New Mexico Legislative Finance Committee
Policy Spotlight

New Mexico's Public Light-Duty Electric Vehicle Charging Infrastructure

December 11, 2024

Legislative Finance Committee

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Summary

In November 2023, the New Mexico Environmental Improvement Board changed state motor vehicle emission standards, requiring 43 percent of new passenger vehicle sales to be zero-emission vehicles by 2026, increasing to 82 percent by 2032. Meeting these targets depends heavily on accessible public charging infrastructure.

New Mexico received pledges of $48 million in federal EV funds for light-duty charging infrastructure through 2026, primarily from National Electric Vehicle Infrastructure (NEVI) and American Rescue Plan Act dollars, of which $26.8 million has yet to be received. The state has effectively leveraged public-private partnerships, with 20 charging locations currently under construction through the NEVI program. While New Mexico's 326 charging stations fall below the national average of 1,300 per state, the infrastructure is well-balanced relative to current EV ownership, with a more favorable ratio of EVs to charging ports compared to similar states.

Current NMDOT contracts average $750 thousand per DC fast charging station, which falls within the average cost ranges in a sample of other states that have published their NEVI cost estimates.

Regional disparities in charging access are pronounced in New Mexico, with 73 percent of stations concentrated in urban areas while rural and tribal lands remain underserved. Less than 4 percent of stations are located on tribal lands despite comprising 13 percent of the state's land area. These disparities are meant to be addressed in subsequent phases of the NEVI deployment, but today they pose significant challenges to meeting statewide EV adoption targets, particularly in rural communities where charging access remains limited.

Key Recommendations

NMDOT should:

- Provide enhanced technical assistance for tribal governments and include tribal-specific charging corridor plans into the state's infrastructure strategy;
- Study peer states' successful strategies for funding EV charging infrastructure, including Colorado's rate structures, Oregon's rural subsidies, and Washington's mapping initiatives;
- Monitor the effects of El Paso Electric's proposed demand adjustment rider for possible scaling to other utilities; and
- Provide a report on EV charging station cost variations and performance metrics by July 2025 to better inform future investments.

Background

In November 2023, exercising its statutory authority to adopt air quality standards and regulations, the New Mexico Environmental Improvement Board (EIB) changed the state's motor vehicle emission standards through Section 20.2.91 NMAC and EIB 23-56(R). The new standards took effect in December 2023 and established the following requirements:

- Forty-three percent of new passenger cars and light-duty trucks sold in New Mexico to be zero-emission vehicles starting in 2026.
- Eighty-two percent of new passenger vehicles sold in New Mexico to be zero-emission vehicles by 2032.

According to the New Mexico Environment Department (NMED), the new rules are expected to save New Mexicans $300 million from vehicle lifetime fuel savings and lower maintenance costs by 2050. Transportation accounts for 14 percent of the state's greenhouse gas emissions, and adopting these rules is expected to reduce carbon dioxide emissions by 62 percent, nitrogen oxides by 43 percent, and particulate matter by 24 percent from the transportation sector. Reducing these particulates from the air is projected to save the state up to $62 million in healthcare costs by 2050.

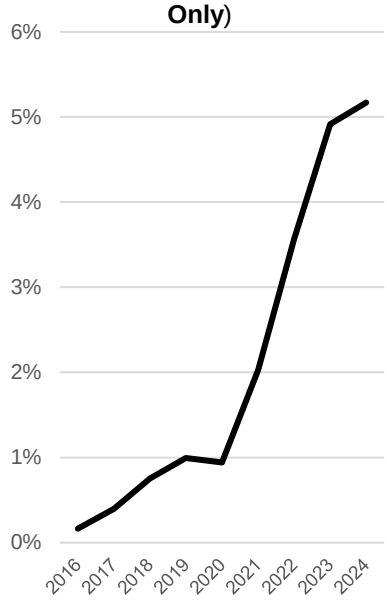
EVs are a small but growing portion of New Mexico's light-duty vehicles.

While EV registrations have grown significantly, from 0.2 percent of new vehicles in 2016 to 5.2 percent in early 2024, overall adoption remains low at less than 1 percent of all light-duty vehicles statewide.

New Mexico's EV market shows positive initial growth trends despite relatively low overall adoption rates. From 0.2 percent of new vehicle registrations in the first quarter of 2016, EVs have grown to represent 5.2 percent of new registrations by the first quarter of 2024. This increase of over 3200 percent shows a change in consumer preferences and market dynamics. According to Bloomberg analysts, crossing the 5 percent threshold is considered a milestone in technology adoption curves.

The proportion of EV ownership varies across different counties. Bernalillo County has the most EVs in the state, with 7,054 EVs, followed by Santa Fe County, which has 2,850 EVs. Los Alamos County has the highest EV share at 2.1 percent of its light-duty passenger vehicles, followed by Santa Fe County at 1.7 percent. Rural counties tend to have lower EV counts and adoption rates, with many having fewer than 100 EVs and adoption rates below 0.5 percent. The data reveals significant variation in EV adoption across the state, with adoption rates ranging from 2.1 percent in Los Alamos County to just 0.06 percent in Union County. The New Mexico Department of Transportation (NMDOT) leadership reported to LFC that the actual numbers are likely higher than

Chart 1: EV Share of Original Registrations in New Mexico (Most Recent Model Years Only)



Source: EValuateNM data from 7/17/24

official EV registration data, citing vehicles still registered out-of-state by New Mexico's many second-home owners and recent transplants into the state.

