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Rio Grande Chapter

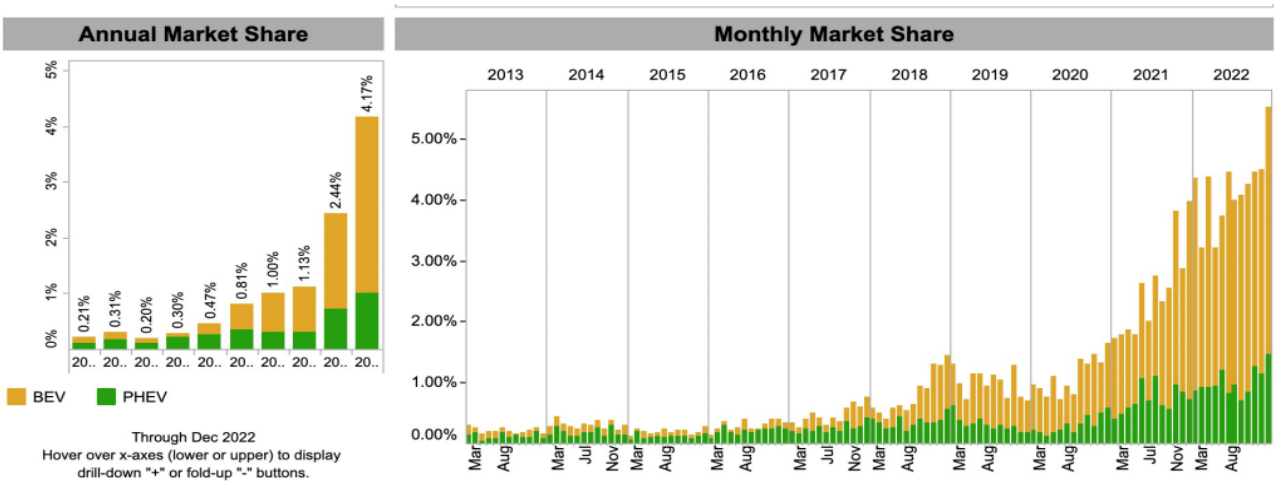
New Mexico and West Texas

Electric Vehicles: Questions and Answers
Charging, Savings, Health & Climate Benefits

Remember Kodak? The company didn't get with the digital photograph program and went bankrupt. People were slow to adopt microwaves and then suddenly in the 80s everyone had one. Cellphones were a luxury and now they're even more necessary than a computer.

The question for New Mexico is not *whether* there will come a day when every new vehicle offered for sale in our state is an EV. The EV transition is happening worldwide. Analysts predict that about 60% of new passenger vehicles sold in the U.S. in 2030 will be EVs–even without policies like the Clean Cars and Clean Trucks rule. Many automakers have committed to completely phasing out gas vehicles. Volvo will be all electric by 2030, and GM plans to be all electric by 2035.

New Mexicans are already embracing the EV future. We have seen exponential growth in EV sales in recent years, with EVs reaching 5.5% of sales in December 2022.



2023 is already the year with the highest EV sales ever in New Mexico, with about 4,000 new EVs purchased already.
The question for New Mexico is whether we are a leader or a laggard. If we lead the way, we can improve air quality and public health outcomes sooner, and reap the economic benefits sooner.

Let's sum up the benefits of driving an electric vehicle: (350NM)

- Clean — zero tailpipe pollution, with verifiable major major health benefits, especially to communities near transportation routes, especially to communities near transportation routes
- 60% less climate pollution than a gas car and increasing with renewables (EPA)
- 90% of EV owners likely to buy again (2023 poll)
- $7,500 federal tax credit available on many popular EVs
- No more paying for gas! Or stops at the gas station. Savings of up to $17,000 over the lifetime of the vehicle due to reduced fuel and maintenance costs, with New Mexicans who log more miles each year enjoying the greatest savings
- Recharge at home, overnight, and enjoy lower electric rates for your whole home
- Safer: 10 times less likely to cause a vehicle fire
- High performance and quiet
- Growing nationwide fast-charging network

Now let's answer your EV questions — from charging to batteries, from Clean Cars and Trucks standards to the many rebates available for chargers and vehicles.

What's the latest with charging infrastructure? Are we putting the cart before the horse?

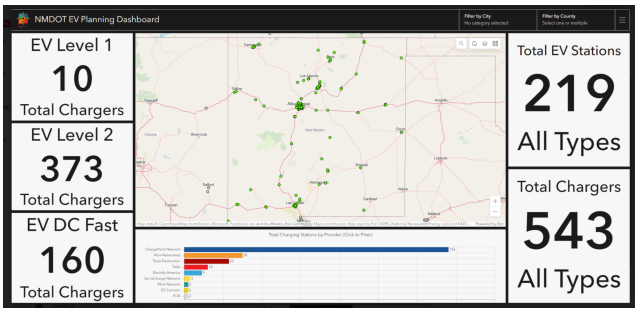
The Legislature had the wisdom to put the horse first! **In 2019, the New Mexico Legislature passed the EV Infrastructure Act**, instructing utilities to support charging stations in homes and multi-unit dwellings as well as public stations around the state, with significant incentives: up to $2,500, depending on income, for PNM ratepayers to install high-speed chargers; $5000 per Level 2 port for multi-unit housing in low- to moderate-income communities and up to $50,000 for commercial and public charging stations around the state. For many New Mexicans, that would cover the entire cost of a charger and installation. The Public Regulation Commission accepted utilities' first plans in late 2021 and they are now in place. New utility plans are being considered by the PRC for potential approval in early 2024.

