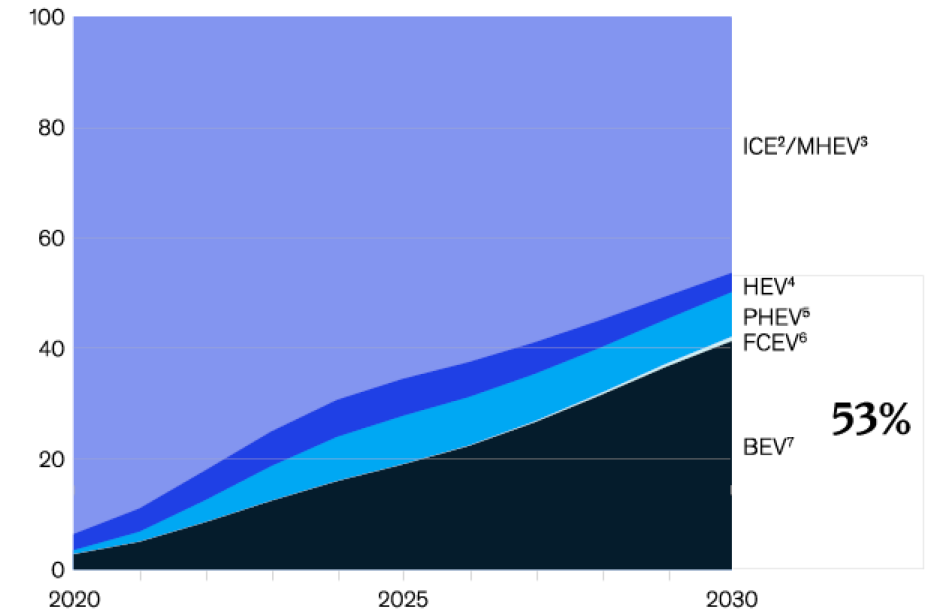
700 - 800



Source: Bloomberg New Energy Finance. Sustainable Energy in America Factbook (2022)



















If electric-vehicle adoption continues to accelerate, EVs are likely to account for more than half of all US passenger car sales by 2030.

US new light-vehicle sales,¹
% of total sales



Source: McKinsey & Co (2022); BEV: battery electric vehicle; FCEV: fuel cell electric vehicle; PHEV: plug-in hybrid electric vehicle; HEV: hybrid electric vehicle; ICE: internal combustion engine; MHEV: mild hybrid electric vehicles

Examples of EV options on the market or coming soon

| Sedans & SUVs | Light-Duty Trucks | Passenger Vans | Cargo Vans | Semi-trucks |
|---|--|---|---|--|
| 18+ models | 10+ models | 15+ models | 5+ models | 7+ models |
|    Volkswagen  CHEVROLET |    CHEVROLET  |    Volkswagen  |    - C A N O O - | V O L V O   DAIMLER  |

Logos shown are for illustrative purposes only and do not indicate an endorsement by NCEF.

Sedan Unsubsidized Economics – An Example

EV vs. Gasoline Sedan Costs

| Vehicle | Base MSRP | Annual Gasoline or Electricity Cost | Annual Maintenance Cost |
|----------------------------------|-----------|-------------------------------------|-------------------------|
| 2023 Toyota Camry LE/SE Gasoline | \$25,945 | \$1,401 | \$3,658 |
| 2023 Chevrolet Bolt EV | \$25,600 | \$393 | \$2,498 |
| Delta (Gasoline minus EV costs) | \$345 | \$1,008 | \$1,160 |

ANNUAL ESTIMATED SAVINGS FOR THE EV: \$2,168

Source: US DOE Alternative Fuels Data Center – Vehicle Cost Calculator. Assumes Nevada average retail electricity price and \$3.90/gal gasoline; 11,926 miles/year, 45% highway. Cost and economic information are based on hypothetical assumptions and are presented for illustrative purposes only. Actual economics will vary. Does not include EV charging costs.

Light-Duty Truck Unsubsidized Economics – An Example

EV vs. Gasoline Light-Duty Vehicle Costs

| Vehicle | Base MSRP | Annual Gasoline or Electricity Cost | Annual Maintenance Cost |
|--|------------------|-------------------------------------|-------------------------|
| 2022 Ford F150 4WD Gasoline | \$35,885 | \$2,165 | \$4,422 |
| 2022 Ford F150 Lightning 4WD EV | \$39,974 | \$693 | \$2,798 |
| Delta (Gasoline minus EV costs) | (\$4,089) | \$1,472 | \$1,624 |

ANNUAL ESTIMATED SAVINGS FOR THE EV: \$3,096

Source: US DOE Alternative Fuels Data Center – Vehicle Cost Calculator. Assumes Nevada average retail electricity price and \$3.90/gal gasoline; 11,926 miles/year, 45% highway. Cost and economic information are based on hypothetical assumptions and are presented for illustrative purposes only. Actual economics will vary. Does not include EV charging costs.

Cargo Van Unsubsidized Economics – An Example

EV vs. Gasoline Cargo Van Costs

| Vehicle | Base MSRP | Annual Gasoline or Electricity Cost | Annual Maintenance Cost |
|--------------------------------------|------------------|-------------------------------------|-------------------------|
| 2023 Ford Transit Cargo Van Gasoline | \$43,455 | \$1,818 | \$4,067 |
| 2023 Ford E-Transit Cargo Van EV | \$50,185 | \$662 | \$2,767 |
| Delta (Gasoline minus EV) | (\$6,730) | \$1,156 | \$1,300 |

ANNUAL ESTIMATED SAVINGS FOR THE EV: \$2,456

Source: US DOE Alternative Fuels Data Center – Vehicle Cost Calculator. Assumes Nevada average retail electricity price and \$3.90/gal gasoline; 11,926 miles/year, 45% highway. Cost and economic information are based on hypothetical assumptions and are presented for illustrative purposes only. Actual economics will vary. Does not include EV charging costs.

Federal Commercial Clean Vehicle Tax Credits – Summary

- Commercial Clean Vehicle Tax Credit:
 - Up to \$7,500 for vehicles <14,000 lbs
 - Up to \$40,000 for vehicles >14,000 lbs.
- EV charging stations and other alternative fuel vehicle refueling stations in eligible census tracts can access a tax credit of up to 30% of the cost of the station, not to exceed \$100,000.
- Both tax credits are directly accessible to tax-exempt entities.

The following is intended to provide a summary of selected provisions in the Inflation Reduction Act, and should not be interpreted as tax or legal advice. Federal and state agencies will be issuing final guidance and regulations related to these provisions.