Table 1: New Mexico's Top Ten Counties for EV Share of Light-Duty Vehicles on the Road

County	EVs on the Road	LDVs on the Road	EV Share of LDVs on the Road
Bernalillo	7,054	520,015	1.3%
Santa Fe	2,850	166,357	1.7%
Sandoval	1,579	135,829	1.1%
Dona Ana	1,195	182,793	0.6%
Valencia	325	76,488	0.4%
Los Alamos	300	13,748	2.1%
Otero	240	65,505	0.4%
San Juan	189	77,832	0.2%
Curry	153	42,591	0.4%
Taos	147	12,444	1.2%
Statewide	**14,958**	**1,639,600**	**0.9%**

Source: EValuateNM data from 7/17/24

Most EVs in New Mexico are battery electric vehicles produced by Tesla, Chevrolet, and Nissan. Data from NMDOT and Atlas Public Policy (a policy research firm) shows that most EVs on the road (10.3 thousand EVs) are battery electric vehicles instead of plug-in hybrid electric vehicles (4,680 EVs), indicating a preference for fully electric vehicles. Tesla leads the market with 52 percent of all EVs, followed by Chevrolet at 10 percent and Nissan at 7 percent. The Tesla Model 3 is the most popular EV model, accounting for 23 percent of all EVs on the road.

Meeting the state's EV targets depends on charging infrastructure access.

Multiple national surveys indicate that consumers are often hesitant to buy EVs because of the lack of charging stations. In a national EV opinion survey from J.D. Power, a consumer research firm, 52 percent of polled consumers said their primary reason for not considering an EV was the lack of charging station availability. The Pew Research Center finds that Americans who live close to public chargers view EVs more positively—a major factor in the decision to purchase an EV. According to the US Department of Energy, as much as 90 percent of electric car charging is done overnight at home, but access to public infrastructure is tightly linked with Americans' opinions of electric vehicles themselves. New Mexico's automobile dealers also emphasize the need for improved public EV charging infrastructure, to boost demand before new requirements begin

in 2026, mandating that 43 percent of cars and light-duty trucks shipped to dealerships be zero-emission vehicles (ZEVs).

As of November 23, 2024, the US Department of Energy reports that New Mexico has 326 public EV charging stations with 793 ports. The majority are concentrated in the Albuquerque metropolitan area, which hosts about 36% of the state's total charging infrastructure. Santa Fe and surrounding areas account for an additional 23% of the stations. Las Cruces and southern New Mexico contribute approximately 14% of the state's stations. The remaining 27% of charging stations are distributed across rural and underserved areas, providing connectivity along U.S. 285, U.S. 70, and U.S. 380, as well as smaller towns.

New *Mexico's number of EV charging stations is below the national average and the average of similar states*. For purposes of comparison, this report uses an average of data from Nevada, Idaho, Oklahoma, and Utah--states that are geographically and demographically similar to New Mexico. New Mexico's charging infrastructure is still lower than this similar-states average of 516 stations and 1,617 ports.

Table 2: Existing Public EV Charging Infrastructure in New Mexico Compared to U.S. and Similar-state Averages, 2024

	U.S. national	U.S. states avg.	Similar-states avg.	NM
EV charging stations	66,309	1,300	516	326
Ports	181,614	3,561	1,617	793
Registered vehicles	4,863,100	96,262	44,975	15,200
Ratio vehicles:stations	73.34	75.05	87.16	46.6
Ratio vehicles:ports	26.78	27.03	27.81	19.16

Source: U.S. Department of Energy, Alternate Fuels Data Center. Vehicle counts include registered EVs and PHEVs only. EV charging stations include L2 and DCFC only, excluding L1. Similar-states average uses U.S. DOE data from NV, ID, OK, and UT.

New Mexico has a lower ratio of EVs to charging stations than the U.S. average. The ratio of EVs per charging stations in New Mexico (46.6 EVs) is more favorable than both the similar states average (87 EVs) and the national average (75). The state's ratio of EVs to charging ports (19) is also better than both the similar-states average (28) and the national average (27). This indicates that while New Mexico has fewer total charging options, its infrastructure is well-balanced relative to the current EV population, potentially offering less congestion at charging stations and better accessibility for EV owners.

New Mexico has a high ratio of DC Fast Chargers (DCFC) to Level 2 chargers compared to national and peer state averages. As of October 2024, the state's DCFC to Level 2 ratio stands at 0.76:1, higher than both the national average of 0.34:1 and the peer state average of 0.57:1 among a basket of similar states. Being a later-adopting EV state, New Mexico has been able to bypass early-adopter states' heavy investment in slower Level 2 chargers.

EV Charging Port Types

Level 1 Ports: The slowest charging option, using a standard 120V household outlet. Typically adds 3-5 miles of range per hour of charging. Suitable for overnight charging at home. *Public charging infrastructure does not typically include Level 1 Ports.*

Level 2 Ports: Medium-speed charging, using a 240V outlet (like those for large appliances). Can add 25-30 miles of range per hour. Common in homes, workplaces, and public charging stations.

