









Electric & Hybrid Vehicle Parity Fee Information

Transportation Resource Advisory Committee and Community Collaboration Regional Transportation Commission of Southern Nevada October 23, 2024 3:00 PM

Jeff Doyle, J.D., Transportation Advisory Services CDM Smith Travis Dunn, Ph.D., Transportation Advisory Services CDM Smith

Introduction

CDM Smith Inc. Transportation Advisory Services was retained by the Nevada Department of Transportation to provide financial and policy analysis and support for the Nevada Sustainable Transportation Funding Study and 29-member Advisory Working Group (AWG), originally commissioned by AB 413 (2021) to investigate transportation funding needs and sustainable revenue options for Nevada's transportation system.

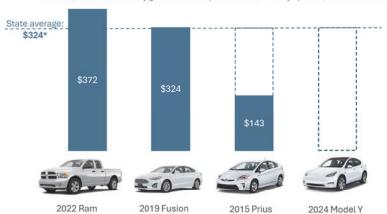
CDM Smith continues to provide analysis in support of the Final Recommendations issued by the Advisory Working Group.

Presenting today:

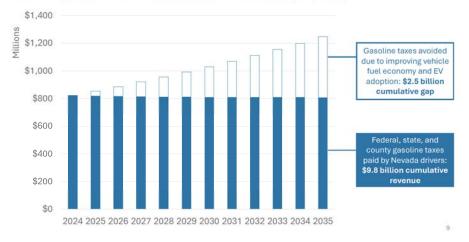
Jeff Doyle, J.D., CDM Smith

Travis Dunn, Ph.D., CDM Smith Electric drive vehicles and hybrids contribute less than average (or for EVs, zero) in gas tax revenue needed for the upkeep and maintenance of the state's roads and bridges

Federal, state, and county gasoline taxes paid in Clark County* per 10,000 miles driven

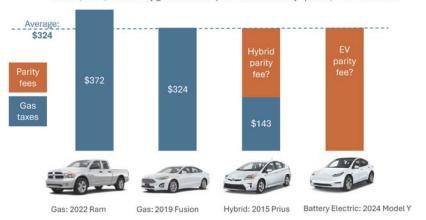


In aggregate, avoided contributions of federal, state, and county gasoline taxes by EVs and hybrid vehicles will grow to over \$400 million per year by 2035



Options exist for achieving gasoline tax parity through additional vehicle registration fees – "Parity Fees"

Federal, state, and county gasoline taxes paid in Clark County* per 10,000 miles driven



Considerations for establishing parity fees for electric and hybrid vehicles

Fairness

Fixed registration fees approximate parity with gas taxes on average. Fees that vary by vehicle fuel economy and/or miles driven provide a closer approximation to parity with gas taxes on an individual basis.

Complexity of implementation

Revenue yield

Considerations for establishing parity fees for electric and hybrid vehicles

Fairness

 Fixed registration fees approximate parity with gas taxes on average. Fees that vary by vehicle fuel economy and/or miles driven provide a closer approximation to parity with gas taxes on an individual basis.

Complexity of implementation

Nevada DMV will be responsible for collecting parity fees. More complex fee structures such as fees that vary by county of residence or vehicle characteristics will require additional time and effort to program, whether on DMV's legacy system or the modernized system.

Revenue yield

Considerations for establishing parity fees for electric and hybrid vehicles

Fairness

 Fixed registration fees approximate parity with gas taxes on average. Fees that vary by vehicle fuel economy and/or miles driven provide a closer approximation to parity with gas taxes on an individual basis.

Complexity of implementation

Nevada DMV will be responsible for collecting parity fees. More complex fee structures such as fees that vary by county of residence or vehicle characteristics will require additional time and effort to program, whether on DMV's legacy system or the modernized system.

Revenue yield

Depending on how parity fee rates are set, a portion of the revenue gap created by declining gas tax contributions can be addressed. Parity fees do not address the revenue gap created by highly fuel-efficiency conventional cars.

