



Regional Partners — Regional Solutions

2 West Second Street Suite 800 | Tulsa, OK 74103 | 918.584.7526 | www.INCOG.org

October 19, 2020

Michael L. Velez
Deputy Counsel, Public Utility Division
Oklahoma Corporation Commission
2101 North Lincoln Boulevard
Oklahoma City, Oklahoma 73105



RE: Case No. PUD 202000083

INCOG would like to thank Commissioners and Public Utility Division (PUD) staff for the opportunity to provide input regarding the topics outlined in the Notice of Inquiry referenced above. The issues raised are important and complex.

As host agency to Tulsa Area Clean Cities, a program of the US Department of Energy, INCOG has worked on many of these issues for more than 20 years. As one of nearly 100 Clean Cities Coalitions in the US, Tulsa Area Clean Cities works to foster the nation's economic, environmental, and energy security by working locally to advance affordable, domestic transportation fuels, energy efficient mobility systems, and other fuel-saving technologies and practices. In Oklahoma this has meant a considerable focus on CNG and EV policies, vehicles, and fueling infrastructure.

Clean Cities Coalitions develop partnerships and provide technical assistance and analysis, information resources, and leverage these resources to create networks of local stakeholders and provide technical assistance to fleets implementing alternative and renewable fuels, and emerging transportation technologies. Clean Cities' efforts support a broad set of approaches that improve transportation efficiency at the local, state, and national levels. Clean Cities' activities include:

- Building partnerships with local coalitions of public- and private-sector transportation stakeholders interested in alternative fuels.
- Developing unbiased and objective information resources covering alternative fuels, advanced vehicles, new mobility choices, and other strategies to improve transportation efficiency.
- Interactive, data-driven tools to help stakeholders evaluate options and achieve goals.
- Collecting and maintaining relevant data sets to inform transportation decision making.
- Providing technical assistance to help fleets deploy alternative fuels, advanced vehicles, and fuel-saving measures.
- Working with industry partners and fleets to identify and address technology barriers and research needs.
- Empowering local decision makers to identify and implement new transportation strategies.
- Seeding local alternative-fuel markets through projects that deploy vehicles and fueling infrastructure.

As OCC works through the topics listed in the current NOI, INCOG and Tulsa Area Clean Cities stand ready to assist OCC with any of these services or resources as needed or as requested. Our staff strive to provide fuel and brand neutral third-party analysis of EV, CNG, RNG vehicle and infrastructure needs, as well as implications of these technologies. Tulsa Area Clean Cities is state and federally funded and are able to provide these resources and analysis at no cost to Oklahoma local governments and state agencies.

The NOI references two interim studies on electric vehicles. Our staff, in conjunction with the stakeholder network we have developed over the years of working on EV policy, were pleased to work hand in hand with the House on the agenda for the studies, and served as the final speaker for study 20-033, authored by Representative Brian Hill.

As was discussed in the interim study, widespread adoption of electric vehicles from all vehicle classes will likely happen faster than many regulators currently anticipate. This has myriad implications including declines in fuel tax revenue. ODOT's recently updated long range plan outlines this issue in detail. INCOG provided analysis of each of the legislature's previous proposals regarding collecting taxes from electric vehicles and has offered suggestions for more comprehensive and forward-looking alternatives. A copy of agenda and presentation prepared for Representative Hill's EV interim study is attached to this letter, which includes a high-level overview our analysis.

Comprehensive study of the issues raised in the NOI is urgent and INCOG stands ready to assist in this effort. We applaud the Commission for taking on these issues and anticipate this will be the first of many opportunities to provide input on these topics and we reserve the right to submit additional information as appropriate throughout the information gathering phase.

Thank you for your interest in these incredibly important topics.

Sincerely,

A handwritten signature in cursive script, appearing to read "Adriane Jaynes", enclosed in a rectangular box.

Adriane Jaynes
Senior Alternative Fuels Planner and Tulsa Area Clean Cities Coordinator
INCOG

CC:

Brandy L. Wreath, PUD Director
Public Utility Division

Attachments:

- Interim Study Agenda
- Interim Study Presentation by Adriane Jaynes

Transportation Electrification: Opportunities and Planning Considerations for Oklahoma

Oklahoma Capitol, Room 206
September 10, 2020

****Start time is 11:00, but may begin as early as 10:30 pending room availability****

Business Panel (1 hour and 10 minutes)

- Moderator: Amy Walton – Director of Government Relations and Strategic Initiatives, OCAST
- Audi Tulsa - John Hill, General Manager
- Spiers New Technology - President and CEO, Dirk Spiers
- Rover Taxi – Brian West, President and Founder
- Francis Energy – Eric Austin
- Enel North America – Jonathan Gray, Manager of Public Policy, and Institutional Affairs

Automotive Accelerator and State's Position for Economic Development (30 minutes)

- Oklahoma Department of Commerce - Director of Business Development, Jennifer Springer

Break 20 minutes / Working Lunch sponsored by OG&E

Transportation Electrification in Cherokee Nation (15 minutes)

- Cherokee Nation, Secretary of Natural Resources, Chad Harsha

ODOT Long Range Plan, Forecast and Planning for Electric Vehicles 2045 (35 minutes)

- Oklahoma Department of Transportation - Secretary of Transportation, Tim Gatz

Electric Utilities and Coop Panel (40 minutes)

- Moderator: Eric Austin, VP of Utility Relations at Francis Energy
- Western Farmers - Scott Williams, Manager of Government Affairs
- PSO – Jim Evers, State Government and Environmental Affairs
- OG&E – Mike Ballard, Director of Strategy
- OMPA –Sean West, Innovation Supervisor
- OAEC – Jim Reese, Director of Government & Regulatory Affairs

Electric Vehicles and Their Impact on Transportation and Air Quality Planning (10 minutes)

- Association of Central Oklahoma Governments – John Sharp, Deputy Director

EV Basics and Policy Considerations (30 minutes)

- Oklahoma Electric Vehicle Coalition – Adriane Jaynes, INCOG Energy Programs Coordinator

Planning for Electrified Transportation in Oklahoma

Adriane Jaynes, Energy Program Manager, INCOG
ajaynes@incog.org



Oklahoma EV Coalition

Vision: To inspire, support and facilitate the education about and adoption of electric vehicles in the state of Oklahoma

Mission: To be an active and cohesive group of diverse EV stakeholders who share the common interest in facilitating the adoption and awareness of EVs and EVSE in Oklahoma.