Direct Current Fast Charging Ports: The fastest option, can charge most EVs to 80 percent in 30-60 minutes. Ideal for long-distance travel and quick top-ups. Usually found at public charging stations along highways.

Source: Wood et al. "The 2030 National Charging Network." National Renewable Energy Laboratory, 2024

Table 3: Ratio of public DC Fast Chargers to public L2 Chargers

	Ratio (DC Fast : Level 2)
NM	0.76 : 1
Similar States	0.57 : 1
US	0.34 : 1

Source: Alternative Fuels Data Center, U.S. Department of Energy, 10/11/2024

New Mexico's EV charging infrastructure is dominated by two companies: ChargePoint and Tesla. Current infrastructure operation shows significant consolidation among major providers. ChargePoint has the highest number of ports with 250 L2s and 80 DCFCs. Tesla's presence includes 130 DCFC ports and 70 Destination L2 ports. Tesla Destination chargers are typically located at hotels, restaurants, and other locations where vehicles might be parked for extended periods. In February 2024, Tesla began opening its charging network to non-Tesla electric vehicles by adopting the Combined Charging System (CCS) standard required under NEVI. For states receiving NEVI funding like New Mexico, Tesla's charging stations can now contribute to meeting federal requirements for universal accessibility. Many existing Tesla Superchargers will need updates to comply with NEVI standards.

Over $67 million in funding for public EV charging has been made available since FY19, the majority from one-time federal sources.

Since FY19, New Mexico has accessed over $67 million for public EV charging, primarily from one-time federal sources. Major funding streams include $38 million from NEVI, $10 million from ARPA, and contributions from Volkswagen settlement funds, severance tax bonds, and state appropriations. (See Appendix A.) Nearly $13.8 million in NEVI funding has been received, with $11.6 million allocated to projects. While these investments represent significant progress, their reliance on non-recurring and federal sources highlights the need for strategic planning to meet federal goals and enhance EV accessibility statewide.

New Mexico received allocations of $48 million in federal EV funds through 2026, primarily from National Electric Vehicle Infrastructure (NEVI) and American Rescue Plan Act dollars, of which $26.8 million has yet to be received. New Mexico received pledges of funding from the National Electric Vehicle Infrastructure (NEVI) program, which provides up to 80 percent of costs for eligible electric vehicle charging infrastructure projects as part of the Infrastructure Investment and Jobs Act and will provide funding through fiscal year 2026, with all NEVI funds required to be spent by September 30, 2026. This NEVI funding was in addition to $10 million the state dedicated to EV charging from its $1.067 billion in American Rescue Plan Act (ARPA) state fiscal recovery funds. NEVI formula funds provided $32.7 million between FY23 and FY26, via annual allocations of $8.2 million. The NEVI funding requires a 20 percent state or private match, which was achieved with legislative appropriations in FY24. The ARPA funding, providing $10 million in FY21 is fully encumbered and on track to be spent.

NM Public EV Charging Infrastructure Timeline

- FY19-FY21: $13.9 million in state and federal funds awarded for EVCS projects
- FY22-FY24: $32.7 million in NEVI formula funds and $10 million in ARPA funds pledged
- November 2023: NEVI Phase 1 funding opportunity opens, closed May 2023
- November 2024: NMDOT to finalize NEVI Phase 2 contracts to expand EVCS to 1,365 miles of US routes
- 2024-2026: Remaining NEVI and state funds support installations along US 285, 60, 70, and 380

Table 4: Federal Funds Received and Spent on Light-duty EV Charging Infrastructure in New Mexico as of Nov 2024

