

# Electricity as a Vehicle Fuel

Presented by Fresh Energy to Legislative Working Group

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## EVs and Grid Impacts

EVs optimize use of our electric grid because they can be charged at low-demand periods (“off-peak”)

*In Minnesota, this is commonly overnight when overall electricity demand is low but wind production can be high, which means EVs that charge overnight in MN tend to charge with zero or low carbon electricity, thereby optimizing **climate benefits** and **cost savings** for EV owners who can charge at home*

Utilities often create EV-specific electricity rates that incentivize charging during this time-period.

○ These programs have high (80%+) success of getting light-duty EVs to charge “off-peak”



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## EVs and Grid Impacts

Because EVs can use *available* demand on our electric grids, they are able to increase electricity revenue at utilities with lower additional costs

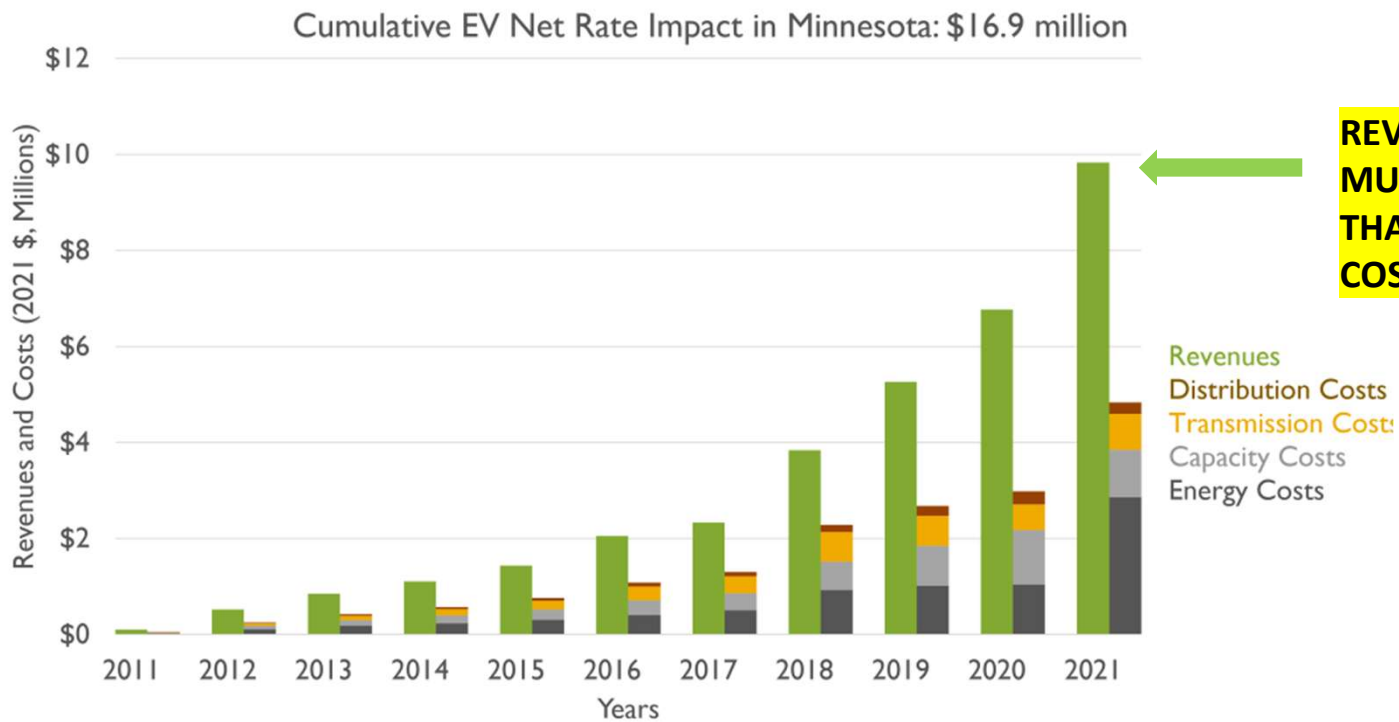
**This dynamic creates downward pressure on electricity rates for *all* ratepayers.**

Recent analysis shows that since 2011, EVs in Minnesota have contributed **\$16.9 million** in *net revenues* to utilities.