According to Jerry Valdez, executive director of the New Mexico Department of Transportation, there are 90 Level 3 EV chargers currently under construction in the state. Construction is occurring at 40 different locations, including in rural areas like Rito, Questa, Ojo Caliente, Pecos, Taos, and Española. These projects are being supported by $10 million from the American Rescue Plan Act, the 2021 COVID-19 relief legislation. An additional $38 million has been made available under the 2021 Bipartisan Infrastructure Investment and Jobs Act, and the 2022 Inflation Reduction Act to expand EV charging infrastructure in New Mexico. This is all in addition to the New Mexico's investor-owned utilities who are investing tens of millions of dollars to expand EV charging infrastructure, as part of their Transportation Electrification Plans mentioned above.

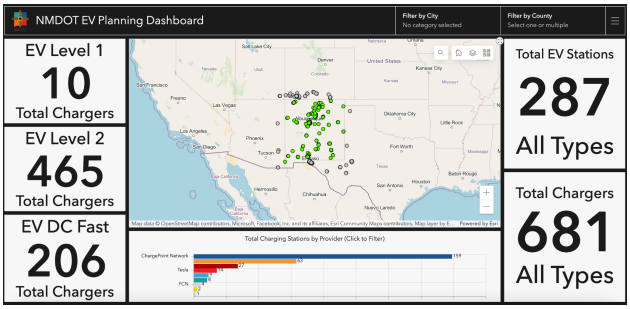
New Mexico was the first state to submit a plan to use [$38 million in National Electric Vehicle Infrastructure (NEVI)] funding to install charging stations around the state. The first phase is ensuring charging stations every 50 miles of interstate highway in New Mexico (this prioritization was required in the federal grant). The second phase focuses on tribal and rural roads. We are not all the way there yet, but it's happening very quickly because New Mexico legislators and Gov. Lujan Grisham had the foresight to plan.

[This NMDOT map] that tracks chargers around the state shows installations increasing by the minute. As of Nov. 4, there are 291 total EV charging station **locations** and 705 public charging stations (plugs), of which 230 are DC fast chargers, 465 Level 2 and 10 Level 1.

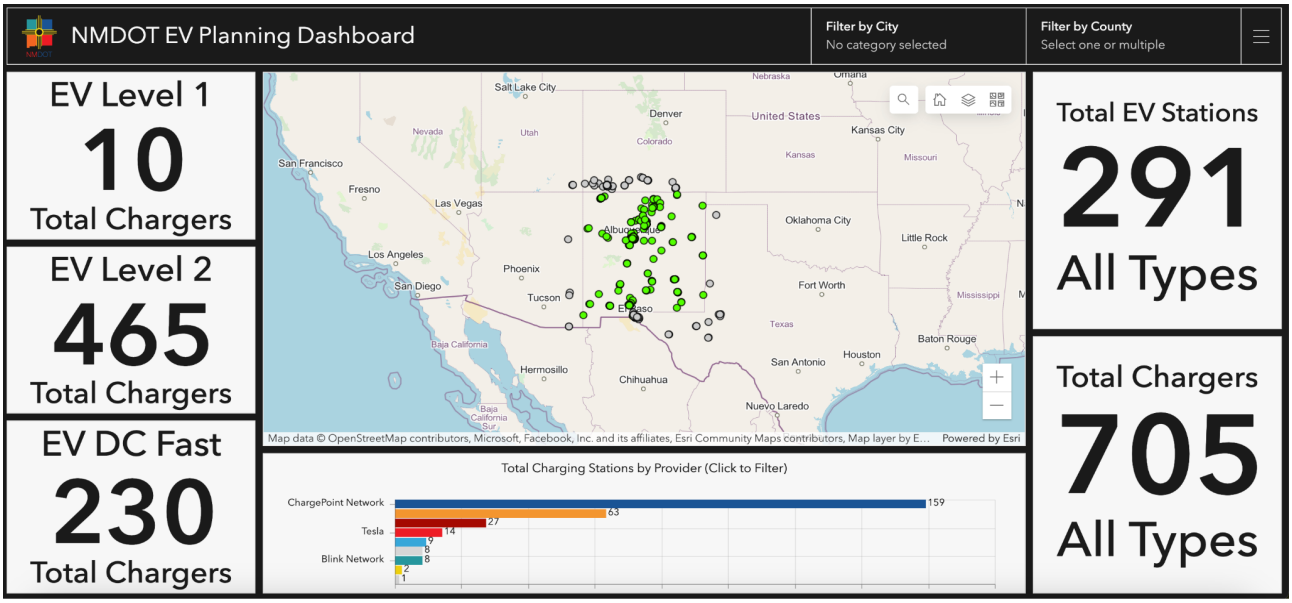
September 30, 2023



November 2, 2023



November 4, 2023



What credits are available for residential chargers?

About 80% of charging happens at home. And you can charge with a regular outlet. But to upgrade your charger there are several incentives.

- PNM charger and installation rebates and special discounted rates: [ev.pnm.com]
- EPE provides rebates and special rates: [www.epelectric.com/ev]
- Southwestern Public Service [rebates and rate incentives]
- New Mexico [Sustainable Buildings Tax Credits]

- The 2023 EV tax credit proposed an additional $300 for charger upgrades.

How much do home chargers cost?
Home chargers cost around $350, sometimes even less. Installation costs vary depending on your home electrical (it's like the plug for your laundry drier) and charger location. This year's tax credit would have given $300 towards a charger. Vehicles come with a 120-volt plug-in set. Most EVs can be plugged into the wall; it just takes longer to charge. All three investor-owned utilities and some co-ops offer special rates for EV owners for the whole home of around 3 cents per KwH.