Areas of focus:

1. Education and Outreach Events
2. Infrastructure Development
3. Legislation / Policy / Regulations

Electric Vehicle Overview



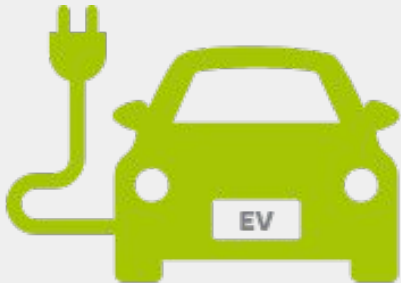
Hybrid? Plug-in Hybrid? All Electric?



Hybrids use gas and cannot be plugged in. They use a battery to assist the engine, which is recharged with kinetic energy captured through the wheels as the car slows down.



Plug-in Hybrids use gas AND electricity. They typically travel on electricity for a set number of miles, then begin using gas after the charge is depleted.



All Electric cars do not use gas. Electricity is their only fuel.

Electric Vehicle Guide

Compare vehicles online at [PlugStar.com](https://www.PlugStar.com)



All Electric Vehicles

sorted by electric range

Plug In
America



All Electric Vehicles

sorted by electric range



Tesla Model S

\$79,990

348–390 miles



Tesla Model X

\$84,990

305–351 miles



Tesla Model 3

\$39,990

250–322 miles



Tesla Model Y

\$52,990

315 miles



Chevrolet Bolt EV

\$36,620

259 miles



Hyundai Kona Electric

\$37,190

258 miles



Kia Niro EV

\$38,500

239 miles



Jaguar I-PACE

\$69,850

234 miles



Nissan LEAF

\$31,600

150–226 miles



Audi e-tron

\$74,800

204 miles



Porsche Taycan Turbo

\$150,900

201 miles



Hyundai Ioniq Electric

\$33,045

170 miles



BMW i3

\$44,450

153 miles



Volkswagen e-Golf

\$31,895

125 miles



Fiat 500e

\$33,460

84 miles



Plug-In Hybrid Vehicles



BMW i3 REX

\$48,300

126 / 200
electric total miles



Karma Revero GT

\$135,000

61 / 330
electric total miles



Honda Clarity Plug-In

\$33,400

48 / 340
electric total miles



BMW 530e

\$53,900

21 / 350
electric total miles



Audi Q5 PHEV

\$52,900

20 / 390
electric total miles



Volvo XC60 PHEV

\$54,595

19 / 520
electric total miles



Mitsubishi Outlander PHEV

\$36,295

22 / 310
electric total miles



Chrysler Pacifica Hybrid

\$39,995

32 / 520
electric total miles



Mercedes-Benz S 560e

\$109,750

31 / 549
electric total miles



Hyundai Ioniq Plug-In

\$26,500

29 / 630
electric total miles



Range Rover PHEV

\$79,000

19 / 480
electric total miles



Volvo XC90 PHEV

\$67,500

18 / 520
electric total miles



BMW i8

\$147,500

18 / 320
electric total miles



Volvo S90 PHEV

\$63,845

21 / 490
electric total miles



Kia Optima Plug-In

\$36,090

28 / 630
electric total miles



Ford Fusion Plug-In

\$35,000

26 / 610
electric total miles



Kia Niro Plug-In

\$28,500

26 / 560
electric total miles



Subaru Crosstrek Hybrid

\$35,145

17 / 480
electric total miles



Audi A8 L PHEV

\$94,000

17 / 420
electric total miles



BMW 745e

\$95,550

16 / 290
electric total miles



Lincoln Aviator Grand Touring

\$68,800

21 / 460
electric total miles



Toyota Prius Prime

\$27,750

25 / 640
electric total miles



Volvo S60 PHEV

\$56,045

22 / 510
electric total miles



Volvo V60 PHEV

\$67,300

22 / 510
electric total miles



Porsche Panamera 4

\$103,800

14 / 490
electric total miles



Porsche Cayenne S

\$81,100

13 / 450
electric total miles



Mercedes-Benz GLC 350e

\$50,650

10 / 350
electric total miles

Plug In
America.