Example Parity Fee Approaches

Example 1: Fixed Parity Fee. Electric and hydrogen fuel cell vehicles pay a fixed yearly amount that varies by county. Hybrids that <u>do not plug in</u> pay 50% of the Parity Fee. Less fair, simpler to implement

The average vehicle in Nevada drives 9,234 miles per year at 23 miles per gallon. In Clark County, this translates to \$299 per year in federal, state, and county gasoline taxes.

Considerations for establishing parity fees for alternative fuel vehicles

Fairness

Fixed registration fees approximate parity with gas taxes on average. Fees that vary by vehicle fuel economy and/or miles driven provide a closer approximation to parity with gas taxes on an individual basis.

Complexity of implementation

Nevada DMV will be responsible for collecting parity fees. More complex fee structures such as fees that vary by county of residence or vehicle characteristics will require additional time and effort to program, whether on DMV's legacy system or the modernized system.

Revenue yield

Depending on how parity fee rates are set, a portion of the revenue gap created by declining gas tax contributions can be addressed. Parity fees do not address the revenue gap created by highly fuel-efficiency conventional cars.

Example 1: Fixed Annual Fee Schedule by County

Based on federal, state, and county gasoline taxes paid for a statewide average vehicle (driven 9,234 miles per year at 23 miles per gallon)

County	EV and PHEV	Hybrid
Washoe	\$402	\$201
Clark	\$299	\$150
9-cent counties*	\$206	\$103
4-cent counties**	\$186	\$93
Statewide average	\$304	\$152

*Carson City, Churchill, Douglas, Elko, Humboldt, Lander, Lyon, Mineral, Nye, Pershing, White Pine

^{**}Esmerelda, Eureka, Lincoln, Storey

Example Parity Fee Approaches

Example 2: Usage-based Parity Fee. All vehicles subject to the Parity Fee pay an amount that varies based on the vehicle's county of residence, MPG or MPGe rating, and annual usage (measured in miles driven).

More fair, more complex to implement

Fees can vary depending on choices made in the development of a rate table. In this example, fees vary from \$28 to \$724 per year depending on county, vehicle type, MPG rating, and annual miles driven.

Example 1: Fixed Fee, Clark County, 7k miles/year



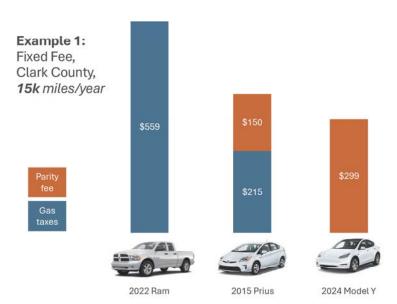
.



2015 Prius

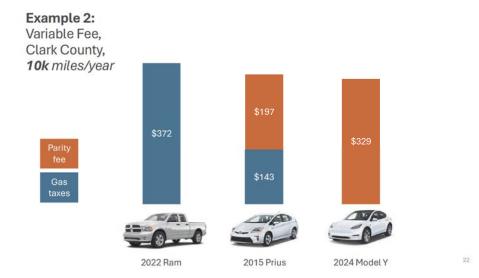
2024 Model Y

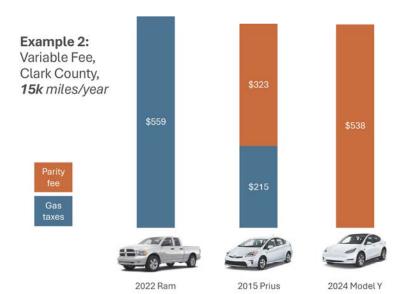
2022 Ram



Example 2: Variable Fee, Clark County, 7k miles/year





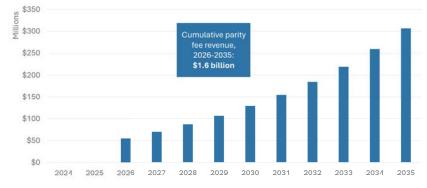


Estimated Annual Parity Fee Revenues

Note: inflation index assumed at 2.5% per year

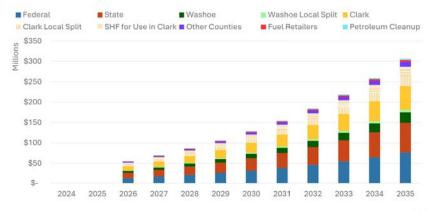
21

23



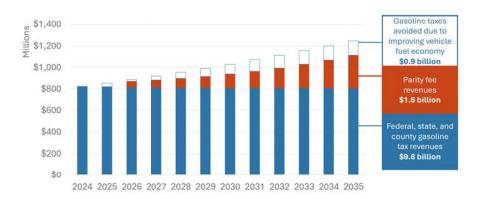
Distribution of Parity Fee Revenues Following Motor Fuel Tax Statutes*