	Pledged	Received	Spent
NEVI	$38m	$13.8m	$11.6m
ARPA	$10m	$10m	$10m

Sources: NM HB2 Second Special Session 2021

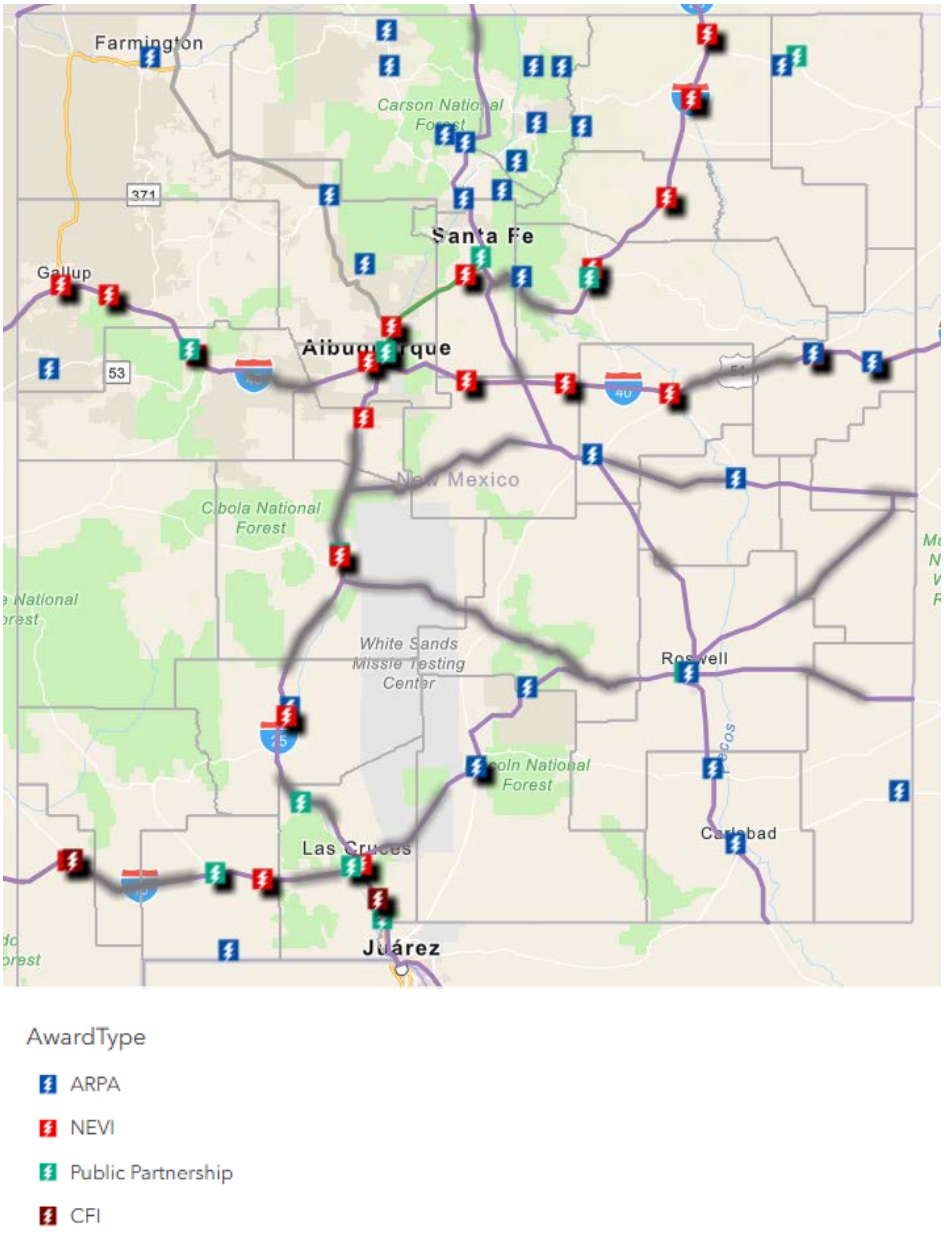
The following map shows where the funds are being deployed to build EV charging stations. NEVI is funding 20 locations in Phase 1, primarily along I-25 (including Raton, Truth or Consequences, and Socorro), I-40 (Grants, Moriarty, and Tucumcari), and I-10 (Deming and Lordsburg). ARPA is funding 25 stations focused on rural connectivity, including locations in Zuni, Tierra Amarilla, Chama, Carlsbad, and several tribal communities like Jemez Pueblo.

Additionally, Federal Charging and Fueling Infrastructure (CFI, see box on p. 7) funds have supported heavy-duty charging stations in 13 locations, including sites in Roswell and Des Moines. Most locations are being developed at existing commercial sites such as travel centers, retail locations, and hotels, ensuring access to amenities, as required by federal guidelines.

Federal Charging and Fueling Infrastructure (CFI) Program

In addition to the light-duty vehicle charging infrastructure covered in this report, the U.S. Department of Transportation's CFI program has allocated $63.898 million to New Mexico for heavy-duty vehicle charging infrastructure. The funds are allocated to charging stations in 13 locations, including Roswell, Des Moines, Vado, and Lordsburg, projected for completion by December 2026.

Figure 2: EVCS by funding source



Source: New Mexico Department of Transportation. "Electric Charging Station Buildout Planning." NMDOT Maps and Apps. Accessed November 6, 2024.

New Mexico's EV infrastructure plan is guided by federal NEVI mandates prioritizing installations along interstate highways before expanding to state and local roads.

As a condition of receiving the $38 million in federal NEVI funding, New Mexico, like all states, had to develop a plan describing how it intended to use its apportioned funds in accordance with NEVI rules. The state's plan follows federal mandates to build out charging stations along I-25, I-40, and I-10, with stations required every 50 miles or less and no more than one mile off the exit. NMDOT is implementing this through contracts with private entities which are then responsible for installation, operation, and maintenance. Each station must be a DC fast charger capable of charging 4 vehicles and meet strict technical standards, including 600kW service capacity, multiple 150kW chargers, 97 percent uptime, and 24/7 access and support. Further, such proposals must be responsive to federal guidelines for the federal Justice40 Initiative, (M-21-28 OMB Interim Guidance), which directs 40 percent of the overall benefits of investments in clean transit to flow to disadvantaged communities. Finally, stations built with NEVI funds must meet federal Davis Bacon wage requirements and, after July 2024, must meet the federal Build America, Buy America Act standards, meaning the chargers must be built in the United States. The use of NEVI funding within these parameters remains under the discretionary control of NMDOT. As a result, NMDOT has generally relied on vendors to apply for their preferred buildout locations along the highways.

The plan has overlapping oversight from multiple state agencies, with NMDOT leading implementation while coordinating with utilities and other departments. While electric cooperatives and investor-owned utilities play crucial roles in infrastructure development, they face challenges, including resource limitations, regulatory compliance, and the need to balance costs with consumer affordability.

While NEVI focuses primarily on interstate corridors, the state has leveraged other funding sources - including ARPA, and severance tax bonds for urban and suburban deployments - to expand charging infrastructure more broadly.