Charging Locations

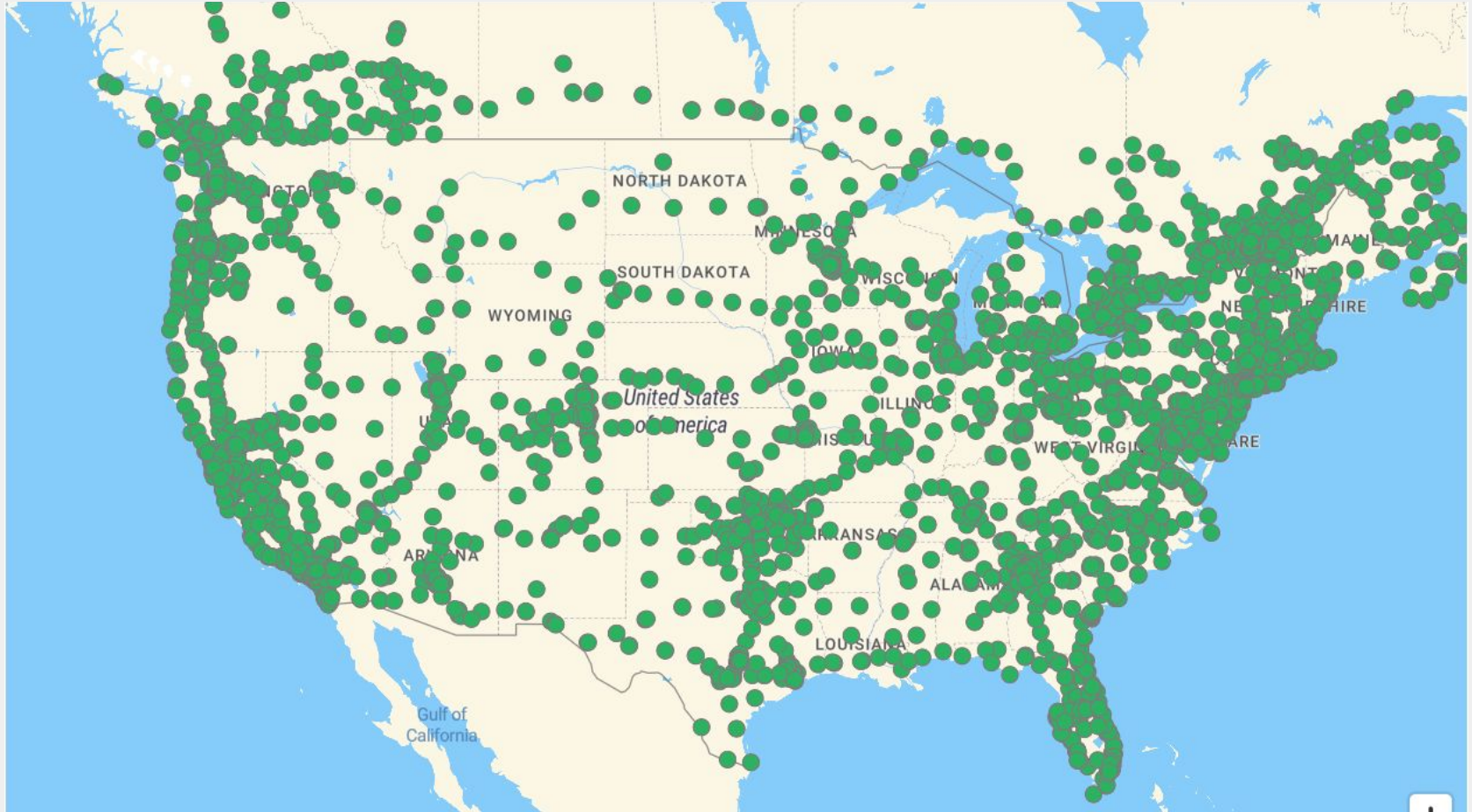
- 80-90% of charging happens at **home**.
- **Workplace** charging is a great benefit for employees & usually inspires faster EV adoption among employees.
- **Public** charging allows people to drive EVs on longer distance trips.



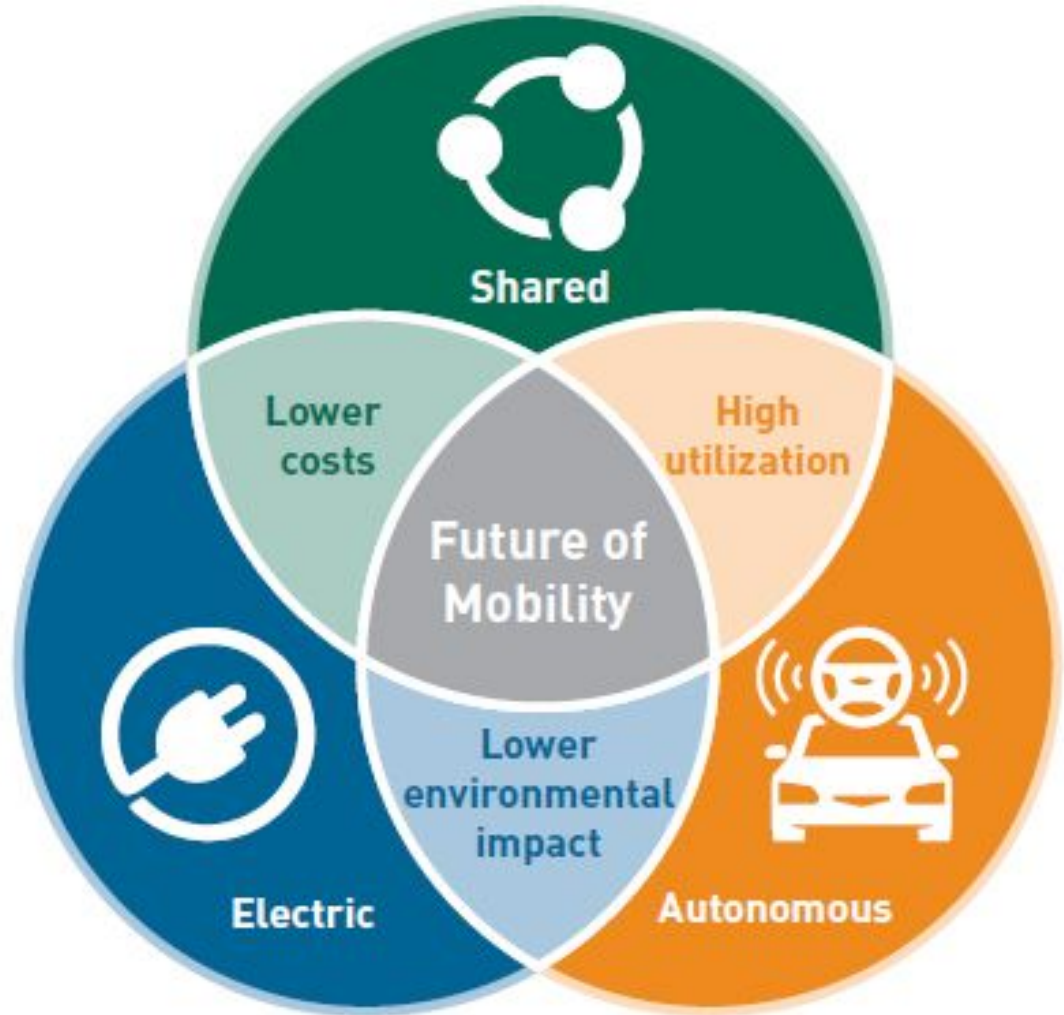
Charging: One size does not fit all locations