The best non-Tesla L2 charger recommended by Wirecutter is $350 at Amazon (Grizzl-E). There are several others on Amazon under $300, including the cheapest at $134 from EVJUICION. Those are hardware costs only. Bob Vila says "The (parts and labor) cost to install an EV charger at home ranges from $528 to $1,317, with a national average cost of $923."

An EV owner with a short commute (e.g., 40 miles a day) can maintain a full charge by simply plugging their EV into a standard 120-volt outlet — i.e., with no additional charge. EV owners who travel longer distances typically use a Level 2 charger, which can be plugged into a 240-volt outlet, the same type of outlet used by heavy household appliances like washing machines and air conditioners. While certain homes may require electrical panel upgrades, there are generous federal tax credits and utility incentives to help. For example, PNM offers a rebate of up to $2,500 to install Level 2 chargers (see above).

What will we do about electric load? Can the grid support everyone adopting EVs?
Many states and countries are embracing electric vehicles far more quickly than we have. These countries have not had trouble providing reliable electricity. For example, in 2022, 80% of new car sales in Norway were electric. According to the New York Times, air is cleaner, the streets are quieter, the electric grid remains resilient, and employment remains strong.

New Mexico won't reach that level of new EV sales until the mid-2030s, giving us plenty of time to plan to integrate EVs into our grid. Experience from other states suggests that widespread EV adoption can actually *lower* electric rates for everyone and increase reliability. The state and utilities are already planning for the EV future, with the state's investor-owned utilities offering incentives for EV users who charge at non-peak times (i.e., at night).

EVs can contribute to load management. SPS, for example, offers a $185 incentive for signing up for time-of-use rates to charge your EV at non-peak times. PNM and EPE offer a much-reduced rate of about 3 cents per KwH for usage between 10 p.m. and 5 a.m. EVs are actually putting downward pressure on rates in California by averaging out demand over the course of the day, allowing utilities to recover more revenue without any new generation or transmission costs. Vehicle-to-grid charging — meaning your battery could contribute back to the grid — is also expected to mature alongside EV adoption, so EVs could be even more beneficial to load management.

Modeling by PNNL, Pacific NW National Labs, shows the US power grid can handle 24 million EVs through 2028. There are ~4 million plug-in EV's in the US as of Sept 2023. If EVs also charge at times when electricity is cheaper, the US power grid could deal with 65 million EVs.

What about the power-plant emissions?

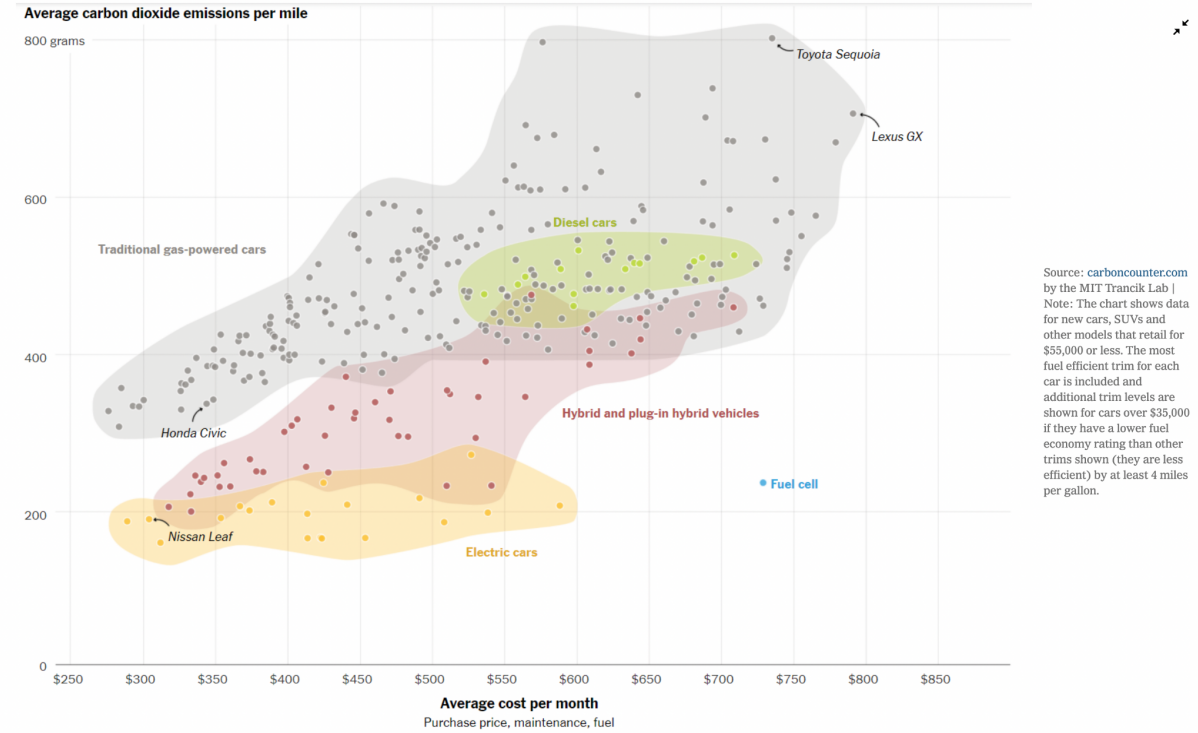
Because EVs are far more energy efficient than conventional vehicles, they generally have lower lifecycle emissions than conventional vehicles even if the grid is heavily reliant on fossil fuels. In New Mexico, the emission benefits are even more pronounced. Because NM has one of the strongest clean-energy rules, PNM's emissions are down 60% since 2005. SPS is down 55% since 2005. The electric sector is getting a lot cleaner, a lot faster. Gas isn't getting any cleaner.

Even after accounting for the power plants currently on the grid, driving an EV in New Mexico emits four times less climate pollution per mile than a gasoline vehicle.