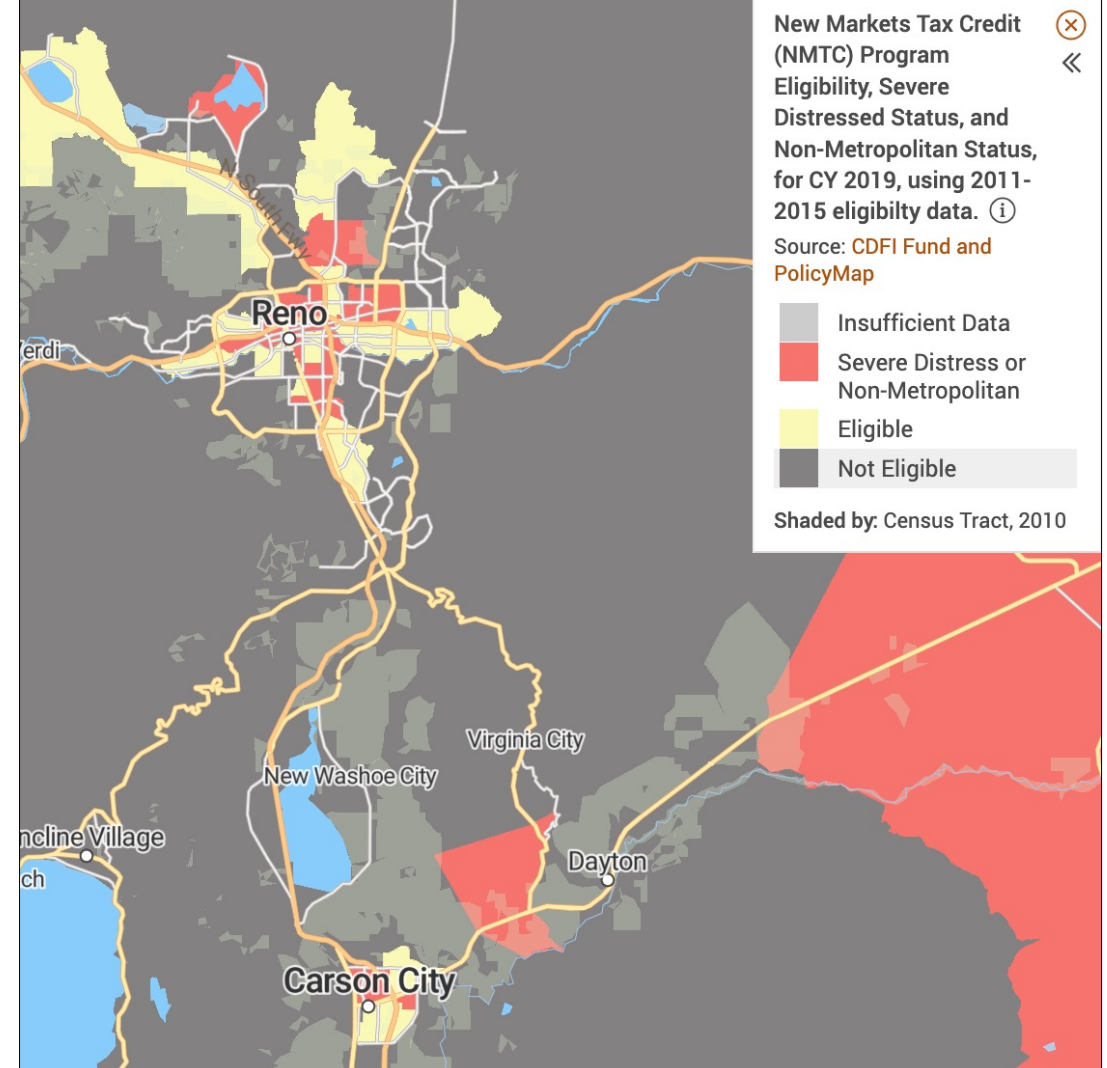
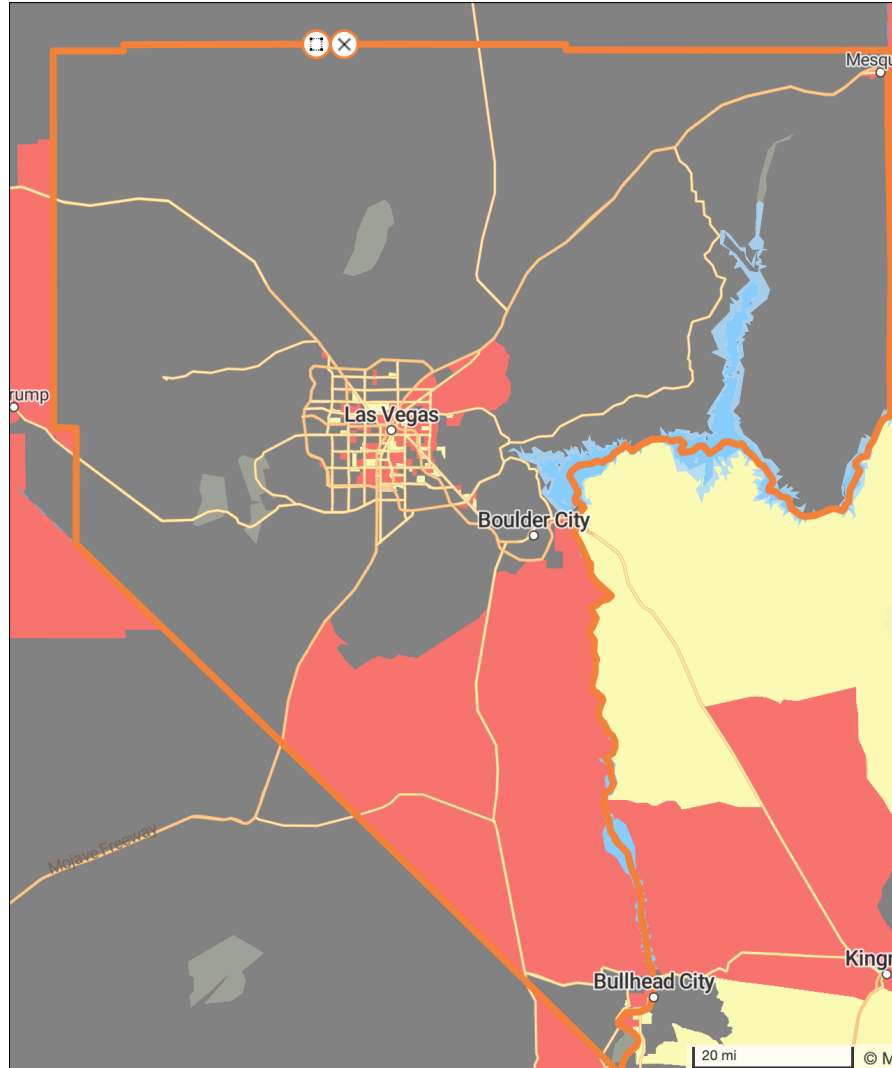
Federal Commercial Clean Vehicle Tax Credit

- aka IRC Section 45W
- Available: January 1, 2023 through December 31, 2032
- **Eligible vehicles:**
 - Type: clean vehicles and mobile machinery
 - Drive train: fully electric (EV), plug-in hybrid electric vehicles (PHEVs), and fuel cell electric vehicles (FCEV)
 - Battery size minimums: ≥ 7 kWh for GVWR $< 14,000$ lbs and ≥ 15 kWh for GVWR $> 14,000$ lbs
 - Domestic content requirements: None
 - Other requirements: vehicle must be subject to a depreciation allowance (i.e., for business use), except in the case of vehicles used by tax-exempt entities
- **Eligible recipients:** businesses & tax-exempt entities (the latter can receive "direct pay" of the credit from the IRS)
- **Tax credit amount** is the lesser of:
 - 15% of purchase price for PHEV
 - 30% of the purchase price for EVs and FCEVs
 - The incremental cost of the vehicle compared to an equivalent internal combustion vehicle
 - Not to exceed \$7,500 for vehicles $< 14,000$ lbs and \$40,000 for vehicles $> 14,000$ lbs

Federal Alternative Fuel Infrastructure Tax Credit

- aka IRC Section 30C
- Available: January 1, 2023 through December 31, 2032
- **Eligible fueling equipment:** natural gas, propane, hydrogen, electricity, E85, or diesel fuel lends containing a minimum of 20% biodiesel
- **Eligible census tracts:**
 - low-income as defined under §45D(e) (poverty rate >20% or, in non-metro census tracts, median family income is less than 80% of state median family income)
 - 45D(e) mapping tool: <https://www.policymap.com/newmaps#/widget/117/4D2AFE10710D41918F180775F0A353F2>
 - Not urban as defined by the most recent decennial census
 - 2010 Census: <https://www.census.gov/programs-surveys/geography/technical-documentation/records-layout/2010-urban-lists-record-layout.html>
- **Eligible recipients:** businesses, tax-exempt entities, and individuals
- **Tax credit amount for commercial infrastructure:**
 - If prevailing wage & apprenticeship requirements are not met: lesser of 6% of infrastructure costs or \$100,000
 - If prevailing wage & apprenticeship requirements are met: lesser of 30% of infrastructure costs or \$100,000
- **Tax credit amount for residential infrastructure:** lesser of 30% of costs or \$1,000

Federal Alternative Fuel Infrastructure Tax Credit – 45D(e) eligibility

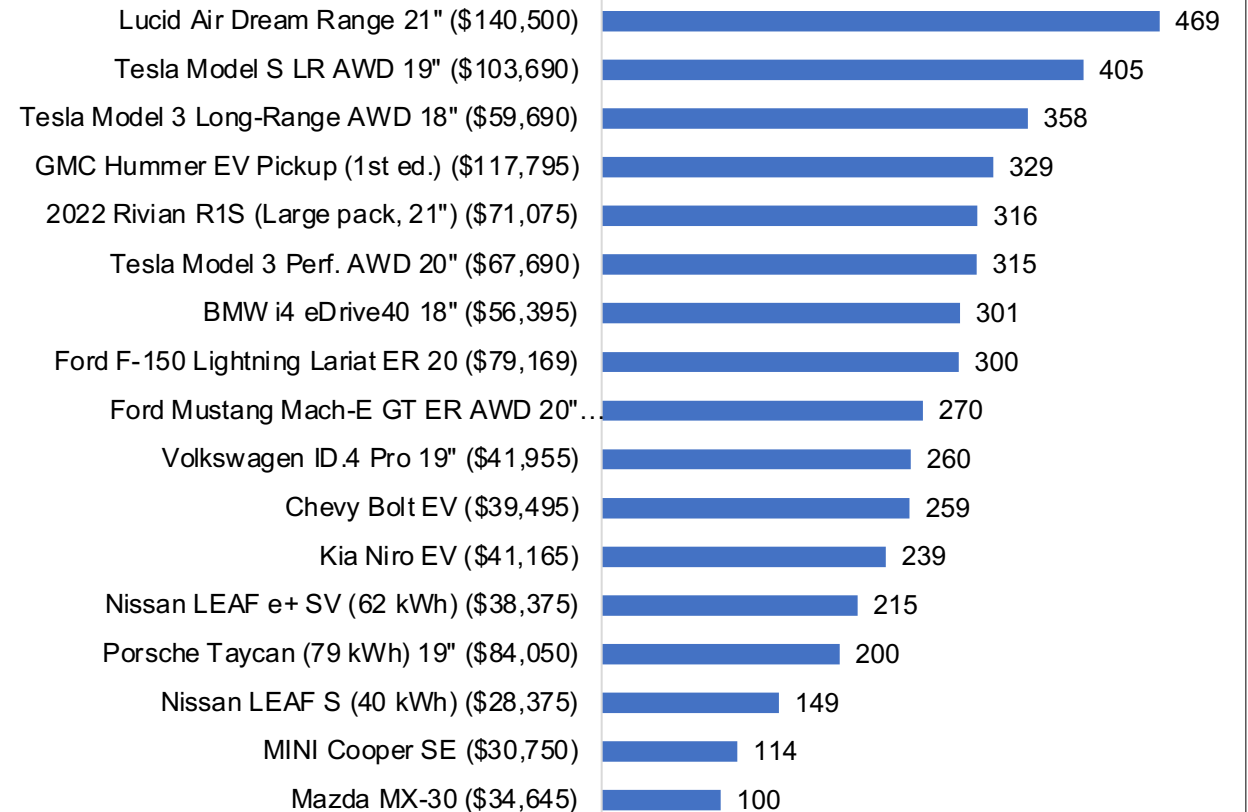


Performance Considerations

“As the primary driver for our electric bus, I am impressed by its power climbing the long and steep Gore Pass on my route...I have been in the school bus transportation industry for almost 25 years, and have never been as impressed with any bus to this extent. My students feel extremely safe and are proud to be in a bus that "doesn't pollute". As the operator, I also feel very safe driving a vehicle that handles adverse weather with icy and snow packed roads so securely. ”