Under the state's NEVI plan, I-10 will see an increase from 0.012 to 0.024 chargers per mile, I-25 from 0.002 to 0.026 chargers per mile, and I-40 from 0.013 to 0.029 chargers per mile. The planned deployment would meet or exceed the requirement of having chargers every 50 miles on all three interstates:

- I-10 would have a charger approximately every 42 miles
- I-25 would have a charger approximately every 39 miles
- I-40 would have a charger approximately every 35 miles

The plan suggests that each charging site could cost between $75 thousand and $1 million, depending on needed site preparation. This wide range in potential costs reflects the variability in site preparation needs, which can include factors such as electrical infrastructure upgrades, site grading or paving, installation of safety features like lighting or security cameras, accessibility requirements, and others. (See discussion of costs, p. 14.)

The plan shifts its attention to community and corridor locations off the Interstates in years 3-5, including in rural and underserved areas. Phase 2 expansion will add coverage to 1,365 miles of federal highways on US Routes 285, 60, 70, and 380. While general locations have been identified, specific site-selection decisions are being made in partnership with the private sector during the procurement process. The plan states that this approach allows for the optimization of locations based on factors such as grid capacity, community needs, and economic feasibility.

State agencies will not own, operate, or maintain most of New Mexico's public EV charging infrastructure. NMDOT is contracting with private sector entities through a competitive procurement process. Partners are responsible for the acquisition, installation, operation, and maintenance of the charging infrastructure. NMDOT issues requests for proposals (RFPs) from companies interested in building EV charging stations. Selected vendors will work with NMDOT to identify installation sites and coordinate with relevant stakeholders. Contracts will include five-year operations and maintenance requirements and provisions for long-term ownership. NMDOT may provide additional support for locations in disadvantaged communities or to address network gaps. The agency is collaborating with the State Purchasing Division to develop competitive procurement processes that comply with regulations and maximize NEVI funds, aiming to standardize EV charging stations and user experiences statewide.

Through Phase 1 of NEVI implementation, NMDOT has awarded $11.6 million to six contractors for 20 interstate charging locations, with site costs ranging from $553 thousand to $1.1 million. According to the 2024 required annual state report to NEVI, these stations average $750,000 per station, significantly above industry standards of $40,000-$175,000 per station. Each site provides four Level 3 DC fast charging ports, averaging $233,000-$239,000 per port compared to the national average of $140,000 reported by ICCT. Key contractors include Tesla (6 locations), RedE Charging (5 locations), and Francis Energy (4 locations), with installations planned along I-25 (8 sites), I-40 (8 sites), and I-10 (4 sites). While stricter NEVI requirements, rural locations, and safety features contribute to higher costs, this significant price difference warrants attention.

NMDOT is currently evaluating proposals for Phase 2, which will expand coverage to U.S. Routes 285, 60, 70, and 380. While NMDOT tracks basic cost data, there is no systematic reporting of cost variations or regular analysis of cost drivers to inform future investments and cost containment strategies.

Contractors were required to provide at least 20 percent in non-federal matching funds to encourage sustainable operations and private investment. In awarding the first round of NEVI funds, the department's scoring system allocated 200 possible points across four categories: administrative capability, management approach, technical expertise, and financial capacity. Applications must have scored at least 125 points to be

Table 5: EVCS currently under construction in New Mexico (September 2024)

Total Award Amount	$11.6 million
Number of Locations	20 stations
Average Cost per Location	$750,000
Range of Costs	$552,983 - $1,065,965
Contractors (locations)	Tesla (7) RedE (5) Francis Energy (4) Pilot (2) SkyChargers (1) EV Gateway (1)
Interstate Distribution	I-25: 8 stations I-40: 8 stations I-10: 4 stations

Source: NMDOT NEVI Plan Update, September 2024

considered for an award. The department also considered factors such as geography, cultural and linguistic diversity of communities, and types of activities contemplated. For ongoing projects that were less than 75 percent complete, NMDOT applied a scoring formula that deducts points based on the remaining contract balance amount to encourage timely completion.

Various public and private entities have roles in building and operating the state’s EV infrastructure.

NMDOT has the statutory authority to plan, develop, and maintain the state's transportation infrastructure. (NMSA 1978, Section 67-3-2) This includes overseeing development of electric vehicle charging stations along state highways and interstates.

The New Mexico Environment Department (NMED) has a role in relation to air quality and emissions standards. Under NMSA 1978, Section 74-2-5, NMED adopts the regulations to prevent or abate air pollution. This includes the adoption of Advanced Clean Vehicles Rules in November 2023, which set standards for zero-emission vehicles in the state.

The New Mexico Public Regulation Commission (PRC), under NMSA 1978, Section 62-3-1, has oversight of electric utilities, which provide the power infrastructure for EV charging.

The Energy, Minerals and Natural Resources Department (EMNRD), under NMSA 1978, Section 9-5A-3, is tasked with developing and implementing the state's energy policy. This includes promoting the use of alternative fuels and supporting the infrastructure necessary for their adoption.

NMDOT typically takes the lead on infrastructure deployment along highways, while working closely with NMED on environmental considerations, PRC on utility-related matters, and EMNRD on broader energy policy alignment. Administrative codes, such as NMAC Title 20, Chapter 2, Part 91, which implements the Clean Car Rule, provide more detailed regulations on how these agencies carry out their statutory responsibilities in relation to EV charging.