EVs also reduce local air pollution, including fine particulate matter, which causes respiratory and cardiovascular problems, premature death, and lung cancer, and nitrogen oxide, which contributes to ozone pollution that attacks the lungs. The Clean Cars and Trucks standards will prevent 158 premature deaths and more than 76,000 cases of respiratory illnesses by 2050, just by reducing particulate matter. There will be additional health benefits from reduced exposure to ozone and diesel particulate matter.

Do EVs really make a difference on climate change?

Yes. Considering all of the emissions over the lifecycle of a vehicle, EVs are unquestionably better for the climate than conventional vehicles.



Passenger cars and trucks are the single biggest source of climate pollution in the US and the second largest source in NM. Studies by both the American Lung Association and ERM found that Clean Cars standards are among the most significant climate actions New Mexico can take to reduce that impact–the impact of the rules will be equivalent to eliminating *an entire year's* worth of climate pollution from the entire state. The Intergovernmental Panel on Climate Change tells us we must reduce our climate pollution by 50% by 2030 in order to prevent climate catastrophes that would cause widespread misery. We have to stop finding reasons not to take action, and focus instead on finding ways to make climate solutions happen.

Incentives and policies across states make a bigger difference than just the literal difference between EV and gas emissions. Boosting incentives for EVs will foster greater production growth and demand. States' renewable portfolio standards boosted research and development that brought prices down by more than 75%, making it much easier to replace dangerous fossil energy with renewables now. Incentivizing the market for something good that benefits the public has a cascading effect.

EV Tax Credit — 2023 bill for reference

What would the bill have provided?
$10 million annually for EV credits and $1 million annually for chargers for 5 years. The tax credits would have been first-come, first-serve until the cap ran out. If the state exceeds the cap one year, those waiting get put at the top of the list at the beginning of the next year. You would have had a year to claim the credit. There was a $2500 credit for all earners, and $4,000 for earners within 200% of the federal poverty rate for cars prices lower than $55,000. Plus a $300 credit for a charger upgrade.

Would this credit have helped people with a low tax bill?
If your tax bill were lower than the credit, the tax would have been refundable, meaning you get the excess back in cash even if you don't owe taxes. The credit is also transferable, so cash on the hood at the dealer. That's designed to help lower-income buyers and make it more effective at encouraging people to choose an EV.

How many people would qualify for the tax credits/rebates?
Prosperity Works estimates that at least 50% of New Mexico families are at 200% of the poverty level or less. About half of New Mexicans are middle income.
$10,000,000/ average of $3,000 credit = 3,333 people
There are currently 11,800 EVs registered in NM → 3,333 more per year means a lot of growth. A larger credit would be only a small budget impact but make a huge difference to allowing many people to access cars that are much more affordable to operate.

This credit also would also cover plug-in hybrids, which go 30 to 50 miles on battery before switching to gas. Most people drive less than 30 miles a day, so plug-in hybrid drivers rarely have to buy gas, but for longer trips, plug-in hybrids provide a large chunk of your mileage without needing to buy expensive gas.

Low-income people can't afford new cars. Is this a tax credit for the rich?
No! This credit makes the considerable savings of EVs accessible to more New Mexicans.

The average price of a used car in New Mexico is $34,000. After federal and state credits, a Nissan Leaf would be around $15,000. Financing that would result in a monthly payment of less than $300. Compare that to even a $10,000 used car with a monthly payment of less than $200. Given average estimated New Mexico fuel savings of around $3,000 a year, most families will save $250 a month with an EV, lowering their overall monthly costs significantly in comparison to the used gas car. And maintenance costs of a new EV would of course be far lower than a used gas car.

EVs provide thousands of dollars in fuel and maintenance savings yearly; **NOT passing a state credit is what would exclude middle- and lower-income buyers from those benefits.**

Does the state and local credit make the car affordable?
The federal credit is up to $7,500 (has to be a US-made car). A state credit, if signed, would have provided an additional $2,500 or $4,000, depending on income. The credit only applies to cars that cost $55,000 or less, so higher-end vehicles don't qualify. With this bill, it would be possible for a low or moderate income New Mexican to purchase a new Chevy Bolt for an incredible $15,095. No gas car comes close to that price point. Other, newer models would achieve price parity with comparable gas vehicles with the tax credit. And since an EV can save a driver up to $17,000 over the lifetime of the vehicle in reduced fuel and maintenance costs, the economic benefits for low and moderate income New Mexicans will be enormous.

This year's tax credit sunsetted in five years, at which point new EVs are expected to be cheaper than the average conventional vehicle even without incentives.

Why is an EV tax credit necessary if the prices are coming down so fast?
Getting more New Mexicans in EVs as soon as possible will generate huge benefits for the state as a whole, in terms of cleaner air and less climate disruption. It will also benefit our economy as consumers have more cash in their pockets that they are not spending on gas. Although some new EVs are already cheaper than the gas equivalent, larger EVs are generally more expensive than the conventional alternative. The state-level EV tax credits will increase the rate at which New Mexicans purchase new EVs, meaning that the state will see the benefits of the EV transition sooner.

While their prices have come down dramatically over the last 10 years, we face a climate emergency and need to support adoption of zero-emission vehicles as quickly as possible. Supporting more rapid, wider adoption of EVs also helps bring the price down and incentivize

adoption more quickly, which is critical for climate and public health. If we want New Mexicans to realize the benefits of driving on cheaper, cleaner fuel, we need to make them a great deal now.

Are there affordable EVs and what are their prices?

There are at least 16 EV models with MSRPs below the average new vehicle acquisition price before the federal tax credit.