- Bethany Aurin, Transportation Director, West Grand School District, Colorado

EV Ranges of a Selection of 2022 US Models
(Base price, unsubsidized = MSRP + DST)

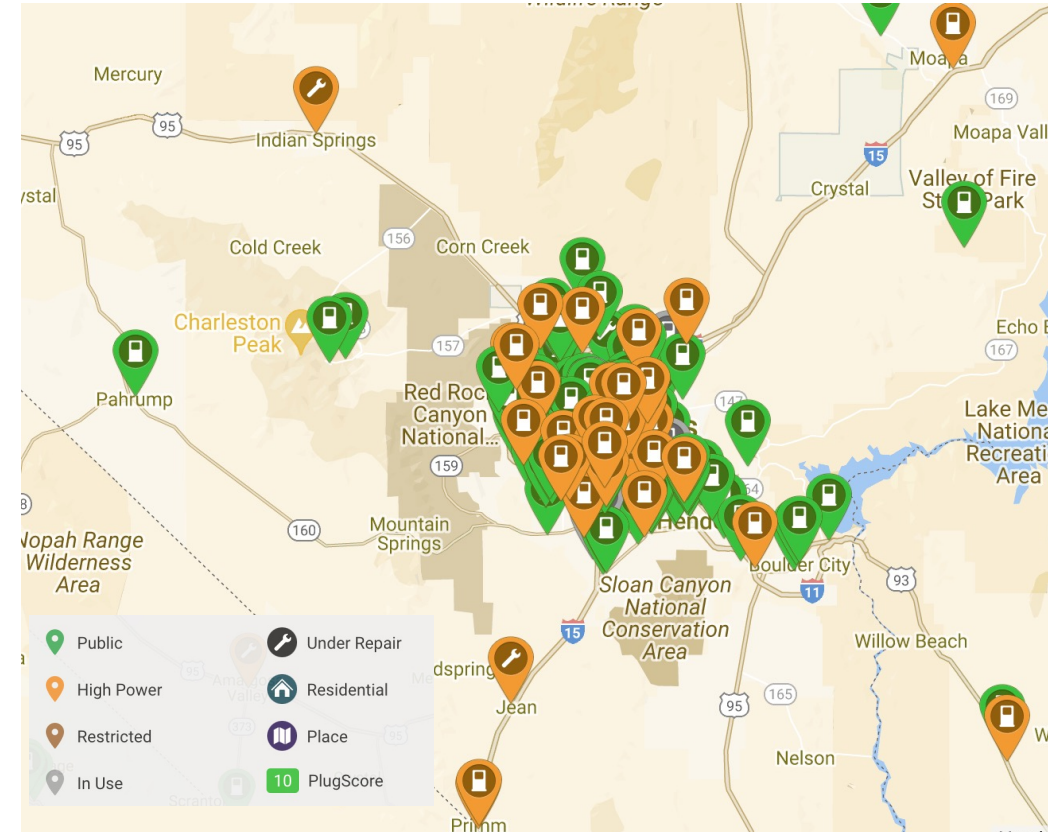


Source: InsideEVs (February 11, 2022), based on EPA ranges

EV Charging Infrastructure

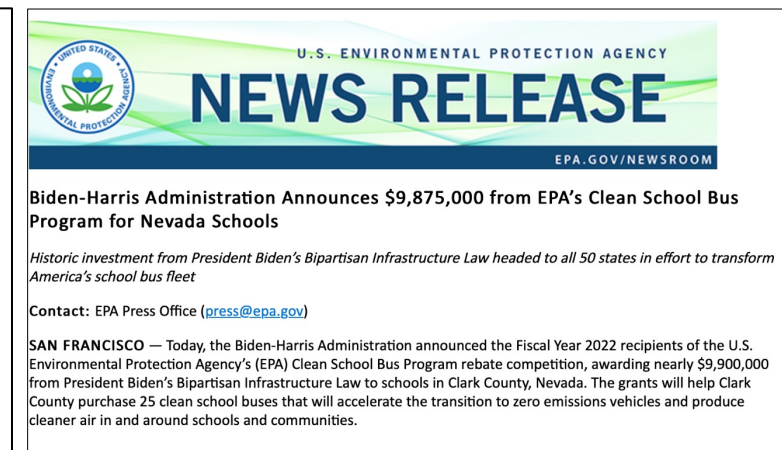
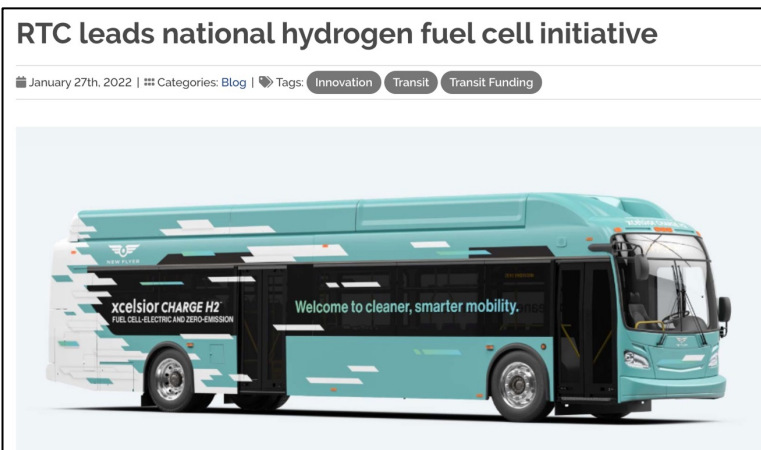
- Depot charging is the least cost option for EVs with a range less than their typical route.
- Where depot charging is not possible due to route length or infrastructure constraints, over-the-road, public charging is available.
- There are currently 47,000 charging station locations with more than 120,000 ports across the nation, and growing rapidly.

EV Charging Stations in the Clark County Area



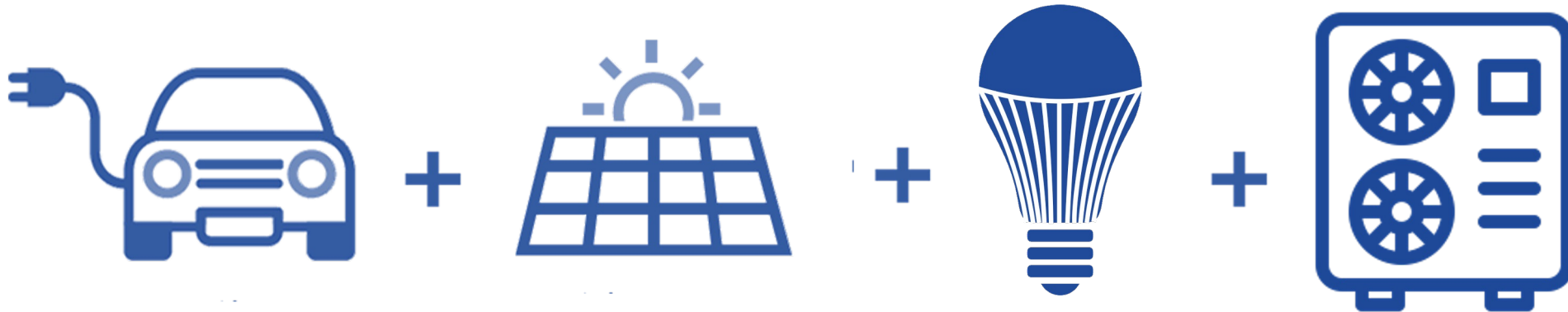
Source: PlugShare (November 2022)

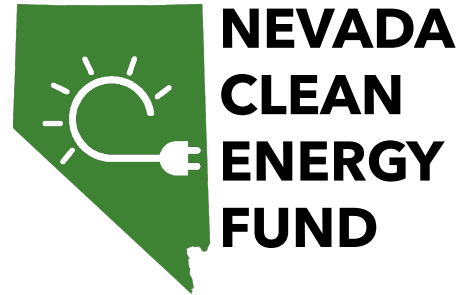
Real-World Examples



Beyond Vehicles: Federal Incentives for Efficiency, Electrification, & Solar

- **Investment Tax Credit** (Section 48): base credit covers 30% of clean energy project costs for commercial projects <1 MW, with bonuses for meeting domestic content minimums, low-income projects, and siting in an “energy community”, up to a max of 70%. State & tribal governments, tax-exempt entities, and rural coops can access ITC through “direct pay.”
- **Commercial Buildings Energy Efficient deduction** (Section 179D): deduction for businesses and non-taxable entities achieving 25-50% reductions in energy use. Base deduction amount is \$0.50/square foot and increases up to \$5.00/square foot with higher energy savings and if prevailing wage and apprenticeship requirements are met.
- **Myriad incentives and rebates for residential and multifamily housing**, including up to \$14,000 per unit for efficient electric appliances and measures (income-qualifying).





Thank You

Kirsten Stasio, Executive Director

<https://nevadacef.org/>

Twitter: [@NevadaCEF](https://twitter.com/NevadaCEF)

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Appendix

Other Clean Energy Incentives in the Inflation Reduction Act
Additional Information on NCEF
Additional Information on the Nevada Energy Landscape

Investment Tax Credit (ITC) for Commercial Projects <1 MWac

- Base credit covers 30% of clean energy project costs, with a 20% bonus for qualified low-income projects (+ other potential bonuses for a max of 70%).
- State and tribal governments, certain tax-exempt entities, and rural cooperatives can access these tax credits through “direct pay.”

| | |
|--|------------|
| Base ITC ^{1, 2} | 30% |
| + Bonus for Meeting Domestic Content Minimums ³ | 10% |
| + Bonus for siting in “Energy Community” | 10% |
| + Allocated Low-Income Bonus ⁴ <ul style="list-style-type: none">• Projects Located in Low-Income Communities or Indian Land• OR Bonus for Qualified Low-Income Projects | 10% 20% |

¹ Bonuses are effective for projects in service after December 31, 2022.