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# Minnesota



**REVENUES ARE MUCH HIGHER THAN ADDED COSTS**

Source: [Synapse Energy Economics, "EVs are Driving Rates Down For All Customers", June 2024](#)





## Electricity taxes

Electricity used to power EVs is already subject to a sales & use tax in Minnesota

*Tax applies to \$/kWh and any associated fixed fees (e.g. demand charges, service fee, etc)*

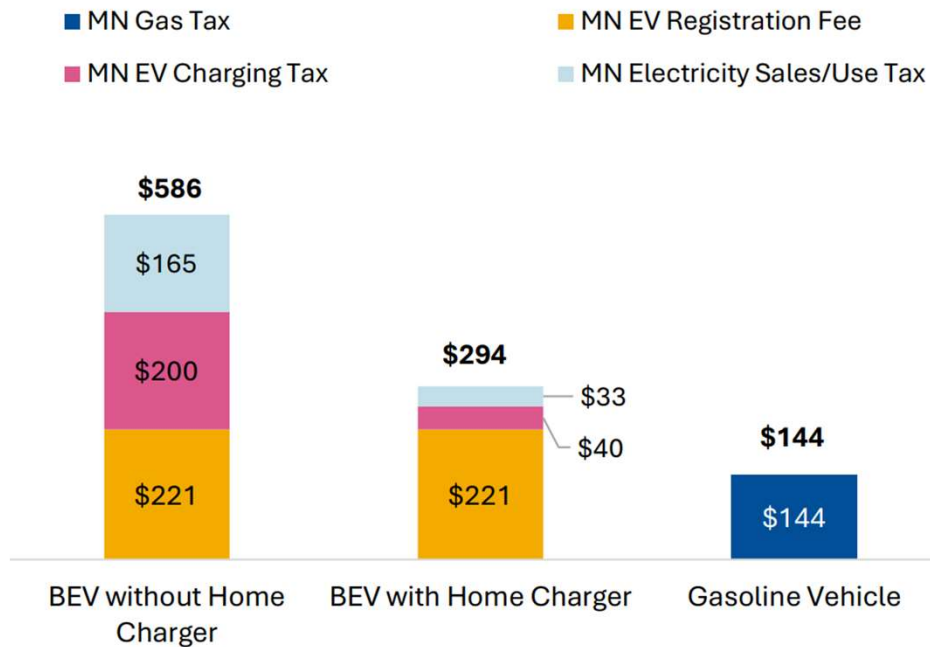
This sales & use tax flows directly into the **state's general fund**

Certain end uses are exempt from this, including electricity used in **industrial and agricultural production** and for residential heating.



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Average State Taxes and Fees for Electric Vehicles vs Gasoline Vehicles in MN



“These taxes and fees make Minnesota the state with the **highest EV penalty** [on those without home chargers] **in the United States**”

**RE: public charging tax:** estimated revenue expected by 2030 accounts for **<0.28%** of highway spending

Source: [Atlas Public Policy, “Revenue or Roadblock? Impacts of Electric Vehicle Charging Taxes: Minnesota Factsheet,” Sept 12, 2025](#)