1. Chevrolet Bolt EV: $25,600
2. Chevrolet Bolt EUV: $27,200
3. Nissan LEAF: $27,400
4. MINI Cooper: $29,900
5. Mazda MX-30: $33,470
6. Hyundai Kona Electric: $34,000
7. Tesla Model 3 RWD: $38,990
8. Hyundai IONIQ 5: $39,950
9. Kia Niro EV: $39,990
10. Ford F-150 Pro: $39,974
11. VW ID.4: $40,760
12. Kia EV6: $40,900
13. Audi etron Q4: $43,900
14. Ford Mustang Mach E: $43,895
15. Nissan Ariya Venture: $45,950
16. Polestar 2: $45,900

The second-best-selling EV, the Tesla Model 3, is now cheaper (at $38,990) than the average gas car, even before the $7,500 tax credit. Compare that to a Ford F250 Super Duty King Ranch gasoline-powered truck at $100,250 at Power Ford in Albuquerque.

Is it true that EVs are not affordable?

The dealers supporting EV tax credits but opposing Clean Cars and Trucks rules claim that New Mexicans can't afford new EVs, but the fact is, anyone who can afford to buy a new gas car can afford to buy a new EV.

Experts from NRDC and Western Resources Advocates analyzed the vehicles offered for sale by the dealers who oppose the Clean Cars and Trucks rule. The analysis found that none of the dealers opposed to clean cars can beat the cost of buying a 2023 Chevy Bolt, which costs $19,095 after the federal tax credit. The cheapest new gas vehicles offered by the Dealers come in at around $23,000. Indeed, most of the dealers struggle to compete with *Tesla* when it comes to affordability. For example, more than half of Garcia Motors' inventory costs more than $40,000. For most New Mexicans, a new vehicle of any kind is probably not in the budget. But for New Mexicans who can afford to buy new, a Tesla Model 3 at $31,490 (after incentives) is a better deal than the Honda Accord that Garcia Motors is offering for $35,390.

Who supported the Electric Vehicle Tax Credit 2023 bill?
SB22 bill hearing 2/2/23 Senate Tax; HB412 bill hearing 2/16/23 House Energy; HB412 bill hearing 2/22/23 House Tax

- Jerry Valdez, ED of Special Projects for DOT, SUPPORT
- Ken Ortiz, Randy Trainer, NM Auto Dealers Association, SUPPORT
- Luis Guerrero, Sierra Club, Rio Grande Chapter, SUPPORT
- Kelly Fajardo, Alliance of Auto Innovation, SUPPORT
- Jim De Jardin, Renewable Energies INdustry Association, SUPPORT
- Sammi Kao, Conservation Voters New Mexico, SUPPORT
- Charles Goodmacher, Natural Resources Defense Council, SUPPORT
- Carlos Lucero, PNM, SUPPORT
- Vince Martinez, Tri-State, SUPPORT
- Tom Solomon, 350NM, SUPPORT
- Daniel Prichard, Renewable Taos and Tesla Owners Club, SUPPORT
- Barbara Calef, NM League of Women Voters, SUPPORT
- Rico Gonzalez, EPE, SUPPORT
- Deborah Condit, WRA, NM Voices for Children Action Fund, SUPPORT
- Abbas Ahkil, SUPPORT
- Brian Condit, NM Building and Construction Trades Council, SUPPORT
- Liliana Castillo, CAVU, SUPPORT
- Ken Hughes, Coalition for Sustainable Communities, SUPPORT
- Camilla Feibelman, Sierra Club Rio Grande Chapter, SUPPORT

What is the 30-mile range mentioned in the bill?
The 30 miles applies to the minimum distance a plug-in **hybrid** vehicle must be able to run on battery before it switches over to gas. All the new all-electric vehicles can go 200 to 400-plus miles on a single charge.

Does the credit apply to both EVs and plug-in vehicles?
It applies to both. It's the same credit for both. The standalone bill had a road fee of $80 for EVs and $40 for plug-in hybrids because hybrid owners do pay some gas taxes.

What is the difference between EVs and plug-in hybrids?
Electric vehicle: Only runs on electricity stored in a battery
Plug-in hybrid: has a battery that can plug in to charge as well as a gas tank.

Would other vehicles have been eligible?
RVs: No, because of the $55K cap.
Motorcycles: No, because of the definition of a vehicle
Golf Carts: No, because they are too light to qualify
E-bikes: No, but we could consider adding them.

Do the vehicles have to be purchased in NM to get the credit?
The federal tax credit would apply no matter where you buy the car. But state taxes would be paid in the state where it was purchased. The road fee is charged if a car, no matter where it was purchased, is registered in New Mexico.

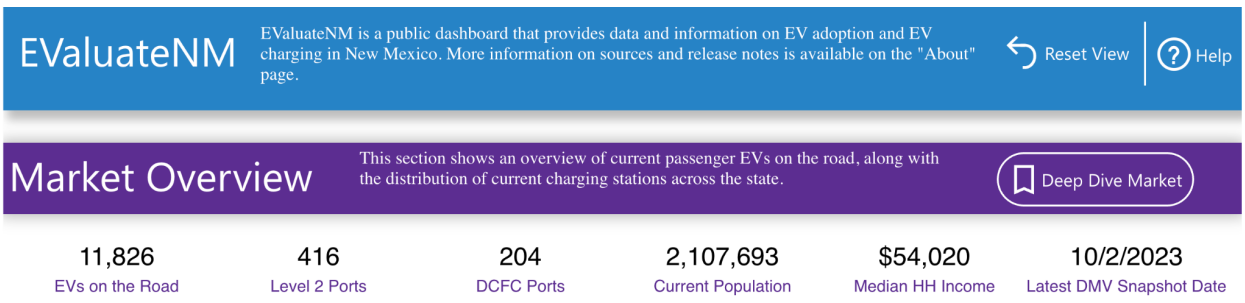
If you buy a more expensive EV, is the higher upfront cost worth it?
There can be a higher upfront cost but long term it's like driving a car with gas that costs 75 cents a gallon (or less, if you sign up for utility time-of-use rates), and maintenance costs are much lower.