² Entities can choose between an investment tax credit (ITC) and a production tax credit (PTC). The ITC includes bonuses for projects benefiting low-income communities.

³ Must include 100% domestic iron/steel and an increasing percent of manufactured goods over time.

⁴ Allocation will be based on an award process developed by the Secretary of the Treasury. Max 1.8 GWac/year.

High-Efficiency Electric Home Rebate Program

| Upgrade | The Lesser of: | | |
|--|--------------------------------|---|---|
| | Maximum Rebate \$ Amount | Maximum Rebate as Percent of Cost | |
| | | Households 80%- 150% of Area Median Income* | Households Less Than 80% of Area Median Income* |
| Heat pump water heater | \$1,750 | 50% | 100% |
| Heat pump for HVAC | \$8,000 | 50% | 100% |
| Electric stove, cooktop, range, oven, or heat pump clothes dryer | \$840 | 50% | 100% |
| Electric load service center | \$4,000 | 50% | 100% |
| Insulation, air sealing and ventilation | \$1,600 | 50% | 100% |
| Electric wiring | \$2,500 | 50% | 100% |
| Maximum total across all upgrades | \$14,000 | 50% | 100% |

Source: SEIA. Inflation Reduction Act Summary. 2022

- Eligible entities include:
 - a) Low- or moderate-income households
 - b) A multifamily building owner in which $\geq 50\%$ of residents are low- or moderate-income
 - c) A governmental, commercial, or nonprofit entity carrying out electrification projects on behalf of (a) and (b)
- The IRA provides \$4.275B for grants to State Energy Offices and \$224 million to Tribes for this rebate program.

Heat Pump Economics

- Heat pumps have higher upfront costs than a traditional gas furnace, but can yield lifetime fuel cost savings dependent on local climate and the price differential between electricity and gas.
- An \$8,000 rebate (even a \$4,000 rebate) makes heat pumps the more profitable option throughout Nevada.

Heat Pump vs. Traditional Gas Furnace – Net Present Value (NPV) of Lifetime Costs

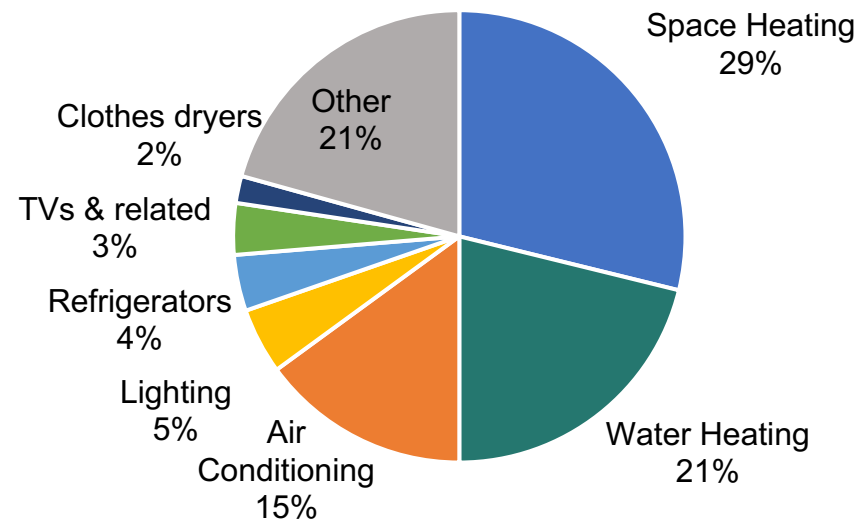
| City | NPV – No Rebate | NPV – \$8k Rebate |
|----------------------------|-----------------|-------------------|
| Las Vegas New Construction | (\$252) | (\$8,252) |
| Las Vegas Retrofit | (\$416) | (\$8,416) |
| Reno New Construction | \$3,305 | (\$4,695) |
| Reno Retrofit | \$2,188 | (\$5,825) |

Numbers are from a 2022 study by the Southwest Energy Efficiency Project (SWEET) that assume a 15-year life at 2.5% discount rate.

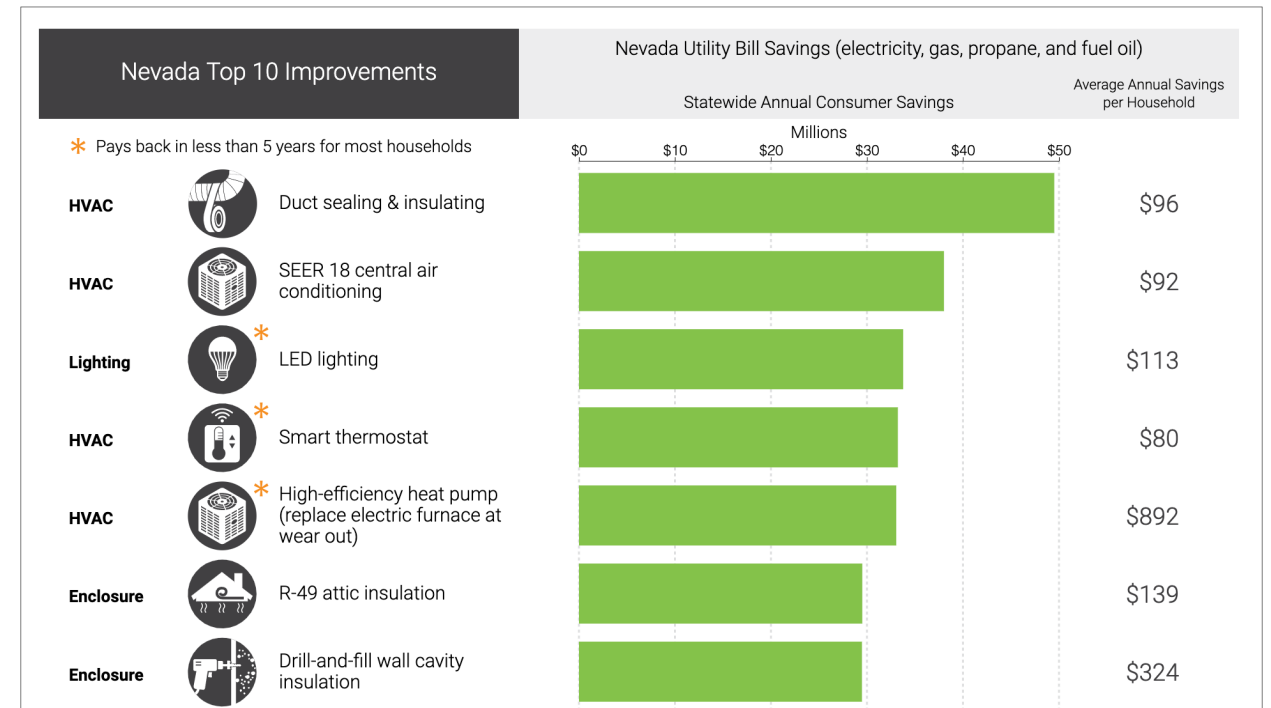
Home Owner Managing Energy Savings (HOMES) Rebate Program

- Rebates for home energy retrofits up to \$8,000 per home or unit. Amount scales based on energy savings, income bracket, and project costs.
- The IRA provides \$4.3B for grants to State Energy Offices to establish the HOMES rebate program. Ultimate rebate amounts are subject to state implementation (IRA sets max values which could increase for LMI households).
- Cannot be combined with High-Efficiency Electric Home Rebate Program.

**Residential Energy Consumption by End Use
US Mountain South (NV, AZ, NM)**



Source: US EIA Residential Energy Consumption Survey (2022); NREL ResStock (2017)



Home Owner Managing Energy Savings (HOMES) Rebate Program

- The IRA provides \$4.3B for grants to State Energy Offices to establish the HOMES rebate program. Ultimate rebate amounts are subject to state implementation (IRA sets max values which could increase for LMI households).
- Rebates for home energy retrofits up to the lesser of \$8,000 per home or 80% of project costs if the project saves at least 35%. Lesser amounts available if projects save <35%.
- Multi-family rebates are also supported with different rebate amounts.
- Cannot be combined with High-Efficiency Electric Home Rebate Program.

Single-Family

- For retrofit projects modeled energy savings at least 20% and up to 35%, the lesser of \$2,000 or 50% of project costs
- For retrofit projects modeled energy savings more than 35%, the lesser of \$4,000 or 50% of project costs
- For measured energy savings, of at least 15%, an amount scaled relative to average home energy use in the state where the project is installed where \$2,000 would be awarded for 20% energy savings, or 50% of project cost

Multi-Family

- For retrofit projects modeled energy savings at least 20% and up to 35%, \$2,000 per dwelling unit and maximum of \$200,000 per multifamily building
- For retrofit projects modeled energy savings more than 35%, \$4,000 per dwelling unit and a maximum of \$400,000 per multifamily building
- For measured energy savings, of at least 15%, an amount scaled relative to average home energy use in the state where the project is installed where \$4,000 would be awarded for 20% energy savings or 80% of project cost

Source: SEIA. Inflation Reduction Act Summary. 2022

Energy Efficiency Tax Credits

- **Commercial Buildings Energy Efficient deduction (179D):** deduction for businesses and non-taxable entities achieving 25-50% reductions in energy use. Base deduction amount is \$0.50/square foot and increases up to \$5.00/square foot with higher energy savings and if prevailing wage and apprenticeship requirements are met.
- **Energy Efficiency Home Improvement credit (25C):** households can deduct up to 30% of the cost of upgrades, including heat pumps, insulation, and electrical panel upgrades. Deductions are limited to \$600/measure, up to \$1,200 per household per year, with the exception of heat pumps (for water heating or HVAC), which can deduct up to 30% of costs.
- **New Energy Efficient Home credit (45L):** provides up to \$5,000 to developers to build homes that qualify for DOE's Zero Energy Ready Homes standard and up to \$2,500 for homes that qualify for DOE's Energy Star standard. Applies to new single family, multifamily and manufactured homes, and existing homes that undergo a deep retrofit.

| Home Type | Qualification Requirement | Prevailing Wage Requirement | Credit Amount |
|-------------------|---------------------------|-----------------------------|---------------|
| Single Family* | EnergyStar | No | \$2,500 |
| Single Family* | ZERH | No | \$5,000 |
| Manufactured Home | EnergyStar | No | \$2,500 |
| Manufactured Home | ZERH | No | \$5,000 |
| Multifamily | EnergyStar | No | \$500 |
| Multifamily | ZERH | No | \$1,000 |
| Multifamily | EnergyStar | Yes | \$2,500 |
| Multifamily | ZERH | Yes | \$5,000 |

*Single Family includes site-built and modular single family homes, duplexes and townhomes.