* Estimates assume all counties opt in to a county parity fee



Parity fees fill a portion of the statewide gas tax revenue gap

Note: inflation index assumed at 2.5% per year

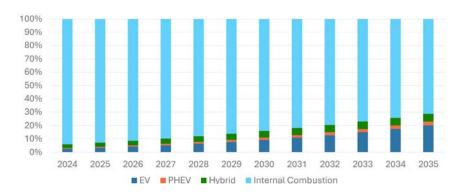


26

25

27

Assumed Vehicle Population



Questions?

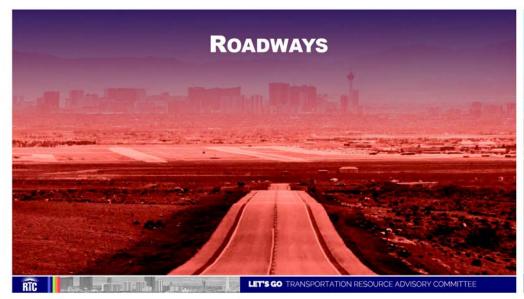
Travis Dunn, Ph.D., Transportation Advisory Services CDM Smith

Dunntp@CDMSmith.com

Thank you.









RTC FUEL TAX COLLECTIONS

S250 M

\$200 M

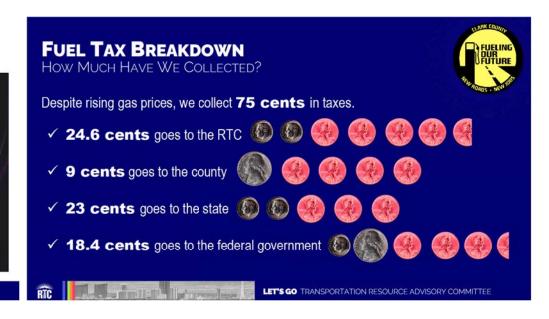
\$150 M

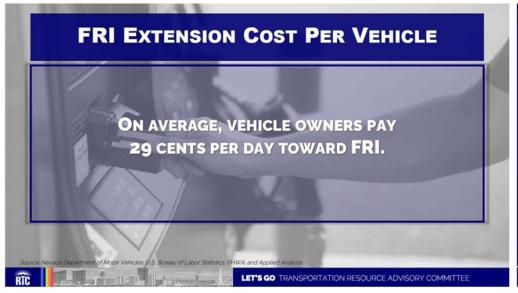
\$100 M

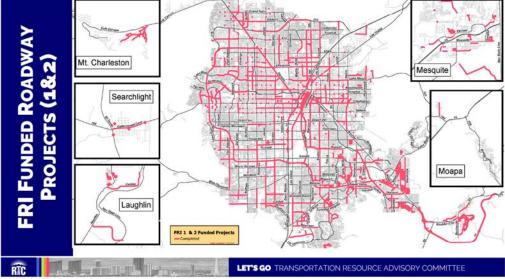
\$50 M

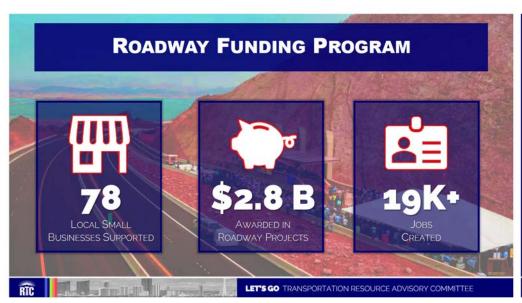
FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17 FY18 FY19 FY20 FY21 FY22 FY25