New Mexico's fifteen rural electric cooperatives face significant challenges in supporting EV charging infrastructure deployment, though several are progressing despite the constraints. These cooperatives, serving sparsely populated areas, struggle with fundamental financial limitations due to their small customer bases and high infrastructure costs. The Department of Energy has identified that many rural cooperative territories lack adequate three-phase power distribution systems necessary for DC fast charging stations, requiring substantial upgrades to support EVCS deployment.

Several cooperatives are actively working to overcome these challenges. The recent NMDOT NEVI plan update highlights how Central New Mexico Electric and Jemez Mountains Electric are collaborating on corridor development along US 550. However, infrastructure limitations persist—Socorro Electric's recent regulatory filings indicate significant substation upgrade costs exceeding $2 million per site. Supply chain issues compound these challenges, with critical components like transformers facing extended delivery delays.

Despite these obstacles, some cooperatives are making notable progress. Kit Carson Electric, serving the Taos region, has successfully deployed several Level 2 chargers. Central Valley Electric has secured federal funding for DC fast charging stations through recent NMDOT grant programs.

Investor-owned utilities (IOUs), such as the Public Service Company of New Mexico (PNM), face both opportunities and challenges in developing New Mexico's EV charging infrastructure, from upgrading power systems and sharing planning data to managing costs and regulatory requirements. They are working to upgrade existing electrical infrastructure to handle increased loads from EV charging stations, while also providing critical data on grid capacity and usage patterns to help NMDOT plan efficient and reliable charging networks. Additionally, utilities and NMDOT are partnering on public outreach efforts to educate communities about EV benefits and new charging infrastructure availability. However, utilities face significant challenges in this work. They must continuously adapt to evolving regulations around emissions and renewable energy integration, while making substantial investments to modernize aging infrastructure for new technologies. Perhaps most challenging is the need to balance infrastructure development costs with maintaining affordable electricity rates for consumers.

IOUs will contribute to the installation of a modest number of publicly accessible EV charging ports across the state by 2026. Since 2021, by law the IOUs in New Mexico have been required to file applications to expand transportation electrification. (Section 62-8-12 NMSA 1978) Their transportation electrification plans include incentives to facilitate the installation of EV charging infrastructure. The most recent plans show the IOUs investing in rebates and make-ready infrastructure support for both DC Fast Charging (DCFC) and Level 2 charging stations. The plans vary in scope and approach:

- Public Service Company of New Mexico (PNM) offers rebates to support the installation of up to 195 DCFC stations and 305 publicly-accessible Level 2 ports across the two plans reviewed by LFC (2022-2023 and 2024-2026). To support businesses installing DCFCs, PNM's 2022-2023 plan proposed a total budget of $1,750,000 and a cap of $25,000 per DCFC.
- Xcel Energy's (formerly known as Southwestern Public Service Company, SPS) 2021-2023 plan proposed to own and operate 8

DCFC stations directly, while also offering make-ready infrastructure programs to support both DCFC and Level 2 charging installations accessible to the public. Xcel's plan has a total budget of $3.168 million, including an unknown amount of funding for public EV charging.

- El Paso Electric's (EPE) 2024-2026 plan includes an EV Charging Equipment Rebate Program and an EV Charging Installation Rebate Program for commercial entities to develop public charging stations. These programs offer rebates covering 50 percent of equipment and installation costs, with up to 70 percent reimbursement for projects in underserved communities. EPE’s Take-Charge NM Program offers a charging-as-a-service model that includes the installation and ongoing support of charging equipment for public locations, reducing the burden on businesses and municipalities to manage infrastructure projects independently.

New Mexico's per-station buildout costs appear to be consistent with other states that have published NEVI cost estimates.

NEVI-compliant infrastructure costs more than non-NEVI charging stations due to several federal requirements, including minimum 600kW power capacity, requirements to procure American-made equipment, requirements for multiple 150kW chargers, a 97 percent uptime guarantee, enhanced safety features, and others. New Mexico's NEVI program costs have averaged $750,000 per station for four ports.

Direct state-to-state cost comparisons are challenging due to variations in site conditions, utility infrastructure requirements, and how costs are calculated and reported. Further, many states have yet to publish even estimated costs for NEVI buildout. The below comparison is based on a sample of estimates from five state departments of transportation in similar states that have published NEVI cost information. These estimates may not match with final costs the states will incur.

- **Wyoming** budgets $1 million per station, equating to $250,000 per port.
- **Colorado**'s costs range from $375,000 to $870,000 per station, depending on site specifics, with many falling between $498,000 and $565,000.
- **Kansas** estimates $400,000 to $900,000 per station, with costs varying by infrastructure needs.
- **Oklahoma** provides more cost-efficient estimates of $300,000 to $600,000 per station, the lowest among those reviewed.
- **Mississippi** demonstrates the broadest range, from $500,000 to $1.5 million per station, reflecting variable site requirements.

Nationally, ATLAS data indicates the average federal funding share for EV charging stations is 71 percent, with an average total station cost of $950,000 and per-port costs of $199,000. New Mexico's $750,000 per site is based on a federally mandated 80 percent cost share, reducing the financial burden on state and private partners. Standardized designs, bulk procurement strategies, and enhanced coordination between utilities and contractors have helped other states optimize their NEVI deployment costs. Finalized cost data following construction may vary and will be critical for refining future investments.

