NEVADA TRANSPORTATION ELECTRIFICATION OVERVIEW

A review of national EV statistics and state-specific travel patterns and transportation electrification metrics
• DC-based policy tech firm started in 2015
• We equip businesses and policymakers to make strategic, informed decisions through the greater use of technology that aggregates publicly available information

Our Key Focus Areas
• **Access**: Collect and disseminate publicly available information.
• **Interpret**: Create technology to spur insights and conduct data-driven analyses.
• **Empower**: Strengthen policymakers, businesses, and non-profits’ ability to meet emerging challenges and identify and seize opportunities.
The EV Hub gives stakeholders from across the EV industry quick access to key data and information on the market, policies and regulations, and activities by the EV community. A one-stop shop for businesses, policy professionals, and the advocacy community to learn more about what’s going on in the EV market. A comprehensive platform for the EV community: www.atlasevhub.com

Free access for public agencies and Clean Cities Coordinators!
DATA SOURCES

• All national data is collected by Atlas
• State-specific metrics are either statewide or from 1 urban region in Nevada (Core Based Statistical Area):
  • Las Vegas (Las Vegas-Henderson-Paradise, NV)
• Caveats
  • National Household Travel Survey (NHTS) data is a survey (not population-level data)

Data Sources by Category

National Figures
  • Atlas EV Hub Dashboards

State Emissions
  • U.S. EPA/EIA
  • Union of Concerned Scientists

State Travel Behavior
  • Federal Highway Administration
  • 2017 National Household Travel Survey (NHTS)

State Mass Transit
  • National Transit Database
NATIONAL OVERVIEW

Review of EV sales, government funding, and market developments
The auto market overall is down 17 percent through September.

U.S. passenger EV sales rallied in Q3, only down 2% compared to 2019.

EV market holding steady around 2% of all light-duty vehicle sales and > 5% of passenger car sales.

Tesla accounts for 60% of sales since 2018.

NATIONAL EV SALES DOWN 19% THROUGH SEPTEMBER COMPARED TO 2019
$14 BILLION IN NEW PRIVATE INVESTMENT ANNOUNCED BETWEEN JULY AND OCTOBER

- Automakers and other stakeholders continue to rollout EV investment as sales recover
- $443 billion in global investment
  - $71 billion destined for U.S.
- $14 billion in new investment between July and October
- GM leads new investment push with $2 billion commitment in October
$1.25B IN ELECTRIC BUS AND TRUCK FUNDING

- Government programs have provided more than $1.25 billion for electric trucks and buses through October 2020
- Almost 60% going to electric transit buses
- Electric trucks and school buses each claim roughly 20%
- 20% of funding awarded through the VW Settlement
More than 14 new EVs introduced since July 2019
Luxury brands like BMW, Volvo and Porsche claim the most EV models
Ford, GM, and Fiat-Chrysler only claim 5 out of 52 EVs across all brands

NOW 52 EV MODELS OFFERED IN THE U.S.
Some new EVs have been delayed by COVID-19
Rivian and Tesla electric pickups expected in second half of 2021
Volkswagen ID4 crossover in production in Europe, will be made in U.S. in 2022
FAST CHARGING MARKET CONCENTRATED AND GROWING

• More than 18,800 fast charging ports
• More competition for market-leader Tesla
• Electrify America nationwide network reaches coast to coast
• ChargePoint entered the stock market through a reverse merger

* Estimated based on dates stations added to AFDC Station Locator

Source: Atlas EV Hub (www.atlasevhub.com)
Bloomberg New Energy Finance (BNEF) projects EVs to reach 60% of new passenger vehicles sales in the U.S. by 2040.

EVs only expected to account for 4% of new vehicles sales in 2023.

Electric buses and trucks to make up 64% and 15% of global fleets by 2040.

Source: BNEF
NEVADA OVERVIEW

Analysis of emissions and EV deployment and funding
75% of VW Settlement Funds Unspent

Announced Plans to Join ZEV Program in June 2020

In-state and regional partnerships targeting charging infrastructure rollout
NEVADA EV STATS THROUGH OCTOBER 2020

**EV Sales (through September 2020)**
- State Total: 11,194 (23rd in nation)
- Change 2019-2020 (Jan - September): +1%
- EVs per 1k People: 3.83 (14th in nation)
- Models Offered: 43 out of 52

**EV Charging Deployment**
- State Level 2 Total: 691 ports
- State DCFC Total: 303 ports (20th in nation)
- DCFC per 1k People: 0.10 (6th in nation)

**Approved Utility Investment**
- State Approved Total: $4.4 million
- Pending Investment: $0 million

**Government Funding for EVs**
- State Total since 2018: $10 million
- % of Total Awarded in 2020: 0%
Nevada ranks 39th of 50 states in total CO$_2$ emissions and 40th in energy consumption for all sectors per capita.