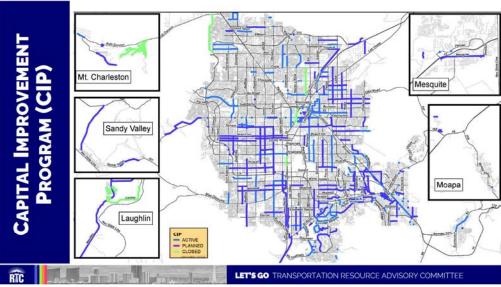
Source Regional Transportation Commission Note: Totals include revenue for gasoline and special fuels such as diesel

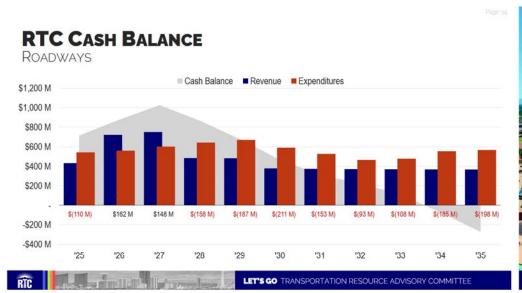




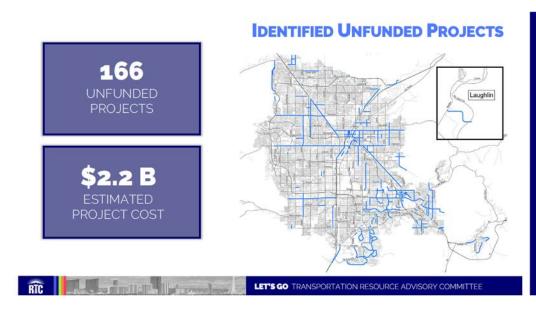


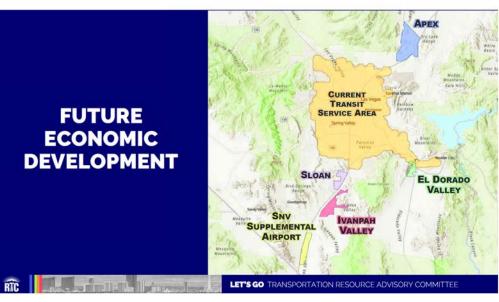








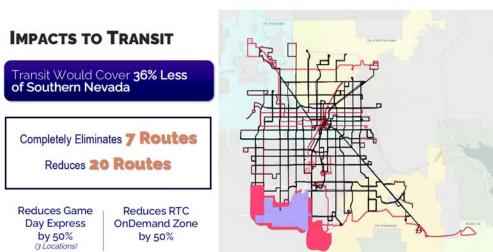












IMPACTS TO TRANSIT

Eliminates Service to 343K Residents (19%) of Current Population



57,000+

Jobs would be inaccessible



22,000+

Residents **living below the poverty line** would
lose service



4,600+

Residents without access to a car will be without transit service

IMPACTS TO PARATRANSIT AND SPECIAL SERVICES

Reduces service area by 93.6 miles

- · Eliminates services to 3 major hospitals
- Reduces paratransit service by 6,200 rides monthly to impacted businesses and medical facilities
- Reduces senior and veteran services
- Reduces Community Mobility Grants, impacting 6 nonprofits that support seniors and persons with disabilities
- Reduces supplemental Medicaid adult day care trips to g providers



LET'S GO TRANSPORTATION RESOURCE ADVISORY COMMITTEE

Vacinimer: Board upon current emientions in Ontober 2024, the PTC may move forward with those connec

RTC

LET'S GO TRANSPORTATION RESOURCE ADVISORY COMMITTEE

Disclaimer: Based upon current projections in October 2024, the RTC may move forward with these proposed reductio

RTC

LET'S GO TRANSPORTATION RESOURCE ADVISORY COMMITTEE





SOME QUESTIONS SINCE LAST MEETING

- When would the FRI reauthorization occur?
- Is the revenue potential for extending FRI enough on its own?
- Can you demonstrate the flexibility with the Q10 dollars?
- What happens to the bottom line with an EV parity fee?
- Would an alternative conveyance fee solve the problem?
 - Can you explain the ballot question authorization?
 - Can't we simply reduce long-term transportation investments?
 - How significant would the transit cuts be?
 - What happens if you get nothing?