Recommendations

NMDOT should:

- Provide a report on EV charging station cost variations and performance metrics by July 2025 to better inform future investments.

Regional Disparities in EV Charging Access Could Impede 2026 Zero-Emission Vehicle Goals

New Mexico's EV charging infrastructure shows a significant urban-rural divide, with 73 percent of stations concentrated in metropolitan areas while rural and tribal areas remain underserved. Only 4 percent of charging stations are on tribal lands, despite these areas comprising 13 percent of state territory. This disparity threatens the state's 2026 goal of 43 percent zero-emission vehicle sales, as rural areas face multiple challenges including limited infrastructure, complex permitting, and high operational costs due to low utilization. While NMDOT plans to address these gaps through rural route expansion and federal equity initiatives, the state's fragmented utility landscape of multiple cooperatives and utilities complicates coordinated infrastructure development. Other states' solutions, such as operational subsidies and unified utility approaches, could provide potential models for improvement.

While New Mexico has successfully built out charging infrastructure in urban corridors, significant gaps persist in rural and tribal areas. The entire rural portion of the state is served by 27 percent of stations, compared to 73 percent concentrated in the Albuquerque, Santa Fe, and Las Cruces metropolitan regions. Looking at U.S. Department of Energy data on station locations, the Albuquerque metro area hosts the largest concentration, with about 36 percent (104 stations) of the state's charging stations. Santa Fe and surrounding areas account for 23 percent (67 stations), while Las Cruces and southern New Mexico have approximately 14 percent (41 stations). The remaining 27 percent (78 stations) are scattered across other parts of the state. This concentration of charging infrastructure in metropolitan areas creates accessibility challenges for rural communities and long-distance travelers. This imbalance reflects both vehicle purchasing trends and the availability of EV charging stations, with implications for statewide EV adoption goals and transportation equity.

NMDOT's infrastructure plan acknowledges these disparities and aims to address them: after completing the interstate corridor buildout in year one and year two, the plan shifts focus to community and corridor locations off the interstates in years three through five including rural and underserved areas. Phase 2 will expand coverage to 1,365 miles of federal highways on U.S. Routes 285, 60, 70, and 380. Phase 3 activities are intended to fill in gaps to cover the NEVI 50-mile requirement.

State officials express concerns regarding the 'utilization rate' challenge in EV charging infrastructure, which may further impede EV charging station rollout in rural and tribal areas. This challenge arises when low EV usage during early adoption phases—especially in

rural areas—results in high per-charge costs. These costs are inflated because fixed infrastructure and operational expenses are spread across fewer charging sessions. This creates a detrimental cycle: high costs deter adoption, which keeps utilization rates low, perpetuating further high costs. To address this challenge, other U.S. states have implemented several promising strategies:

- **Baseline Infrastructure and Funding Mechanisms:** Colorado's SB19-077 (2019) established a funding framework that also allows utilities to include their EV infrastructure investments in their rate structures. California's AB841 (2020) required utilities to fully cover the costs of making infrastructure ready for charging stations, reducing installation expenses in rural areas.

- **Innovative Rate Structures:** Colorado's SB19-077 (2019) introduced comprehensive, statewide rate structures designed to encourage EV adoption (including five-year demand charge holidays, special rates for commercial charging, and reduced off-peak rates). In New Mexico, the investor-owned utility El Paso Electric is adopting a Demand Adjustment Rider, which limits billing demand when station utilization falls below 15 percent load factor. According to EPE's 2024-2026 Transportation Electrification Plan, this change will reduce the cost per kWh from $0.37 to $0.21 for a typical public charging station.

- **Rural Deployment Strategies:** Recognizing that federal capital funding alone is unlikely to ensure coverage in remote and underserved areas, Oregon's SB1558 (2022) introduced operational subsidies specifically for rural EVCS. Similarly, Washington's HB1287 (2021) established a comprehensive mapping program to identify rural charging gaps and foster public-private partnerships. NMDOT has taken steps in this direction as well, driving coverage to rural areas through its RFP process, by awarding more points for lower Annual Average Daily Traffic (AADT). The strategy avoids placing infrastructure in already high-utilization areas along major interstates or near existing EVCSs.

- **Utility Engagement Models:** State planning documents acknowledge that New Mexico's fragmented utility landscape complicates the deployment of EV infrastructure. The state has both investor-owned utilities (IOUs) and rural cooperatives, each operating under different rules and constraints. While IOUs must file Technical Energy Plans (TEPs), they have limited flexibility in adjusting rates to recover infrastructure costs. Rural cooperatives face even greater challenges, as they lack clear mechanisms for cost recovery, reducing their incentive to participate in EV infrastructure development. This fragmented system makes it more difficult to build a coordinated charging network compared to states with more unified utility systems. In

California, AB841 (2020) required a unified approach from all IOUs to participate in make-ready infrastructure programs. Washington's legislation (2021) mandated that utilities develop comprehensive plans to accommodate the increased electricity demand from EVs, including specific strategies for rural service territories.