What is the federal EV credit?
The federal government is offering $7500 on certain vehicles made in the US. They are working to make the rebate payable at the dealer starting in January 2024

What are the kinds of limits to what cars the federal credit can be used for?
Some of the details are still getting worked out, but it basically requires that the car be assembled in the states, there be certain income limits, and encourages onshore sources for batteries.

EVs are fine but what about bikes and public transportation? Some New Mexicans can't afford a car at all.
We absolutely should prioritize and incentivize public transportation and bikes, but many New Mexicans rely on cars. A state EV tax credit about ensuring that the cars that do come into the world are zero-emission vehicles. A lot of lower- and moderate-income people rely on cars and have to buy them. So let's make sure the cars that lower people's expenses to run and maintain are at least as affordable as the cars that are expensive to run and pollute the air we breathe.

How many electric vehicles are on the road today in New Mexico?
11,800 today (October 2023), including plug-in hybrids. In 2020 there were close to 627,000 cars registered in New Mexico (1.18%)
https://afdc.energy.gov/vehicle-registration



2022 Light-Duty Vehicle Registration Counts by State and Fuel Type												
State	Electric (EV)	Plug-In Hybrid Electric (PHEV)	Hybrid Electric (HEV)	Biodiesel	Ethanol/Flex (E85)	Compressed Natural Gas (CNG)	Propane	Hydrogen	Methanol	Gasoline	Diesel	Unknown Fuel
New Mexico	7,100	3,900	37,600	28,600	155,900	100	100	0	0	1,584,500	88,000	23,600

Look at the difference in just one year (2021)

State	Electric (EV)	Plug-In Hybrid Electric (PHEV)	Hybrid Electric (HEV)	Biodiesel	Ethanol/Flex (E85)	Compressed Natural Gas (CNG)	Propane	Hydrogen	Methanol	Gasoline	Diesel
New Mexico	4,200	2,800	32,800	25,200	156,900	200	100	0	0	1,569,000	87,600

EValuateNM is a tool with helpful data, like EV registrations by county and electric utility service territory, EV market share, and charging station development. For example, did you know that between September 2022 and September 2023 New Mexico added 137 new DCFC ports? Those are the kind of fun facts you can find with EValuateNM!

Other states have higher fees for EVs. Why is ours so low?

Just because other states have adopted laws that punish people for investing in clean cars doesn't mean New Mexico should. Consumer Reports found the maximum justifiable fee for EVs in NM was $53 and it will label any higher fee as "punitive." And this isn't just a back-of-the-envelope calculation; this study compares each state's gas tax, which are much higher in many other states, miles driven by owners, etc.

Atlas Public Policy's report outlines the real reasons for the road-funding gap, highlighting that EVs are not the problem, and evaluates alternative policy options under a range of criteria. Plug In America's guide recommends an equitable way for states to determine EV road user fees.

Are EV sales slowing down?

This has been the best year on record for EV sales in New Mexico, and the year isn't even over. Short-term factors, like a steep increase in interest rates, have led to a slowdown in new vehicle purchases generally. The medium- and long-term trend is clear: 25% of new sales in California are EVs. Europe is racing ahead. EVs are rapidly becoming more affordable and new models are being released every day. And the Clean Cars rule accommodates short-term oscillations by allowing manufacturers flexibility in how they use credits between model years.

Here's a Bloomberg article with a good global perspective, showing lots of places where EV market share has surged from single digits to 25% in just four years. States with strong policies, such as Colorado, are catching up to some of the leading countries, like France and Germany, in EV sales. Colorado EV sales hit 17 percent of the market last quarter.

Bloomberg says that "global sales of new internal combustion engines peaked in 2017, and net growth for car sales is now driven entirely by EVs. That's a trend that BloombergNEF forecasts suggest will continue until the gas-powered automobile is a museum curiosity — whether that takes another decade or five. [...] [Globally,] the EV tipping point was passed in 2021. If the trends hold true, the rest of this decade will be remembered for doing for electric cars what the 1980s did for the microwave oven."

We need stronger policies in New Mexico so that we can keep up with leading states and capture the benefits of this transition, rather than leaving New Mexicans behind.

Ironically, data presented by the auto dealers **themselves** directly discredits their claims of an EV purchasing slowdown in New Mexico. Below is the table submitted by the auto dealers on monthly sales of zero-emission vehicles from January 2022 to September 2023.

2022 EV/PHEV Market Share	January	February	March	April	May	June	July	August	Sept	October	November	December	2022 Totals
All New Vehicle Sales Statewide	4,981	4,983	6,084	5,822	5,360	5,810	4,947	5,677	5,805	5,794	5,481	6,018	66,762
New EV Sales Statewide	153	106	126	154	124	145	153	151	179	176	150	151	1,768
New PHEV Sales Statewide	32	32	54	50	46	51	36	55	39	51	64	66	576
New EV/PHEV Combined Sales Statewide	185	138	180	204	170	196	189	206	218	227	214	217	2,344
EV Market Share	3.07%	2.13%	2.07%	2.65%	2.31%	2.50%	3.09%	2.66%	3.08%	3.04%	2.74%	2.51%	2.65%
PHEV Market Share	0.64%	0.64%	0.89%	0.86%	0.86%	0.88%	0.73%	0.97%	0.67%	0.88%	1.17%	1.10%	0.86%
EV/PHEV Combined Market Share	3.71%	2.77%	2.96%	3.50%	3.17%	3.37%	3.82%	3.63%	3.76%	3.92%	3.90%	3.61%	3.51%
Regular Hybrid Sales State Wide	308	272	366	299	355	385	309	323	346	278	329	362	3,932
Regular Hybrid Market Share	6.18%	5.46%	6.02%	5.14%	6.62%	6.63%	6.25%	5.69%	5.96%	4.80%	6.00%	6.02%	5.89%
Market Share of EVs, PHEVs, Reg. Hybrids	9.90%	8.23%	8.97%	8.64%	9.79%	10.00%	10.07%	9.32%	9.72%	8.72%	9.91%	9.62%	9.40%