Charger Type	Voltage	Charging Time	Equipment Cost	Ideal Location
Level 1 (slow)	120V	2 to 5 miles of range per hour	\$0 - \$1,500	Home, some workplace, airport long term parking
Level 2 (medium)	240V	10 to 38 miles of range/hour	\$400 - \$12,000	Home, workplaces, parking garages, restaurants, retail
DC Fast (fast)	208V or 480V	60 to 150 miles of range in 20 <u>minutes</u>	\$25,000 - \$150,000	Along highways, some retail, gas stations

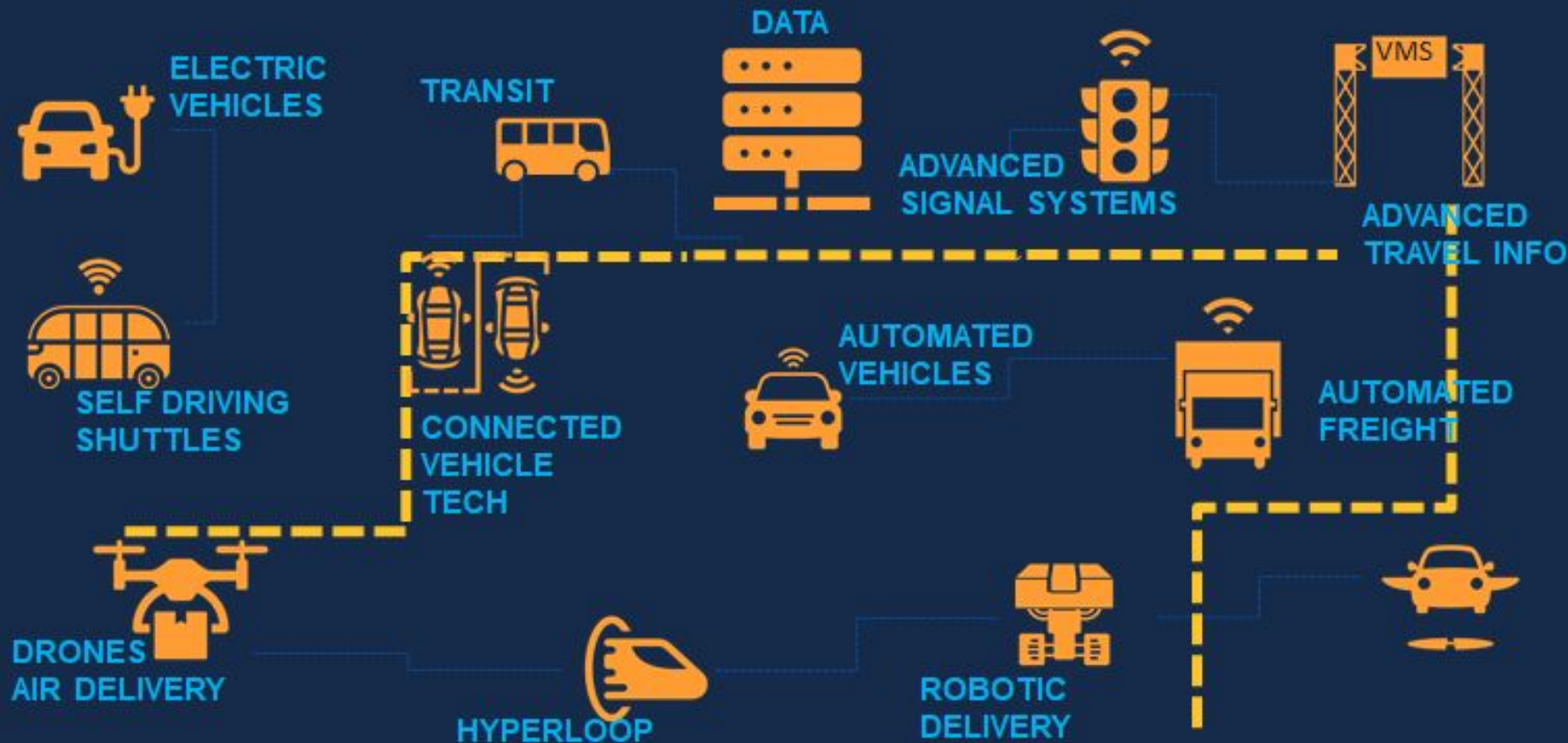
DC Fast Charging Network



New Mobility Transition



Transportation Tech at a Glance

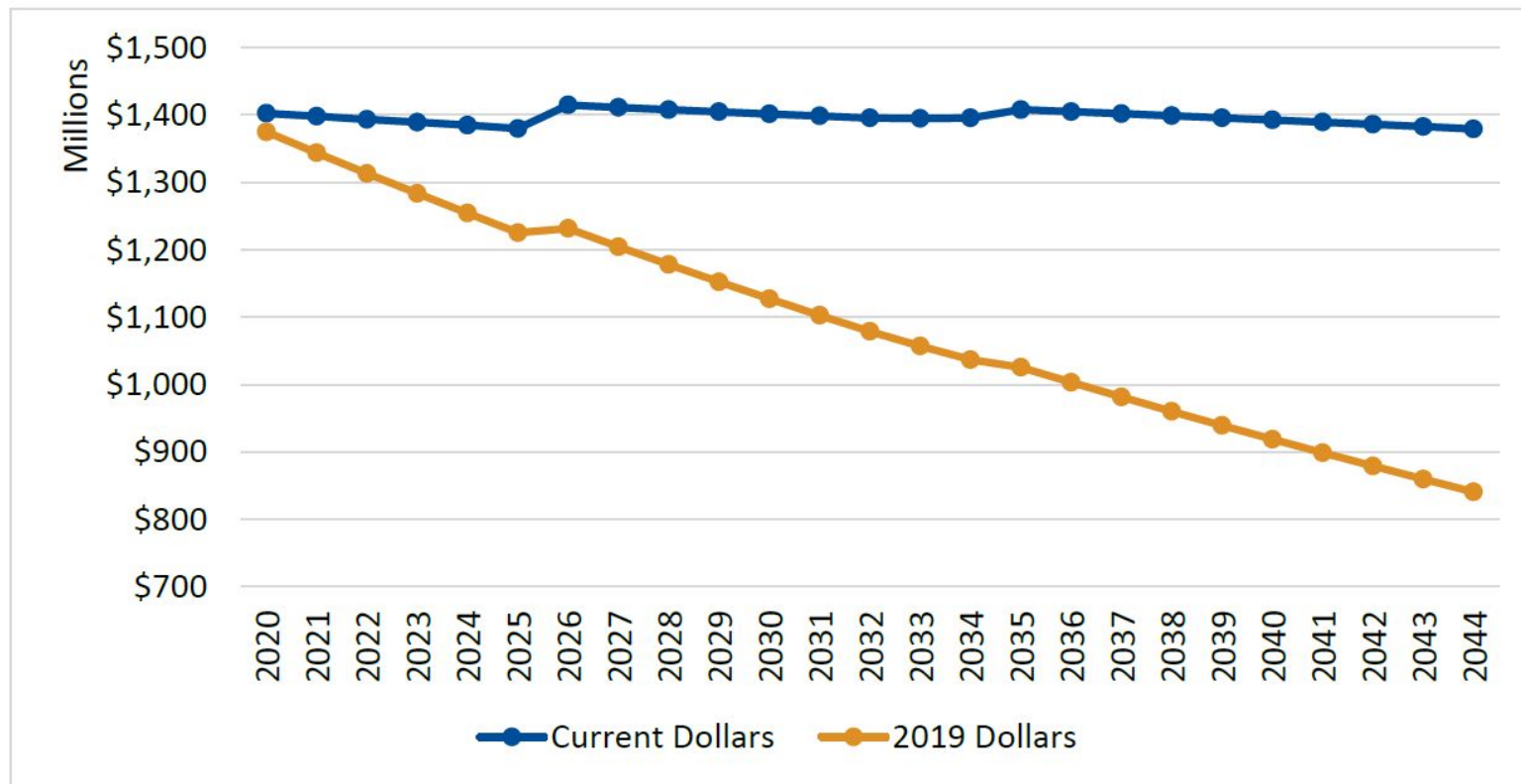




EV Policy Considerations:

Taxation and Incentives

Figure 9-1. Projected Annual Revenue to ODOT



Previous EV Taxation Proposal:

End Sales Tax Exemption

In 2020 HB 3220 proposed removal of sales tax exemption on EVs.

Non EVs would continue to pay 1.25% in sales tax, EVs would pay 4.5%. An amendment capping the tax at \$1,500 was filed.

State tax on cars is currently 4.5%

3.25% Excise tax

1.25% Sales tax

If HB 3220 had been enacted, EVs would be subject to 7.75% state tax:

3.25% Excise tax

4.5% Sales tax

Previous EV Taxation Proposal:

End Sales Tax Exemption

Pros:

- Only requires a simple majority to pass
- Allows EVs to pay road use taxes

Previous EV Taxation Proposal:

End Sales Tax Exemption

Cons:

- As proposed, taxed cars for 7-34 years of road tax at point of sale; averaged around 12 years of tax.
 - Amendment capped at \$1,500 which equals 10-15 years of tax
 - Cars are typically owned for approximately 8 years
- Separates actual road use from taxes paid
- Essentially taxes vehicle trim level for road use - cars with fewer features would pay less because overall price is lower
- Many buyers will end up financing these costs
- Double taxes plug in hybrid owners
- Double taxes car when resold

Previous EV Taxation Proposal:

Flat Tax

HB 1449 Passed in 2017, struck down by Oklahoma Supreme Court

HB 2638 - Introduced in 2018

HB 1950 - Introduced in 2019, carried over to 2020

The specifics varied from year to year, but always proposed a flat tax on EVs, Plug in Hybrids, and Hybrids. Paid annually at registration. Amounts proposed have varied from \$100-\$150 for EVs; \$60 for Plug-In Hybrids; and \$30 for hybrids

Previous EV Taxation Proposal:

Flat Tax

Pros:

- Easy to administer
- Easy to understand
- Allows EVs to pay into road use taxes