Federal New Clean Vehicle Tax Credit

- aka IRC Section 30D
- **Available:** August 16, 2022 through December 31, 2032
- **Eligible vehicles:**
 - Drive train: fully electric (EV) and fuel cell electric vehicles (FCEV)
 - Battery size minimum: ≥ 7 kWh with external charging
 - Weight: GVWR $< 14,000$ lbs
 - MSRP limits: $\leq \$80k$ for vans, SUVs & pickups, $\leq \$55k$ for sedans and others
 - Domestic content requirements:
 - Final assembly: must occur in North America (<https://afdc.energy.gov/laws/electric-vehicles-for-tax-credit>)
 - Critical minerals: starting in 2023, at least 40% of critical minerals must be extracted/processed in the US or a country with a free trade agreement with the US. % requirement increases by 10% each year to 80% in 2027 & thereafter.
 - Battery components: starting in 2023, at least 50% of the battery's components must be manufactured/assembled in North America. % requirement increases by 10% each year to 100% in 2029 & thereafter.
 - Other requirements: any vehicle manufactured primarily for use on public streets, roads, & highways
- **Eligible recipients:** individuals with modified adjusted gross income (MAGI) $\leq \$300,000$ for married joint filers, $\leq \$225,000$ head of household, $\leq \$150,000$ for single filers.
 - For buyers with insufficient taxable income, credit can be transferred to eligible dealer starting 12/31/2023.
- **Tax credit amount** of up to \$7,500:
 - \$3,750 for vehicles meeting critical mineral requirements
 - \$3,750 for vehicles meeting battery component requirements

Federal Used Clean Vehicle Tax Credit

- aka IRC Section 25E
- **Available:** August 16, 2022 through December 31, 2032
- **Eligible vehicles:** previously-owned clean vehicles having a model year that is two years earlier than the calendar year; credit can only be claimed in the first transfer of the vehicle; vehicle must be purchased from a dealer.
 - Drive train: fully electric (EV) and fuel cell electric vehicles (FCEV)
 - Battery size minimum: ≥ 7 kWh with external charging
 - Weight: GVWR $< 14,000$ lbs
 - Sales price limit: $< \$25,000$
 - Domestic content requirements: None
 - Other requirements: any vehicle manufactured primarily for use on public streets, roads, & highways
- **Eligible recipients:** individuals with MAGI $\leq \$150,000$ for married joint filers, $\leq \$112,500$ head of household, $\leq \$75,000$ for single filers. Limited to one credit every 3 years.
 - For buyers with insufficient taxable income, credit can be transferred to eligible dealer starting 12/31/2023.
- **Tax credit amount:** the lesser of \$4,000 or 30% of the sales price

The NCEF Team

NCEF's Executive Director and Board of Directors bring expertise and networks in energy, investing, real estate, economic development, finance, policy, industry, and education.



Kirsten Stasio, Executive Director

- 10+ years of clean energy investment and policy experience; 7 years at MAP, a \$2.5B energy investment firm
- MBA & MS, Stanford University



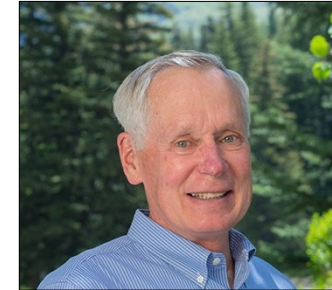
Sharath Chandra, Board Chair

- Real Estate Administrator, Nevada Department of Business and Industry
- 15+ years of experience in affordable housing, NV gov't



Les Lazareck, Board Vice-Chair

- Managing Member, Home Energy Connection
- 20+ years as a building performance specialist; energy auditor



Robert Johnston, Board Treasurer

- 30+ years experience in utility regulation, clean energy and climate policy
- Attorney



Michael Brown, Board Member

- Executive Director, Nevada Governor's Office of Economic Development
- President, Barrick Gold USA (24 years); US Treasury (8 years)



Guy Snow, Board Member

- President of SolarNV
- 20+ years as an electrical and solar contractor



Sandy O'Laughlin, Board Member

- Commissioner, Nevada Financial Institutions Division
- 30+ years of banking experience



David Bobzien, Board Member

- Director of the Nevada Governor's Office of Energy
- 20+ years of experience in Nevada local government and public policy



Jason Geddes, Board Member

- Energy & Sustainability Manager, Washoe County School District
- Nevada System of Higher Education Regent



Chris Wile, Board Member

- Assistant Business Manager / Business Agent, IBEW Local 357
- >1 GW of solar + storage sites in Nevada

NCEF Provides Accessible Financing for Clean Energy Projects

TYPES OF PROJECTS

Energy Efficiency

Renewable Energy

Energy Storage

Building Electrification

EVs & EV Chargers

FOCUS AREAS

Single-Family Homes

Multifamily Housing

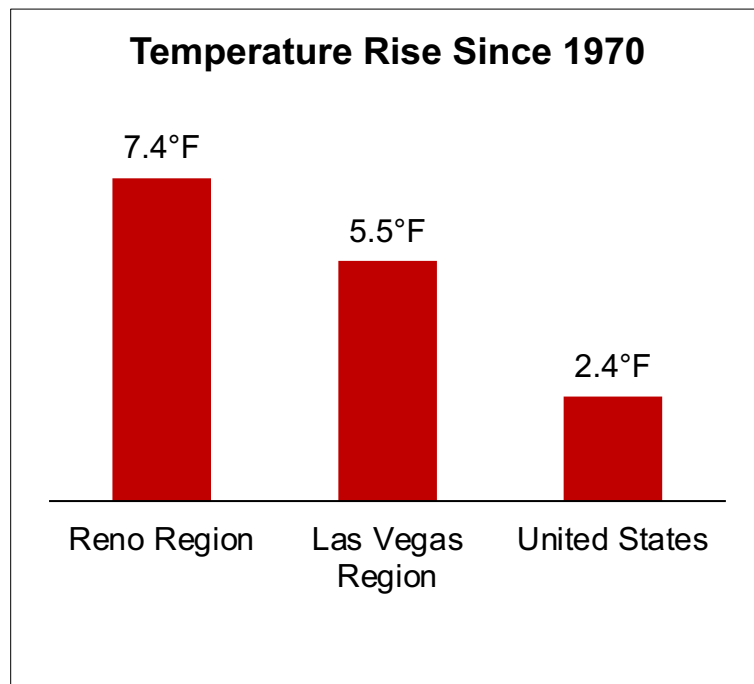
Commercial Buildings

Fleet Electrification

Small-Scale Solar + Storage

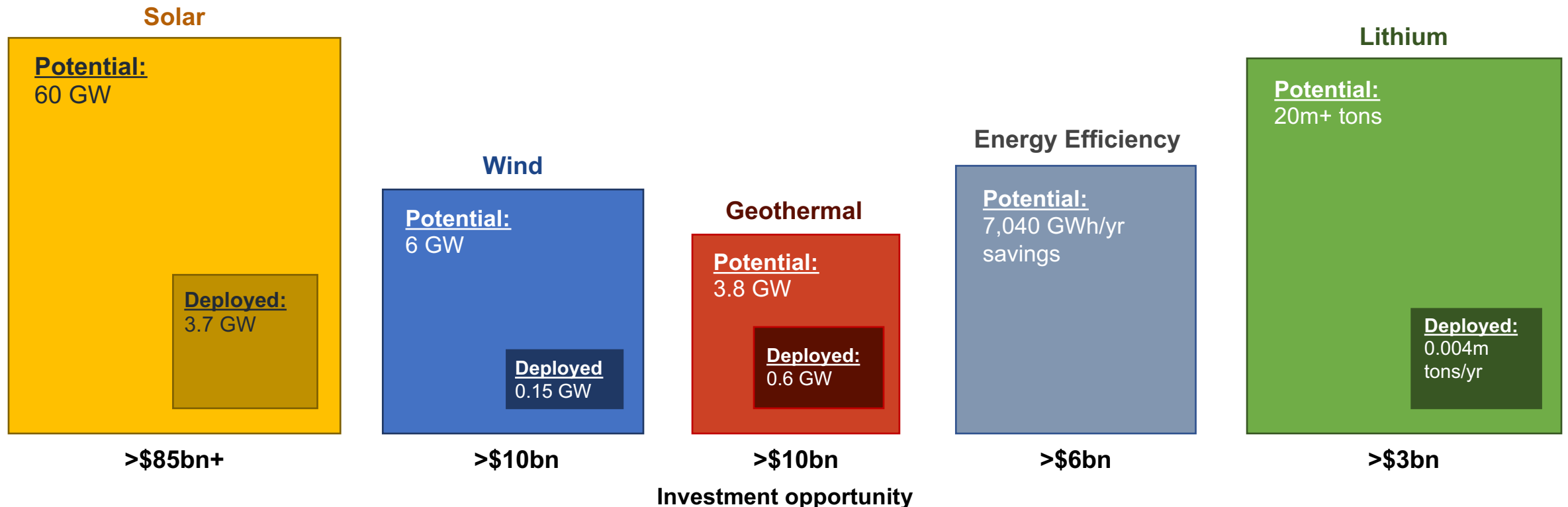
The Need for Affordable, Clean Energy is Becoming More Urgent

- Since 1970, Las Vegas and Reno temperatures rose 5.5°F and 7.4°F, making them the fastest-warming cities in the US and driving up A/C demand.
- Aridification of the southwestern US is reducing water supplies, further straining power resources and prices in the region.