2023 EV/PHEV Market Share	January	February	March	April	May	June	July	August	Sept	2023 Totals
All New Vehicle Sales Statewide	6,467	5,776	7,279	6,472	7,550	7,551	6,731	7608	6350	61,784
New EV Sales Statewide	193	155	179	176	196	217	267	303	318	2,004
New PHEV Sales Statewide	74	57	54	52	67	65	90	102	83	644
New EV/PHEV Combined Sales Statewide	267	212	233	228	263	282	357	405	401	2,648
EV Market Share	2.98%	2.68%	2.46%	2.72%	2.60%	2.87%	3.97%	3.98%	5.01%	3.24%
PHEV Market Share	1.14%	0.99%	0.74%	0.80%	0.89%	0.86%	1.34%	1.34%	1.31%	1.04%
EV/PHEV Combined Market Share	4.13%	3.67%	3.20%	3.52%	3.48%	3.73%	5.30%	5.32%	6.31%	4.29%
Regular Hybrid Sales State Wide	364	345	522	436	478	59	535	587	486	3812
Regular Hybrid Market Share	5.63%	5.97%	7.17%	6.74%	6.33%	0.78%	7.95%	7.72%	7.65%	6.17%
Market Share of EVs, PHEVs, Reg. Hybrids	9.76%	9.64%	10.37%	10.26%	9.81%	4.52%	13.25%	13.04%	13.97%	10.46%

What's it like to drive an EV?

Let us not forget one of the reasons people are turning to EVs. They are fun, fast and spacious.

"Gas engines have a staggering number of moving parts, and it takes a little time for them to get turning and generate horsepower and torque. Electric motors do not have the same handicap and have very few moving parts, so they take much less time to generate maximum power. That's why you'll often hear car reviewers talk about "instant torque" or "off-the-line torque," which simply means that they don't require revving to deliver the goods. Gas engines' maximum torque output generally happens higher in the RPM range, so there is effort involved in extracting the performance.

"That near-instant torque delivery gives EVs the sensation of being quick and lively, even in less powerful models. Hard acceleration in an EV is a unique feeling because there's none of the noise and vibration that come from wide-open-throttle acceleration with gas engines. Torque and power output are consistent, so EV acceleration is also more linear and consistent than with gas."

In other words -- people are buying EVs because they LIKE TO DRIVE EVs. Although it's improved tremendously over the last several decades, the internal combustion engine is dinosaur technology and EVs will eclipse it because they are better technology -- much in the same way that smartphones are superior technology to flip phones.

How much does the average New Mexican spend on gas each year?
About $3,300 assuming $3.50/gallon gas. That's about 6% of the typical household income spent at the pump. MJ Bradley estimates that widespread EV adoption would save New Mexico drivers $20 **billion** on fuel by 2050.

Are batteries harmful to the environment?
We're bringing that battery supply chain and production on shore. That's part of the federal Inflation Reduction Act. EV batteries are absolutely recyclable and they are simply too valuable to chuck into landfills. A huge recycling facility is being built in Nevada and South Carolina now. Companies like Redwood Materials will pay good money for used batteries. Stellantis has also entered into a battery recycling agreement. EPA is spearheading efforts to foster a circular economy for lithium battery materials, which will return critical minerals to the economy, conserve resources, and reduce the overall energy use needed to produce new batteries. A company has recently applied to do exploratory drilling for lithium in Lordsburg. We can and should implement strong safety and water-use guardrails if these industries are moving here.

The Initiative for Responsible Mining Assurance https://responsiblemining.net/ is the international third-party certification for environmentally and socially responsible mining from exploration through mineral processing. Members/partners include mining companies e.g., Anglo American as well as end users — Microsoft, Tiffany, BMW, Mercedes-Benz, Volkswagen — who want to responsibly source metals, NGOs, and communities.

Here's an explanation of the battery supply chain.

How long do we need to subsidize electric vehicles?
Based on global market trends, and massive investments from automakers, new EVs are expected to be cheaper on average than conventional vehicles – without incentives – by 2027. But the sooner we get New Mexicans in EVs, the sooner we see the massive public health, climate, and economic benefits. The EV tax credit will allow us to lead the way in the EV transition.
The state credit would have been capped annually at $10 million but it sunsets when we think it'll no longer be needed. To gain the benefits of reduced fuel cost and air quality the state can invest.

What are Clean Cars and Trucks Rules?

Advanced Clean Cars (ACC II) The Clean Cars, or ACC II, program will gradually require car manufacturers to sell an increasing number of zero-emission vehicles and reduce pollution from gas vehicles sold in the interim in New Mexico. These requirements will increase annually to accelerate the transition beyond business as usual and offer flexible credits to help automakers comply with the sales requirements. The program also includes new standards for tailpipe emissions that gradually ramp up over time and reduce toxic pollution from gas-burning cars. ACC II adoption could save New Mexicans $591 per household annually. The rule could reduce the average resident's dependence on gas by 50%, promoting more stability in monthly transportation bills.