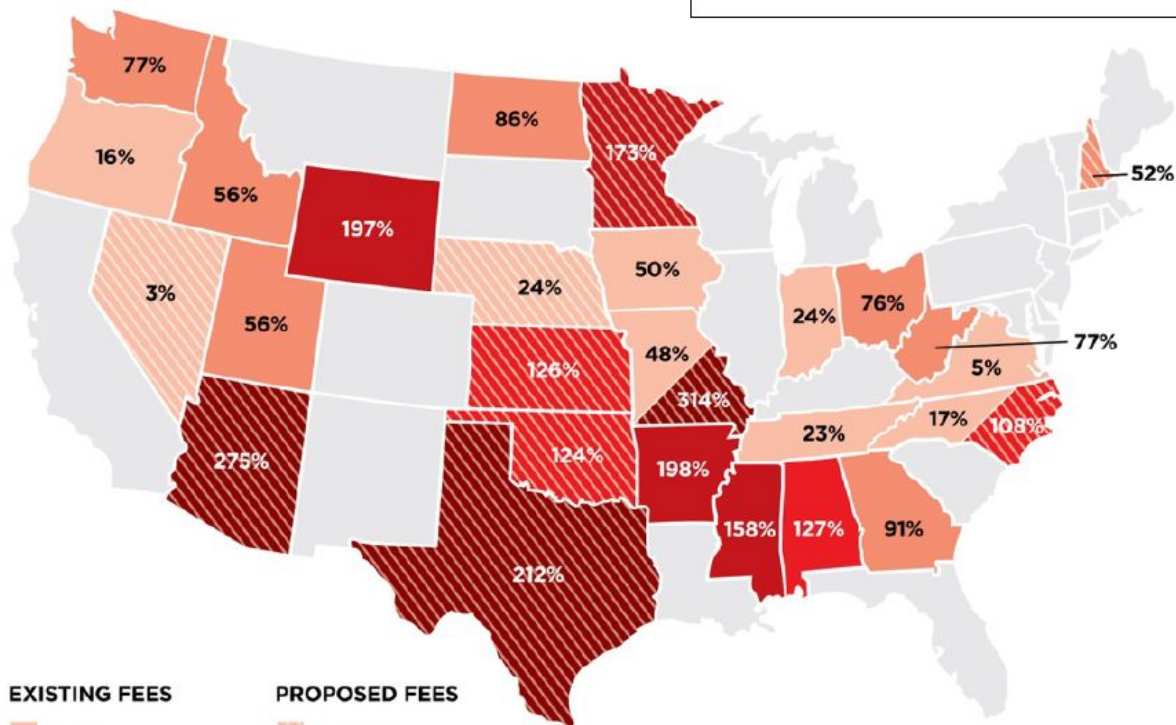
Previous EV Taxation Proposal:

Flat Tax

Cons:

- Separates actual road use from taxes paid
- Does not differentiate between compact cars and trucks/SUVs
- Does not differentiate vehicles with different capabilities
- Double taxes plug in hybrid owners
- Paid at vehicle registration, increasing the fees paid at one time can be a barrier for low income individuals
- Assessing a tax on hybrids is taxing one method of fuel efficiency
- Same constraints as current fuel tax: Not indexed to inflation, does not account for improved efficiency and range in the future
- Is insufficient to meet the need for infrastructure funding as EVs scale

Which states have the most punitive EV Fees



EXISTING FEES

- 1-50% higher
- 51-100% higher
- 101-150% higher
- 151-200% higher
- > 200% higher

PROPOSED FEES

- 1-50% higher
- 51-100% higher
- 101-150% higher
- 151-200% higher
- > 200% higher

CR Consumer Reports

About this Map:

Existing and proposed EV fees in 26 states are up to 3x higher than the annual gas tax would be for the average new car in 2025.



New Policy Considerations:

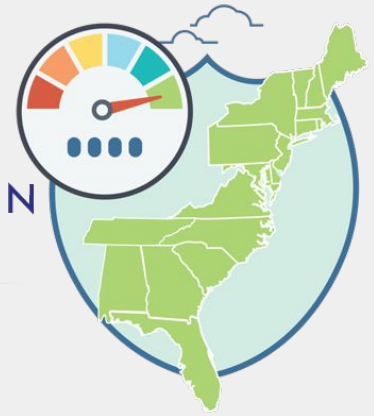
**Mileage Based User Fees
Incentives**

Road Usage Charge

Road usage charge is a user fee based on the number of miles driven instead of the gallons of fuel consumed.

— THE EASTERN
TRANSPORTATION
COALITION

MBUF STUDY



OReGO



ROAD USAGE CHARGE



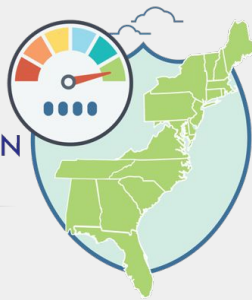
OReGO

- **Oregon DOT road usage charge pilot programs in 2006-2007 and 2012-2013**
 - Key findings of 06-07: fee can be gradually introduced; integrated with existing system of tax collection, tolling and congestion pricing; privacy can be maintained.
 - Key findings of 12-13: distance reporting tech should be consumer choice; no mandate for GPS, only aggregate mileage reporting; private sector provision of mileage reporting devices as well as processing and account services. Security was a chief concern of participants in otherwise popular pilots
 - Security was a chief concern of participants in both pilots



OReGO

- **OReGo**
- **Currently capped at 5,000 vehicles**
 - Distribution of participants mirrors population across the state
 - Vehicles with 22MPG+/EVs/PHEVs have highest enrollment in the program.
 - Exploring interoperability with California and Nevada RUC systems
- Since January 2020, EVs and 40MPG+ drivers pay less to register
 - Freeze on registration fee increases for EV and 40 mpg+ drivers who are also enrolled in OReGo.