Nevada Has Immense Potential to Drive Renewable Energy, EV Growth in the West and the World

- Renewables meet ~30% of Nevada's electricity needs today. Nevada has a goal of sourcing 50% of its electricity needs from renewables by 2030 and a net-zero GHG emissions target by 2050.
- Nevada has significant untapped solar, geothermal, wind, and energy efficiency resources that could be economically developed, and continued potential growth as a key player in battery and EV supply chains.





Business Funding Opportunities for Alternative Fuel Vehicle Conversion

Adam Grant

Director, Electrification & Energy Services



NV Energy Transportation Electrification Programs



NV Energy has two plans that are going to support Electric Vehicle (EV) charging infrastructure in the state of NV.

- Economic Transportation Electrification Plan (ERTEP)
- Transportation Electrification Plan (TEP)

ERTEP Goals

- Economic Recovery
- Historically underserved Communities
- Commercial sites
- Make charging more accessible
- Electric Highway

TEP Goals

- Support Economic infrastructure
- Commercial & Residential sites
- Make charging more accessible



Economic Recovery Transportation Electrification Plan (ERTEP)

Overview



Accelerate Transportation Electrification

Plan includes nearly \$100 million total to build **1,500+ EV charging ports** between 2022 and 2024 in Nevada



Support Economic Recovery & Job Creation

Investing in **job training** and expanding charging station availability to **support the tourism industry**








Prioritize Historically Underserved Communities

Dedicating **\$40 million+** of funding to directly benefit **historically underserved communities**

Economic Recovery Transportation Electrification Plan (ERTEP)

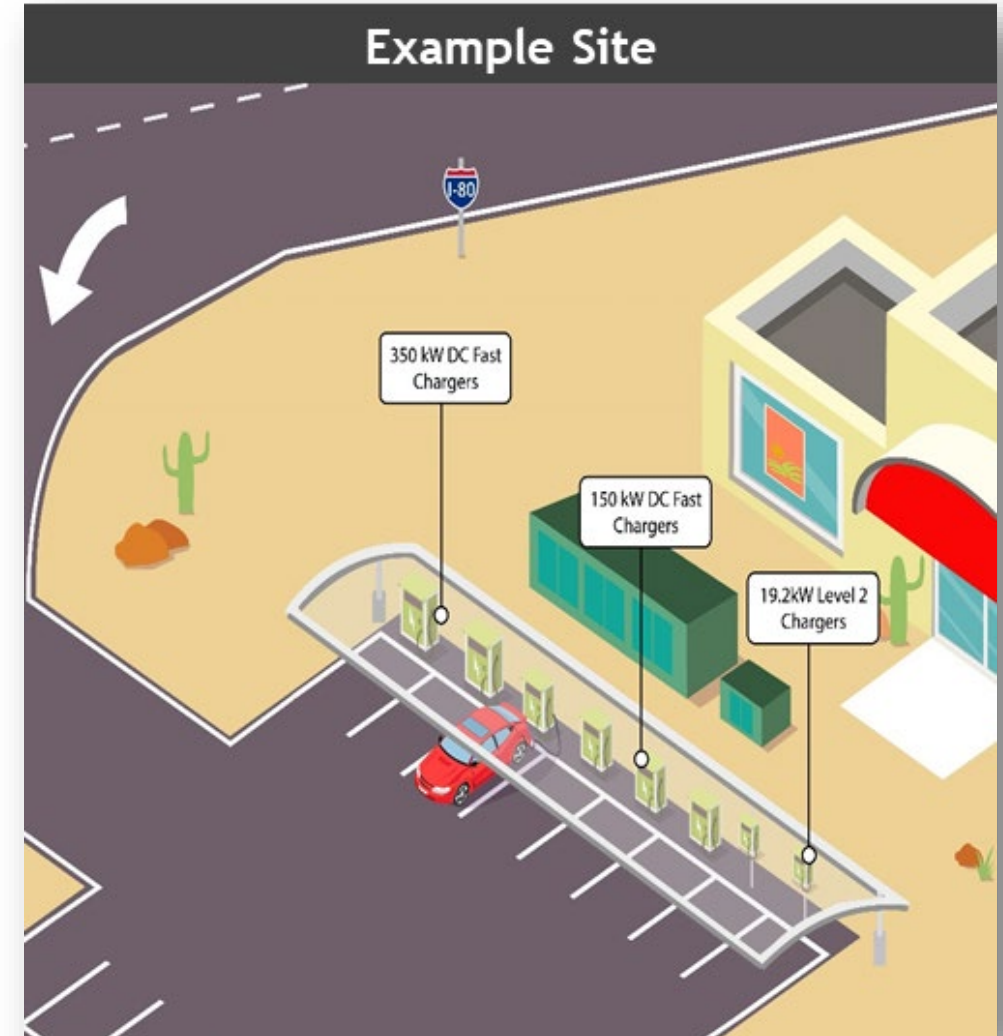
Overview

| | Program | Focus |
|---|--|---|
|  | Interstate Corridor Charging | Public charging along eligible interstate corridors to facilitate EV travel to and from major metros. |
|  | Urban Charging | Public charging at eligible downtown or commercial locations . |
|  | Public Agency Electric Vehicle Charging | Public charging at eligible community centers , universities/ colleges and capitol complexes . |
|  | Transit, School Bus & Transportation Electrification | Support transit electrification, electric school bus vehicle-to-grid trials , and non-governmental fleet electrification . |
|  | Outdoor Recreation and Tourism | Public charging at eligible tourist and outdoor recreation destinations. |

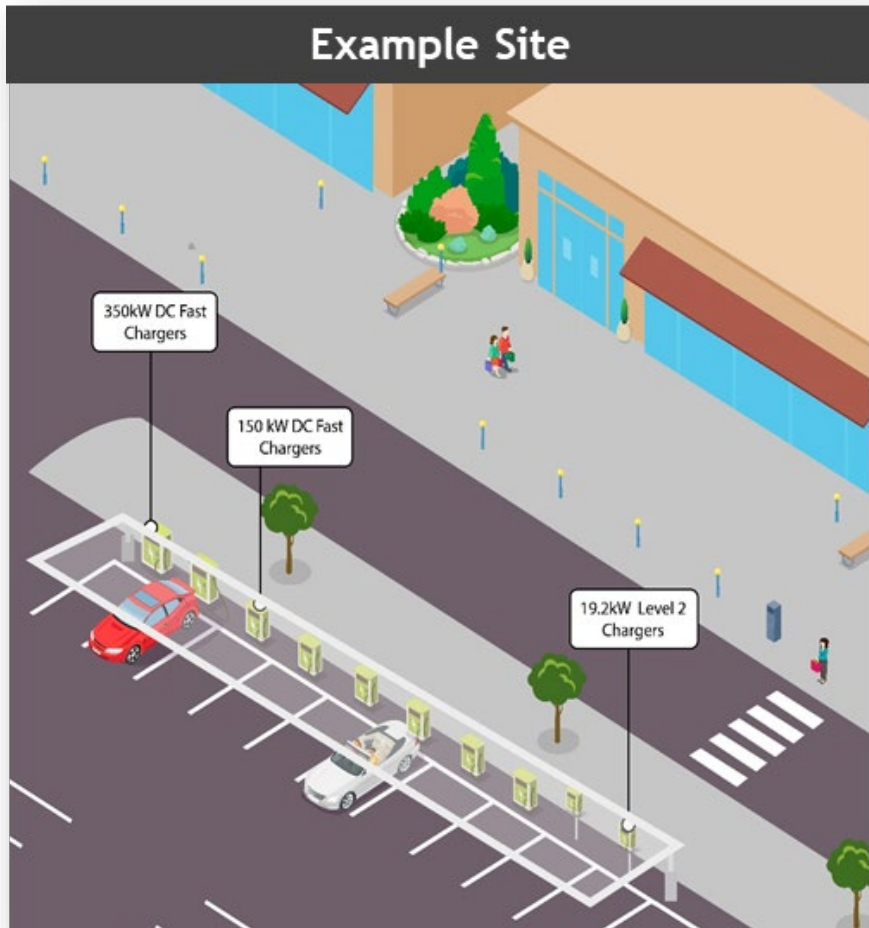
Economic Recovery Transportation Electrification Plan (ERTEP)

Interstate Corridor

- Interstate Corridor Depot program will increase charging infrastructure on interstate corridors to facilitate EV travel between Las Vegas and the Reno-Tahoe tourist areas.
- Most drivers using this infrastructure are on their way to a destination and seek to charge their vehicles as quickly as possible.
 - Local EV drivers will also benefit from this infrastructure.
 - Selected sites will offer:
 - multiple charger types accessible to the public
 - shaded canopies
 - larger parking spaces to fit both light and medium-duty vehicles.