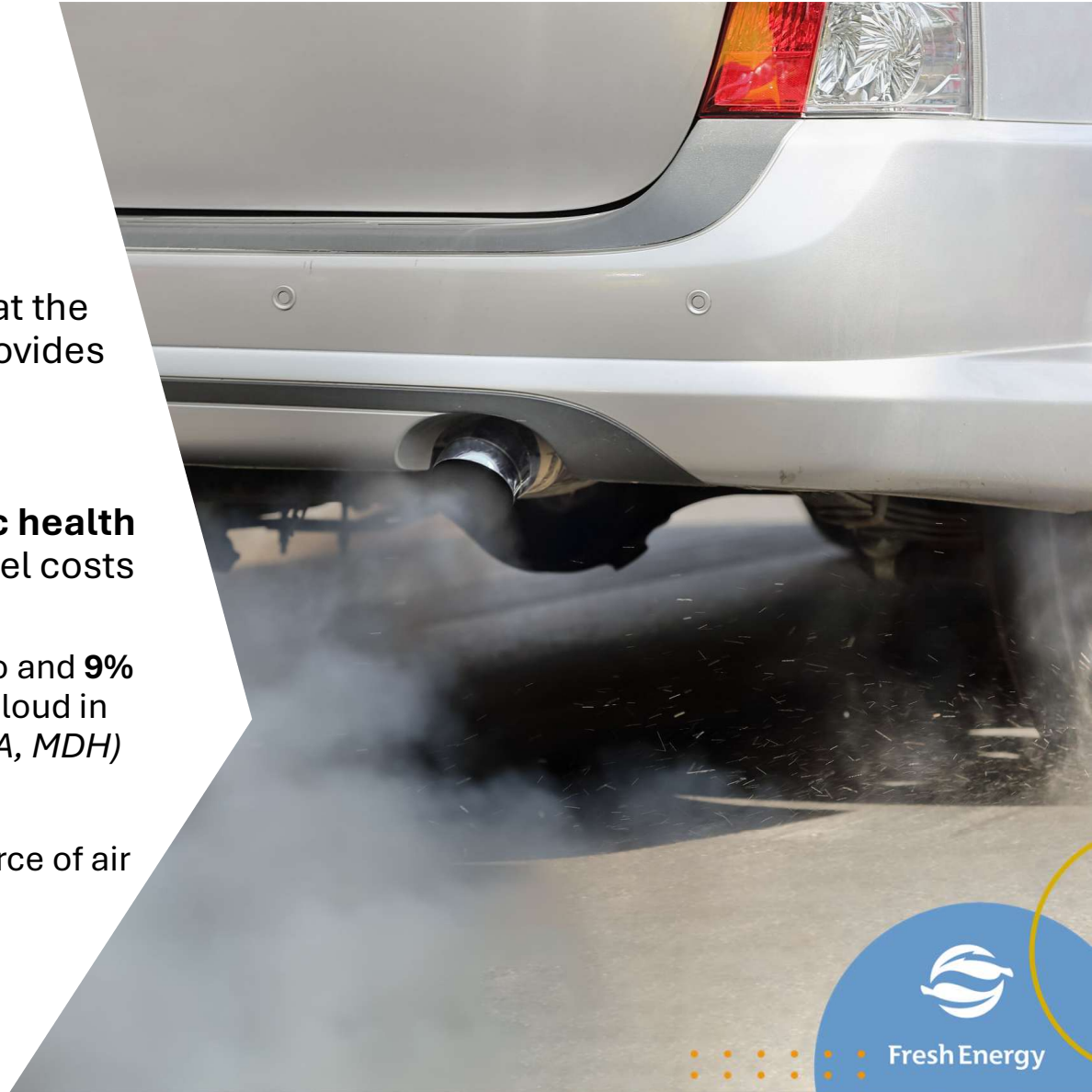
## Public Health

Electric vehicles have low or no emissions at the tailpipe, which reduces air pollution and provides **quantifiable public health benefits**

Gasoline vehicles have **externalized public health costs** that are not represented in current fuel costs

>> An estimated **10% of deaths** in the Metro and **9% of deaths** in Duluth, Rochester, and Saint Cloud in 2015 came from air pollution (*source: MPCA, MDH*)

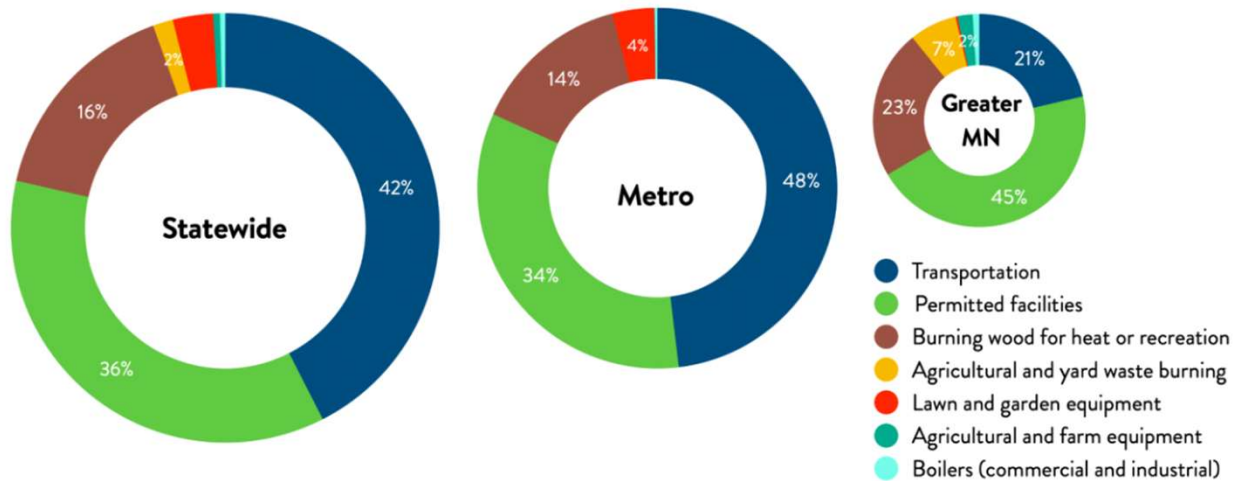
>> Transportation makes up the largest source of air pollution in Minnesota



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# The Causes of Air Pollution in Minnesota

Transportation is the leading source of air pollution in Minnesota



Source: [MPCA, "The air we breathe," January 2025](#)

These health benefits from moving to zero-emissions vehicles give the scale of **public health costs from internal combustion engine vehicles**

By achieving 100 percent zero-emission passenger vehicle sales and non-combustion clean electricity generation by 2035, the national, cumulative health benefits could reach the following levels by 2050:



**\$978 billion in public health benefits**



**89,300 fewer premature deaths**



**2.2 million fewer asthma attacks**



**10.7 million fewer lost workdays**

Source: American Lung Association, "[Drive to Clean Air: Health Benefits of Zero-Emission Cars and Electricity](#)", June 2023





# Fresh Energy Takeaways

**EVs roadway fees are disproportionate compared to what equivalent gasoline vehicles pay**

**A holistic look at all available funding sources to replace lagging gas taxes and increasing EVs is required**

- Placing additional fees on EVs will not solve roadway funding but will have an outsized impact in the nascent market on dampening EV adoption and growth
- Electric Vehicles have many benefits beyond getting users from point A to point B
- Taxes and fees are a major policy tool and demonstrably used to support economic development, market growth, public health, etc