Advanced Clean Trucks (ACT) The Clean Trucks program reduces harmful pollutants — particularly greenhouse gases — by establishing annual zero-emission truck sales requirements that vary by vehicle type and gradually increase over time. ACT requires 30-50% of new sales to be zero emission in 2030 and 40-75% by 2035. None of the parties in the Environmental Improvement Board rulemaking oppose the Advanced Clean Trucks rule.

Heavy-duty Low NOx Omnibus (HDO) The HDO program would significantly reduce smog-forming pollution from new diesel-fueled trucks by strengthening the standards for nitrogen oxides (NOx) and particulates. It would require engine testing and encourage the adoption of cleaner technologies, ensuring all New Mexicans have access to healthy air. None of the parties in the Environmental Improvement Board rulemaking oppose the HDO rule.

Will Clean Cars and Trucks Rules Require People to Purchase EV?

No, the rules will require manufacturers to provide dealers with increasing percentages of EVs in New Mexico. This will give buyers more choice and finally provide EVs as a realistic option. The nation and dealers are moving to EVs, but they prioritize states with Clean Cars standards. Many EV shoppers have had a hard time finding new EVs in New Mexico and have had to buy out of state for that reason. These rules give us a chance to be early adopters and help our communities get ready for the transition.

What are the economic and health benefits of the rules?

ERM prepared this analysis of Clean Cars II for Western Resource Advocates, NRDC and the Sierra Club. The report outlines three scenarios for how manufacturers might meet requirements if New Mexico adopts the Advanced Clean Cars II program through 2035. The report finds that by 2050 the program delivers in New Mexico:

- **Cumulative net societal benefits** (the sum of public health and climate benefits, net cost savings for vehicle owners, and net utility costs from increased electricity demand for electric vehicle charging) **of up to $44 billion.**
- 85 to 93 avoided premature deaths and 48,291 to 52,482 avoided minor cases from breathing polluted air, for a total of $1 billion to $1.1 billion in health benefits.
- Reductions of up to 116 million metric tons of greenhouse gas emissions, 38,000 metric tons of NOx, and 3,300 metric tons of particulate matter.

- Creation of up to 940 jobs, many in well-paying positions in electrical component manufacturing and construction of charging infrastructure.
- Lifetime savings for individual owners of zero-emissions vehicles of between $14,000 and $16,800, depending on the year the vehicle is purchased, and vehicle miles traveled, adding up to more than $30 billion in total savings for drivers through 2050.
- Up to $24 in annual electricity bill savings for the average New Mexico household, and up to $185 annual savings for the average commercial customer, regardless of whether they drive an electric vehicle.

How could Clean Fuels fit into this concept?

- Electricity is a clean fuel that can earn credits
- Credits are generated from purchasing EVS and charging at home. Those credits go to the utilities and can be used for electrification infrastructure, with a focus on benefits for transportation impacted communities.
- The bill seeks to reduce the carbon intensity of transportation fuels by 20% by 2030 and 30% by 2040.

Latest opinion pieces on electric vehicles:

- November 7: Santa Fe New Mexican with Inez Russell Gomez with Camilla Feibelman and Tom Solomon. Podcast coming soon.
- November 5: Clean Cars Will Save Lives and Prevent Respiratory Illnesses - David Coss, Albuquerque Journal
- November 5: NM's Advanced Clean Cars and Trucks standards offer a significant step forward - Ona Porter, Albuquerque Journal
- November 3: Electric vehicle rule will be a huge win for the climate - and New Mexico's economy - David Baake, Las Cruces Sun-News
- October 8: NM EV owner to gas stations: 'I don't need you', Belen resident Ann McCartney, 350NM and NM Interfaith Power and Light board member, Albuquerque Journal
- October 6: The Albuquerque Journal's Question of the Week: The state is considering mandating that new apartments, hotels and congregate living facilities install EV chargers in 20% of their parking spaces — but should apartment complexes be excluded, given that it could add to the costs for renters?
- October 3: Camilla Feibelman Interview on Chama Valley Radio Station about cars and methane.
- October 1: Consider electric vehicles, Letter to the editor by Rio Grande Sierra Club Southern Group Chair Howard Dash published in the Las Cruces News-Sun
- September 30: Inflation Reduction Act is helping make NM healthier, Camilla Feibelman, Rio Grande Sierra Club, and Barbara Webber, Health Action NM, Albuquerque Journal
- September 28 - LTE: Charging at Home - Stefi Weisburd - Santa Fe New Mexico
- September 18: Serious heat, sacred responsibilities, Fr. Tom Smith, volunteer with New Mexico Interfaith Power and Light, Las Cruces Sun-News

- September 16: Clean car, truck rules will benefit New Mexicans, by physician Dona Upson, volunteer with the American Lung Association, Santa Fe New Mexican
- September 8: Clean car rules will benefit consumers, letter to the editor by Belen resident and EV owner Nancy Weeks Singham, Albuquerque Journal
- July 27: Shift to EVs a commonsense policy for New Mexicans**,** by EcoMadres Organizer and EV owner Ana Rios, Albuquerque Journal (Also published in Spanish in El Semanario)
- Automakers must be regulated to reduce air pollution, by Together for Brothers Community Organizer Alejandra Gonzalez, Albuquerque Journal (Also published in Spanish in El Semanario)
- Rebates and tax credits cover much of EV charger costs, by 350NM volunteer and EV owner Stefi Weisburd, Albuquerque Journal
- July 23: New Mexico can lead the charge on EV infrastructure and accessibility, by State Representative Dayan Hochman-Vigil, Albuquerque Journal
- July 15: Talk of the Town page of LTEs on EVs in the Albuquerque Journal included several positive letters (screenshot)

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