Economic Recovery Transportation Electrification Plan (ERTEP)



Urban Charging

- Urban Charging Depots program will provide public electric vehicle (EV) charging in eligible downtown and commercial areas with an emphasis on historically underserved communities.
- Program provides charging infrastructure in residential and commercial areas for:
 - Visitors, residents, employees, transportation network companies (i.e. rideshare, taxis), and local fleet vehicles.
 - The program also supports electric micro-mobility options like e-bikes and e-scooters in select downtown locations.

Economic Recovery Transportation Electrification Plan (ERTEP)

Public Agency Charging



- The Public Agency Charging program serves the public, workplace and fleet electric charging needs of federal, state and local government agencies by reducing the financial barrier for the deployment of electric vehicle charging infrastructure.
- The NV Energy team will provide **technical advisory services** to help eligible site hosts determine where to install charging stations in alignment with the program site profile.
- Beyond technical requirements like power capacity and parking availability, ideal sites will also have 24/7 access, dusk to dawn lighting and nearby public amenities.

Economic Recovery Transportation Electrification Plan (ERTEP)



Tourism Incentive

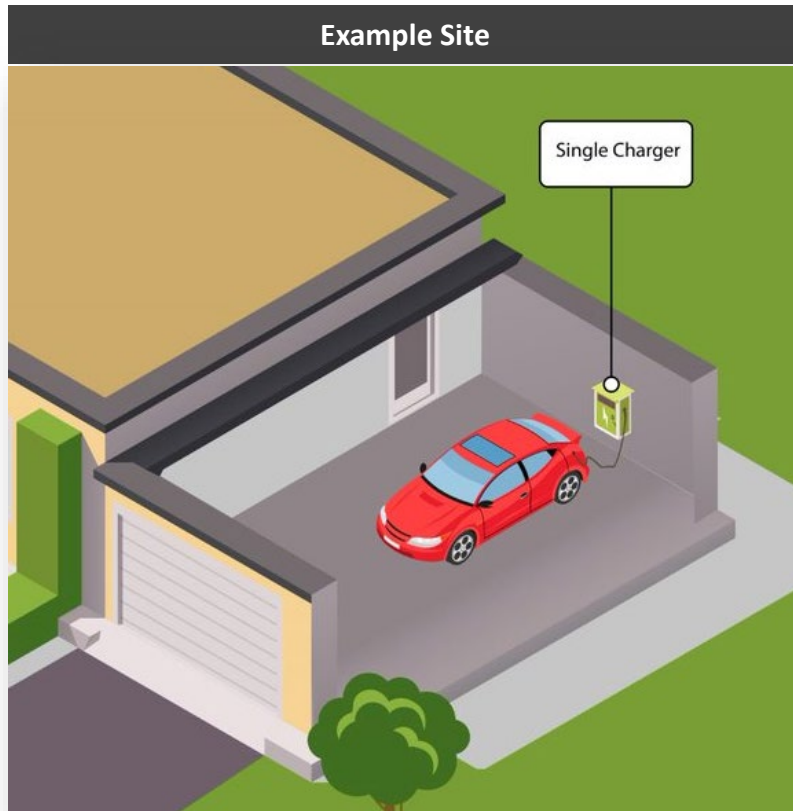
- Tourism Incentive Program aims to provide funding to serve the electric vehicle (EV) charging infrastructure needs of the tourism economy in NV Energy's service territory.
- The creation of a critical network of charging infrastructure centered around Nevada's tourism economy will:
 - boost economic value in the surrounding areas through increased foot traffic
 - advanced transportation electrification, reduced emissions
 - improved air quality at popular destinations.

Transportation Electrification Plan (TEP)

Overview

- NV Energy filed the Transportation Electrification (TE) Plan on September 1, 2022. The plan has been developed using the objectives required by [Senate Bill 448](#).
 - Accelerate transportation electrification with support for all customer classes
 - Design programs to maximize benefits including flexibility and minimize grid impacts
 - The first TE Plan will only cover two years 2022-2024
 - As the plan goes through the PUCN, it is subject to change prior to going live
- The TEP considers designing the following programs for customers:
 - Single-family homes
 - Multi-unit dwellings
 - Fleet (e.g. transit, commercial, governmental, school bus)
 - Workplace
- Design programs to benefit historically underserved communities





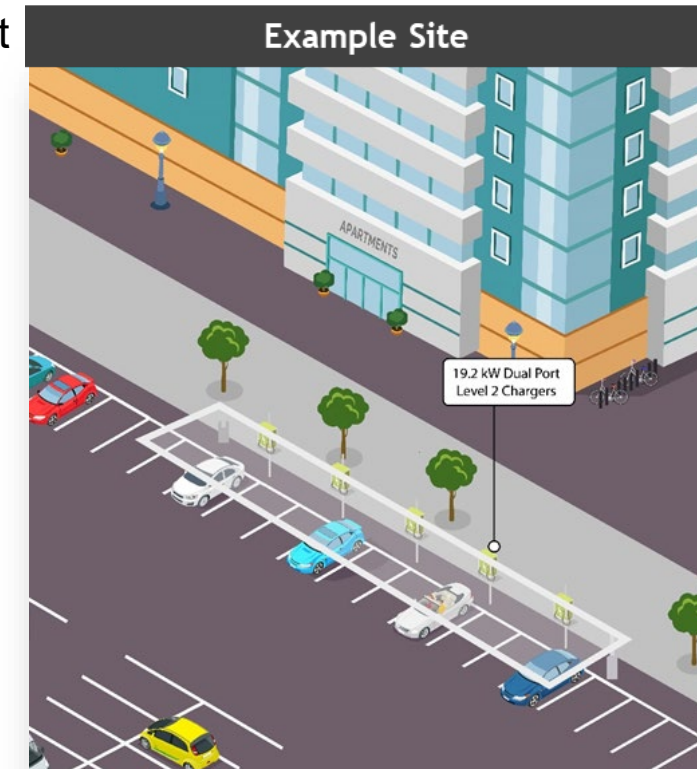
Residential Charging Incentive Program

- **Primary objectives:**
 - Facilitate the deployment of charging infrastructure to support residential electric vehicle charging at homes with additional financial support for income qualified customers.
 - Incentive:
 - 75% of approved costs (100% if income qualified) up to \$12,812
 - Operations and maintenance incentive:
 - Up to \$200 per year for five years.
 - If project requires an electrical panel upgrade, the incentive will be reduced by any applicable rebates received in the High-Efficiency Electric Home Rebate Program in the Inflation Reduction Act.
- **Target Customers**
 - Residential customers - renters must receive written permission from property owner

Transportation Electrification Plan (TEP)

Multi-family Charging Infrastructure Program

- **Primary objectives:**
 - Facilitate the deployment of charging infrastructure to support charging for residents at multi-family properties with assigned or unassigned parking.
 - 50% of the program budget will be reserved for multi-family residences in Historically Underserved Communities (HUC) for the first three months after program launch
 - Costs for charging equipment and O&M will be the responsibility of the customer or NV Energy depending on the ownership option selected
 - NV Energy-owned
 - Customer owned
 - Customer Ownership Incentive:
 - Up to \$6,000 per level 2 charger.
 - Historically Underserved Community or government-owned sites,
 - \$8,000 per level 2 charger.
 - The operations and maintenance site incentive:
 - \$200 per charger per year for five years.
- **Target Customers**
 - Multi-family property owners and managers
 - NV Energy will identify specific properties in HUC with insufficient access to public charging



Transportation Electrification Plan (TEP)



Fleet Charging Infrastructure

▪ **Primary objectives:**

- Provide and Facilitate the deployment of charging infrastructure for governmental and non-governmental electric fleet vehicle charging at workplaces
- Costs for charging equipment and O&M will be the responsibility of the customer or NV Energy depending on the ownership option selected
 - NV Energy-owned
 - customer owned
- **Customer Ownership Incentive:**
 - up to \$6,000 per level 2 charger and \$48,750 per 150 kW DC fast charger.
 - Historically Underserved Community or government-owned sites:
 - \$8,000 per level 2 charger and \$65,000 per 150 kW DC fast chargers.
- The operations and maintenance site incentive offered
 - \$200 per charger per year for level 2 chargers
 - \$600 per charger per year for 150 kW DC fast chargers for five years.