- Pilot established to study approaches to managing out-of-state mileage; interoperability with toll collection; and the popularity of value-added benefits such as driving scores
- Currently the first in the nation to include multi-state trucking
- Participants primarily drawn from Pennsylvania and Delaware but 15 states total contributed to the study
- Participants may choose one of several reporting technologies, including plug-in devices with and without GPS, and an Android app
- Out of state driving assumed to be an unspecified percentage of participants travels
- As in Oregon's pilots, participants increased their understanding of both MBUF and fuel tax infrastructure funding schemes.
- Pilot also explored equity perceptions

ROAD USAGE CHARGE

- Currently open only to alternative fuel vehicles
- Alternative to \$90 flat fee due at registration
 - AFV drivers may choose to either pay an additional flat fee during annual registration, or participate in the RUC program at 1.5 cents a mile.
- Road Usage Charge capped at same dollar amount a driver would pay if they had opted for the flat registration fee
 - An EV driver would pay no more than \$90.00 in in road usage charges for the year registration year 2020.
- Participants may opt out at any time
- UTDot captures road user data via the DriveSync app
- Does not currently exempt for out of state milage
- Unable to opt out of location data collection, but data collected is exempt from public disclosure

Potential Incentive Types

- Income tax credit to individuals for buying EVs
- Sales or excise tax exemptions
- Waived registration fees
- Waived fuel taxes

Any of these could be capped, sunsetted, or have trigger language allowing them to expire.