- **Operational Sustainability:** New Mexico's focus has primarily been on capital deployment through federal funding and state appropriations, with less emphasis to date on ongoing operational viability. Station operators will bear the brunt of operational costs and risks, particularly in rural areas with low utilization rates. Oregon's program (2022) provides operational subsidies to maintain rural stations that would otherwise be economically unfeasible. Similarly, Colorado's rate structures have helped reduce operational costs, leading to significant increases in average utilization rates for rural stations under their program.

New Mexico's tribal lands face significant disparities in electric vehicle charging infrastructure, highlighting a gap in the state's transition to electric vehicles. According to the Department of Energy's Alternative Fuels Data Center, only about 12 of New Mexico's 326 charging stations are located on tribal lands or within one mile of tribal boundaries**,** representing less than 4 percent of the state's total charging infrastructure. While tribal lands comprise approximately 13 percent of New Mexico's total land area, an estimated 156,823 people live on tribal lands in New Mexico according to the 2020 Census. This represents about 7.5 percent of the state's population, yet these areas have disproportionately limited access to charging infrastructure.

The existing tribal area charging infrastructure shows clear patterns of limitation and concentration. Most installations are Level 2 chargers, with only three DC Fast Charging stations on tribal lands, particularly casinos and resorts. As acknowledged in NMDOT's EV Infrastructure Deployment Plan Update 2023, this distribution creates significant coverage gaps, particularly in the Navajo Nation, most pueblos along the Rio Grande corridor, and the Jicarilla Apache Nation.

Several structural challenges impede the development of tribal charging infrastructure. Many tribal areas lack robust electrical infrastructure, making installation costs prohibitive for smaller communities. The complex land status of tribal territories often complicates permitting processes, with multiple jurisdictions involved in approvals and right-of-way issues frequently delaying installation**.** Recent federal grid resilience funding allocations demonstrate the scale of infrastructure needs - for example, the Navajo Nation received over $3.9 million in combined FY22-24 grid resilience funding, while other New Mexico tribes like the Jicarilla Apache Nation and Mescalero Apache Tribe received smaller but significant allocations for grid improvements. Improvements to tribal electrical infrastructure should help address one of the fundamental barriers to EVCS deployment - inadequate grid capacity.

Further recent policy developments offer new opportunities for improving tribal charging infrastructure. The federal Justice40 Initiative, as implemented through the National Electric Vehicle Infrastructure (NEVI) program, mandates that 40 percent of benefits flow to disadvantaged communities, including tribal areas in equity considerations**.** This commitment was recently reinforced by the Department of Energy's announcement of nearly $474 million in new grid resilience funding, which emphasizes supporting "remote and rural communities" in accessing reliable power infrastructure**.** New Mexico's NEVI plan includes specific tribal consultation requirements, acknowledging the need for targeted support in these areas. Additionally, recent Charging and Fueling Infrastructure grants include tribal set-asides, and some tribes are eligible for direct federal funding. The state’s required planning update for NEVI funding of September 2024 states that while disadvantaged communities have been a priority in identifying locations along AFCs in Phase 1 and US Routes and State Byways in Phase 2, a priority for Phase 3 will be ensuring that the state has met Justice40 requirements and that the state’s charging network equitably serves disadvantaged communities.

Recommendations

NMDOT should:

- Provide enhanced technical assistance for tribal governments and include tribal-specific charging corridor plans into the state's infrastructure strategy;
- Study peer states' successful strategies for funding EV charging infrastructure, including Colorado's rate structures, Oregon's rural subsidies, and Washington's mapping initiatives; and
- Monitor the effects of El Paso Electric's proposed Demand Adjustment Rider for possible scaling to other utilities.

Appendix A: EV Charging Infrastructure Funding Sources

	Source	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	Status
State	GF	$50.0								Unspent, reverted
State	GF						$15,000.0			Unspent as of 9.20.24
State	STB			$1,230.0						Expended
Federal	ARPA			$10,000.0						Fully encumbered, on track to be spent
Federal	NEVI				$5,681.0	$8,176.0	$8,176.0	$8,176.0	$8,176.0	Tranches received are on track to be expended
State	STB				$387.0					Expended
Federal	VW Stlmt		$2,697.0							Expended
State totals		$50.0		$1,230.0	$387.0		$15,000.0			**$16,667.0**
Federal totals			$2,697.0	$10,000.0	$5,681.0	$8,176.0	$8,176.0	$8,176.0	$8,176.0	**$51,082.0**
Combined totals		$50.0	$2,697.0	$11,230.0	$6,068.0	$8,176.0	$23,176.0	$8,176.0	$8,176.0	**$67,749.0**

Sources: LFC Files

Appendix B: Public EV Charging Ports by County as of November 2024

County	Level2	DCFC
Bernalillo	197	64
Chaves	6	8
Cibola		23
Colfax	8	3
Curry	11	2
De Baca		4
Doña Ana	50	20
Eddy	3	8
Guadalupe		14
Hidalgo	4	4
Lea		4
Lincoln	7	4
Luna		21
McKinley		14
Mora		5
Otero	6	15
Quay	3	18
Rio Arriba	5	13
San Juan	15	6
San Miguel	2	10
Sandoval	15	2
Santa Fe	84	26
Sierra	3	12
Socorro	2	10
Taos	30	11
Torrance	2	4
Union		12
Valencia	1	1
Grand Total	454	338

Source: U.S. Department of Energy