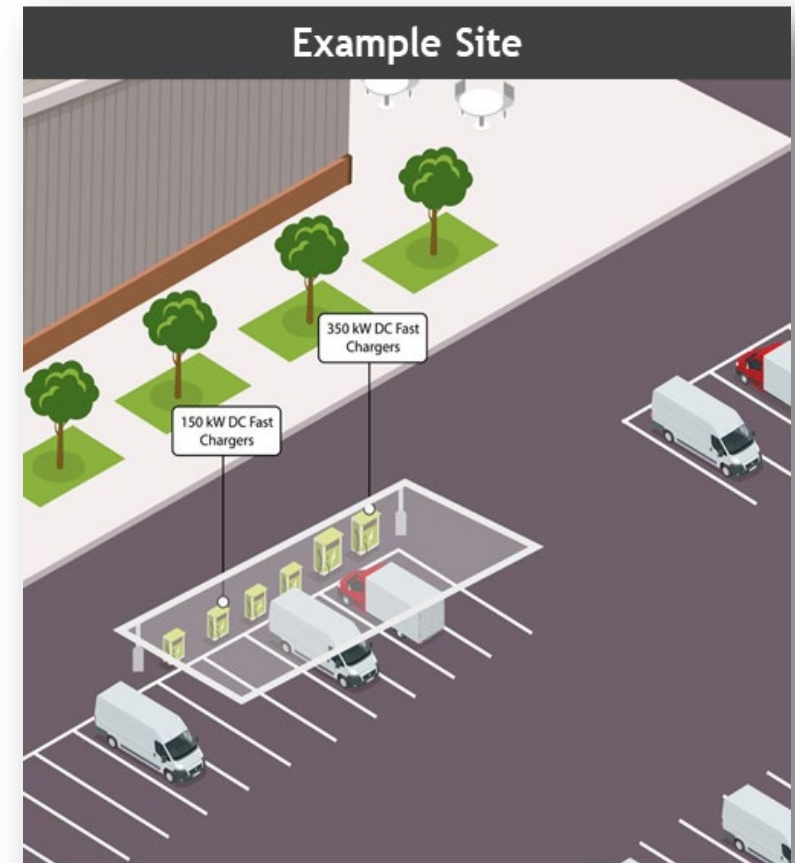
▪ **Target Customers**

- Governmental and non-governmental customers with fleets



Fleet Charging Depot Program

- **Primary objectives:**
 - Facilitate the deployment of charging infrastructure to support electric vehicle charging for use by employees at workplaces such as office complexes, campuses, governmental buildings, hospitals, and casinos.
 - Costs for charging equipment and O&M will be the responsibility of the customer or NV Energy depending on the ownership option selected
 - NV Energy-owned
 - Customer owned
 - Customer Ownership Incentive: up to \$6,000 per level 2 charger.
 - Historically Underserved Community or government-owned sites:
 - up to \$8,000 per level 2 charger
 - The operations and maintenance site incentive offered:
 - \$200 per charger per year for five years.
- **Target Customers**
 - Commercial customer property owners and managers of workplaces
 - Governmental entities and casinos will be prioritized first in outreach



Transportation Electrification Plan (TEP)

Workplace Charging Infrastructure



- **Primary objectives:**
 - Facilitate the deployment of charging infrastructure to support electric vehicle charging for use by employees at workplaces such as
 - Office complexes
 - Campuses
 - Governmental buildings
 - Hospitals
 - Casinos
 - Costs for charging equipment and O&M will be the responsibility of the customer or NV Energy depending on the ownership option selected
 - NV Energy-owned
 - Customer owned
 - Customer Ownership Incentive:
 - Up to \$6,000 per level 2 charger.
 - Historically Underserved Community or government-owned sites
 - Up to \$8,000 per level 2 charger
 - The operations and maintenance site incentive offered:
 - \$200 per charger per year for five years.
- **Target Customers**
 - Commercial customer property owners and managers of workplaces

What We Offer

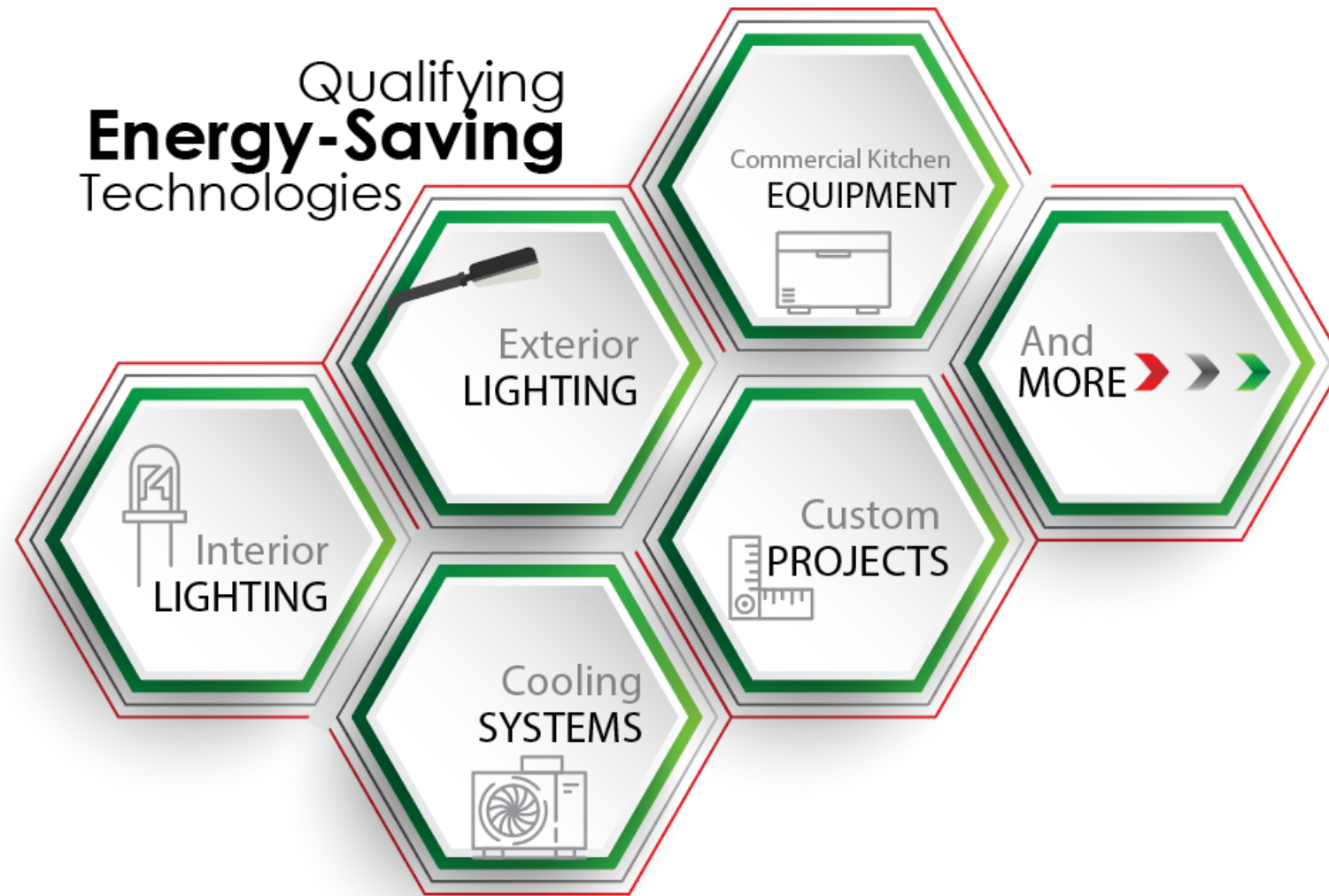
- Application Support
- Technical Services
- Free Virtual Education & Training
- Non-Profit Agency Grants
- Small Business Project Incentives
- Instant Discounts
- Retrofit Project Incentives
- New Construction Incentives



Customer Benefits

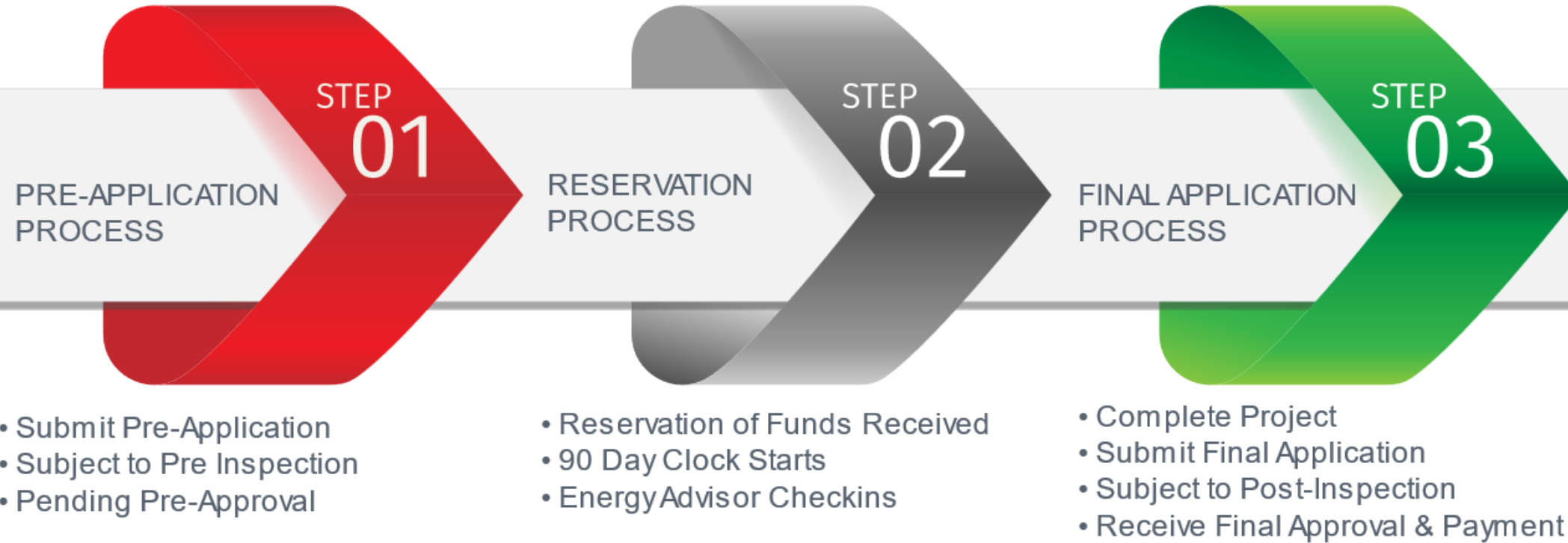
- Reduced Energy Expenses
- Reduced Carbon Footprint
- Annual Cash Savings
- Improved Comfort

Business Energy Services



Business Energy Services

Three Easy Steps to Saving



Save
Energy &
Money,
Year After
Year



Questions

Visit Our Website

<https://www.nvenergy.com/cleanenergy/ertep>

Visit the Transportation Electrification Plan(TEP) Filing

[22-09006 - NPC/SPPC 3rd IRPA \(nvenergy.com\)](#)