**Thank
You**

ajaynes@incog.org

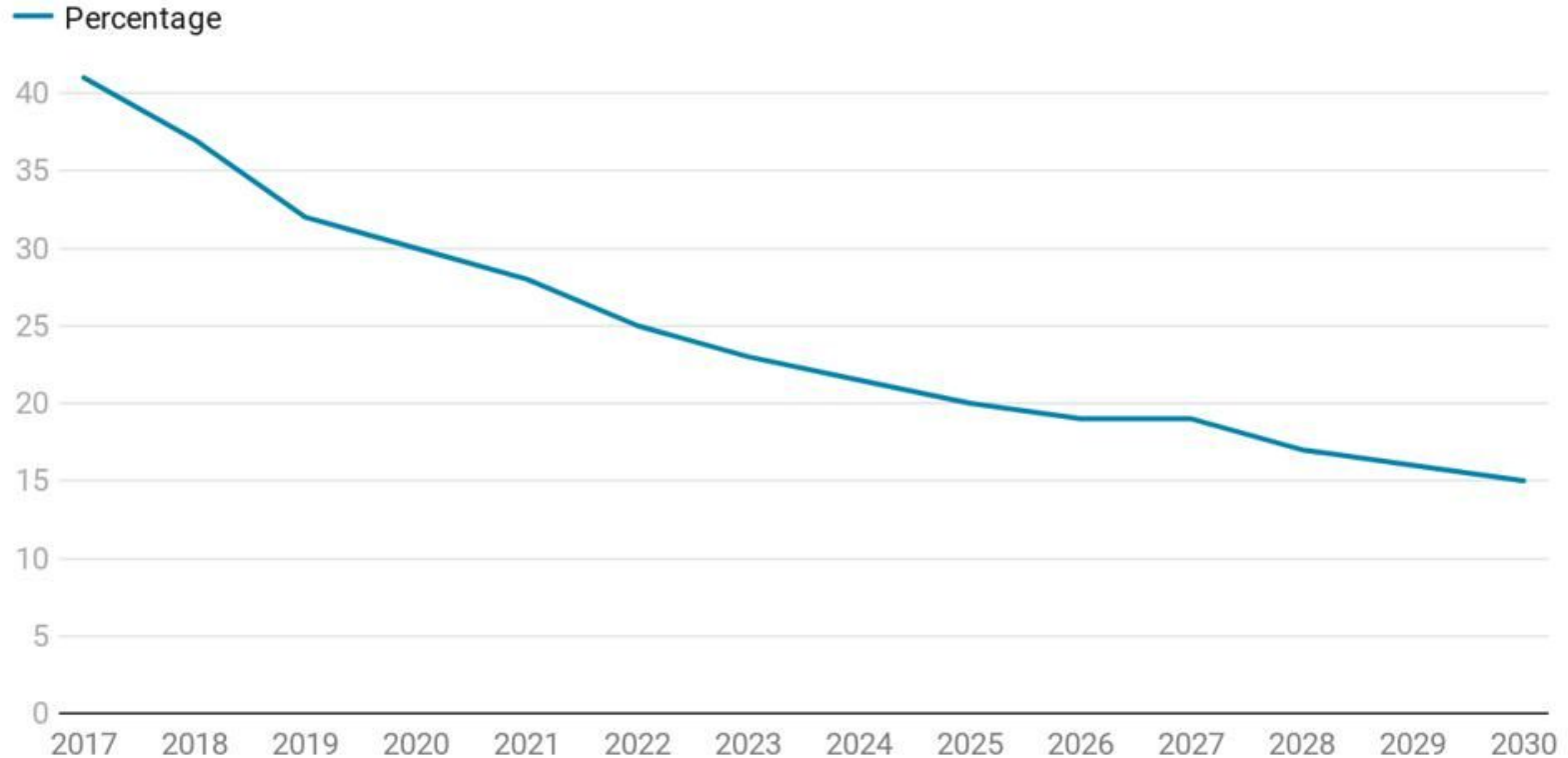


Additional Information

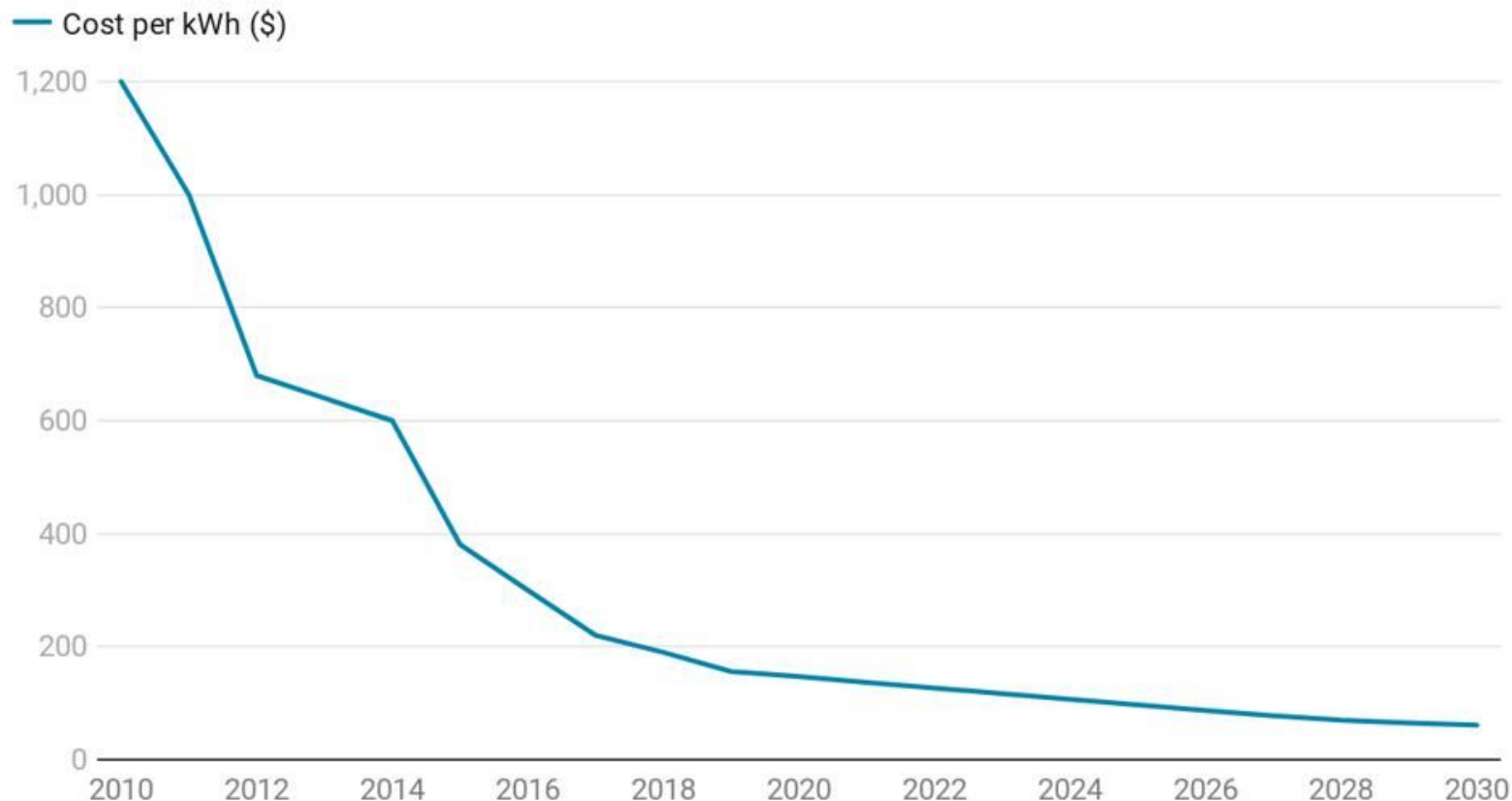


Selected New EVs MY 2020									
Make	Model	Trim	MSRP	Current Sales Tax	4.5% Sales Tax	Difference	Years Tax @ \$100	Years Tax @ \$125	Years Tax @ \$150
Audi	eTron	base	\$ 74,800.00	\$ 935.00	\$ 3,366.00	\$ 2,431.00	24.31	19.45	16.21
Audi	eTron	highest	\$ 81,800.00	\$ 1,022.50	\$ 3,681.00	\$ 2,658.50	26.59	21.27	17.72
Chevy	Bolt	base	\$ 37,495.00	\$ 468.69	\$ 1,687.28	\$ 1,218.59	12.19	9.75	8.12
Chevy	Bolt	highest	\$ 45,600.00	\$ 570.00	\$ 2,052.00	\$ 1,482.00	14.82	11.86	9.88
Nissan	Leaf	base	\$ 29,990.00	\$ 374.88	\$ 1,349.55	\$ 974.68	9.75	7.80	6.50
Nissan	Leaf	highest	\$ 46,670.00	\$ 583.38	\$ 2,100.15	\$ 1,516.78	15.17	12.13	10.11
Tesla	3	base	\$ 35,690.00	\$ 446.13	\$ 1,606.05	\$ 1,159.93	11.60	9.28	7.73
Tesla	3	highest	\$ 66,990.00	\$ 837.38	\$ 3,014.55	\$ 2,177.18	21.77	17.42	14.51
Tesla	X	base	\$ 84,990.00	\$ 1,062.38	\$ 3,824.55	\$ 2,762.18	27.62	22.10	18.41
Tesla	X	highest	\$ 104,990.00	\$ 1,312.38	\$ 4,724.55	\$ 3,412.18	34.12	27.30	22.75
				Average Years of Road Tax Paid at Point of Sale			16.06	12.85	10.71

Percentage cost of lithium-ion batteries compared to total cost of an electric vehicle



Price of lithium-ion battery packs per kWh



Source: BloombergNEF • Created with Datawrapper