- Light-duty vehicles account for 51% of the state’s mobile emissions of criteria air pollutants.

Sources: EIA State Carbon Dioxide Emissions Data, EIA State Profiles
DRIVING EV IN NEVADA EQUAL TO 102 MPG GAS VEHICLE

- The state falls in NWPP grid region
- Driving an EV charged in NWPP region produces emissions comparable to 102-mpg vehicle
- This puts the state above the national average of 88 mpg

Source: Union of Concerned Scientists
ANNUAL EV SALES GROW BY 2.6X BETWEEN 2017 AND 2019

- 11k EVs sold in Nevada through September 2020
  - 23rd out of 50 states
- 23.8 EVs per 1,000 people
  - 14th out of 50 states
- Sales up 1% between January and September compared to 2019
- Most Popular EVs since 2019:
  - Tesla Model 3 (2,461)
  - Tesla Model X (521)
  - Tesla Model Y (417)
$10M awarded for EVs and EV charging in Nevada through October 2020

$5.4M from VW Settlement

EVs account for 100% of awards made through VW Settlement

73% of state's VW Settlement allocation unspent

School bus funding available from NV Energy

Grants for buses open

EV Awards

- $5,371,880 (55%)
- $2,975,000 (30%)
- $1,500,000 (15%)

Legend:
- Airport Support Ground Equipment
- Transit Bus
- Charging Station
NEVADA MOVES TO ADOPT ZEV PROGRAM

• In June 2020, Nevada Governor Steve Sisolak announced plans to join the California ZEV program
  • State would join 12 others requiring automakers to offer a certain percentage of EVs for sale in the state
• Nevada is already a part of REV West Plan
  • Plan establishes interstate coordination between AZ, ID, CO, MT, NM, UT, and WY on corridor charging infrastructure
• Nevada Electric Highway agreement between NV Energy and Office of Energy
  • Target to install DC fast charging along I-95 connecting Reno and Las Vegas throughout 2020
A review of vehicle miles traveled (VMT) statewide and travel choices in Las Vegas using data from 2017 National Household Travel Survey
PASSENGER VEHICLES ACCOUNT FOR 77% OF VMT IN NEVADA

- Trucks, including light-duty, account for 22% of VMT in state
- Drivers in Las Vegas reported an average 9,545 annual VMT
  - Lower than average of 11,620 annual VMT across 52 most populous U.S. metros*

* Combined Statistical Areas with a population of more than 1 million

In urban Nevada, personal vehicles made up 92% of reported annual VMT. Average across 52 major U.S. metro areas* was 90%. Urban drivers in Las Vegas drive more pickups compared to average across major 52 U.S. metro areas.

*Combined Statistical Areas with a population of more than 1 million

Source: https://nhts.ornl.gov/
Transit buses are 2nd most popular travel mode after passenger vehicles in urban Nevada.

No reported train in metro Nevada.

Bus travel in Nevada roughly equals national average.
PUBLIC TRANSIT USE

A review of transit patterns in major urban areas using data from National Transit Database
TRANSIT USE HIGHER IN LAS VEGAS

- Per person transit bus usage double in Las Vegas compared to Reno
- Only metro rail services in Nevada are in Las Vegas
- Vanpool is a popular mode of transit travel in Reno

Annual Passenger Transit Miles Per Capita

FEW ELECTRIC TRANSIT BUSES REPORTED IN NEVADA

• Transit agencies awarded $3 million for electric transit bus procurement since 2018
• Neither Las Vegas nor Reno reported passenger miles on battery electric transit in 2018
• Reno reports 21 electric buses in their fleet as of 2020
• Las Vegas has no reported electric transit buses
• CNG buses dominate the Las Vegas fleet

RENO HAS THE ONLY ELECTRIC TRANSIT BUSES IN NEVADA

- CNG busses account for more than 70% of the Las Vegas fleet
- Reno has 21 electric transit buses while Vegas has none.
- Biodiesel transit buses make up more than 60% of the Reno fleet

Source: https://www.apta.com/research-technical-resources/transit-statistics/vehicle-database