JEC JOINT ECONOMIC COMMITTEE DEMOCRATS
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# Electrifying Commercial Transportation Will Generate Significant Climate Benefits, Save Companies Money and Reduce U.S. Dependence on Foreign Oil

Electric vehicles (EVs) are a large and rapidly growing part of the vehicle market. Commercial vehicle fleets in particular have the potential to speed the transition to zero emissions transportation that will create climate and economic benefits for the United States and the rest of the world.

- Electric vehicles are crucial for U.S. energy independence and cutting carbon pollution
- Because commercial vehicles are driven most, electrifying these vehicles is key to cutting transportation emissions
- The Inflation Reduction Act invests in commercial EVs, incentivizing electrification at USPS and fleets of commercial vehicles across the economy
- When businesses transition to electric vehicles they create an outsized impact on reducing emissions, bringing down energy cost, and making supply chains resilient to oil shocks

The Inflation Reduction Act (IRA) is the most significant investment in clean energy in U.S. history and includes more than $7 billion in commercial EV investment. Along with the bipartisan Infrastructure Investment Jobs Act, Congress and the Biden administration have made a strong start to fully electrifying public and private commercial vehicle fleets.

## *Electric vehicles are a growing part of the auto industry that can help fight climate change and reduce energy costs for businesses*

The global market for electric vehicles (EVs) is valued at over $160 billion and is growing rapidly; it is expected to quintuple by 2030. Car and truck manufacturers have significantly increased their production of electric vehicles and sold nearly 6.5 million EVs around the world in 2021, which is more than double the sales in 2020. Tesla alone delivered more than 900,000 vehicles in 2021, outstripping expectations.

This increase in sales reflects gains in the competitive advantage of EVs relative to combustion engine cars. Most current electric vehicles outperform traditional vehicles on nearly every performance and efficiency metric except driving range, which is growing less relevant as charging infrastructure improves. Early EV adopters have created benefits for current car buyers choosing EVs. Those benefits include reducing range anxiety by creating demand for things like charging stations and service shops, as well as dramatically lowering the upfront cost of EVs.

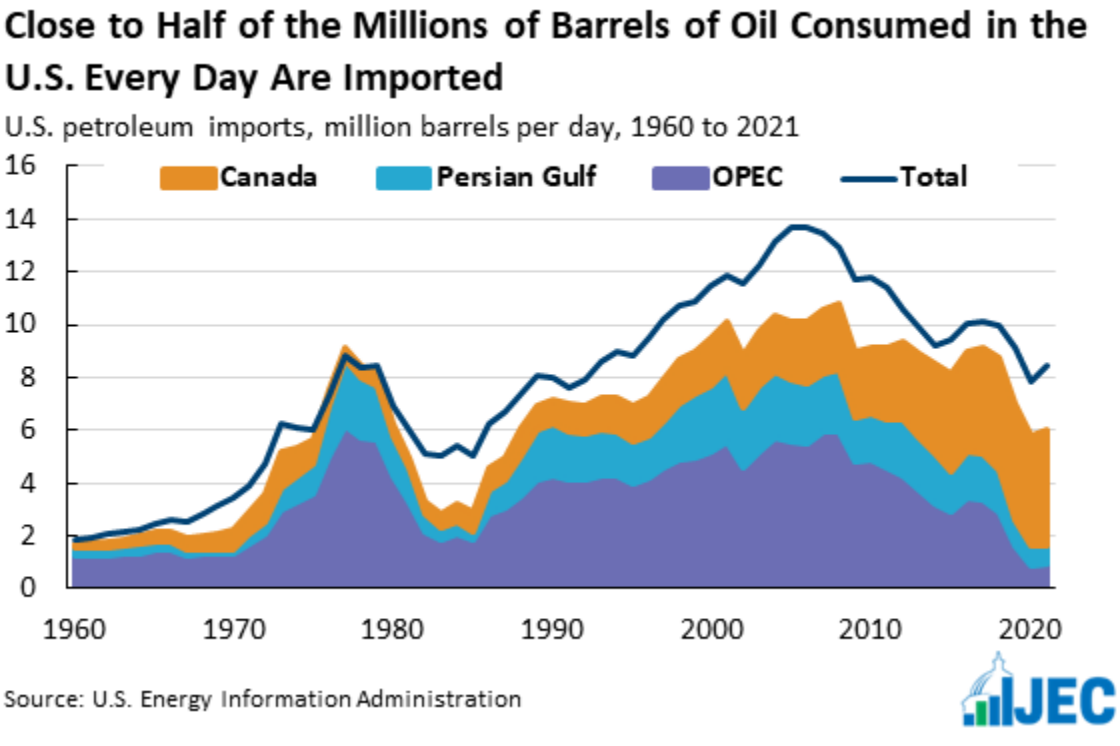
As part of the effort to bring down carbon emissions and reduce dependence on foreign oil, the Biden administration has committed to aggressively supporting this transition and set the ambitious goal of transitioning at least half of new car sales to EVs by 2030. Thanks to new investments in the recently enacted bipartisan Infrastructure Investment and Jobs Act, significant

progress is already being made to achieve this goal. In a recent AAA survey, one quarter of Americans say their next car purchase will be an electric vehicle.

While investments aimed at family or private vehicles play a critical role in the transition to electric-powered vehicles, targeting resources on the transition to commercial electric vehicles will result in the biggest and most immediate emissions reductions. Climate and health benefits from EVs come from replacing miles that would have been traveled by vehicles powered by gasoline or diesel. Because commercial vehicles, such as delivery trucks, buses and work vans, are driven significantly more than typical family cars, shifting commercial vehicles from fossil-fueled to running on domestically-generated electricity would produce rapid cost-savings, reductions in our nation's dependence on imported fossil fuels and improvements in air quality.

### *Electric vehicles can help quickly reduce U.S. carbon emissions and increase energy independence*

Electric vehicles can be an effective way to reduce carbon emissions when they replace gas-burning vehicles that drive—and thus emit—the most. Transporting people and items, mostly by cars and trucks, is one of the highest-emitting activities in the U.S. economy today and accounts for around 30% of U.S. greenhouse gas emissions and two-thirds of U.S. oil consumption. In 2021, U.S. drivers covered 3.2 trillion miles and consumed about 8.8 million barrels of gasoline every day. More than 40% of this gasoline came from foreign sources.

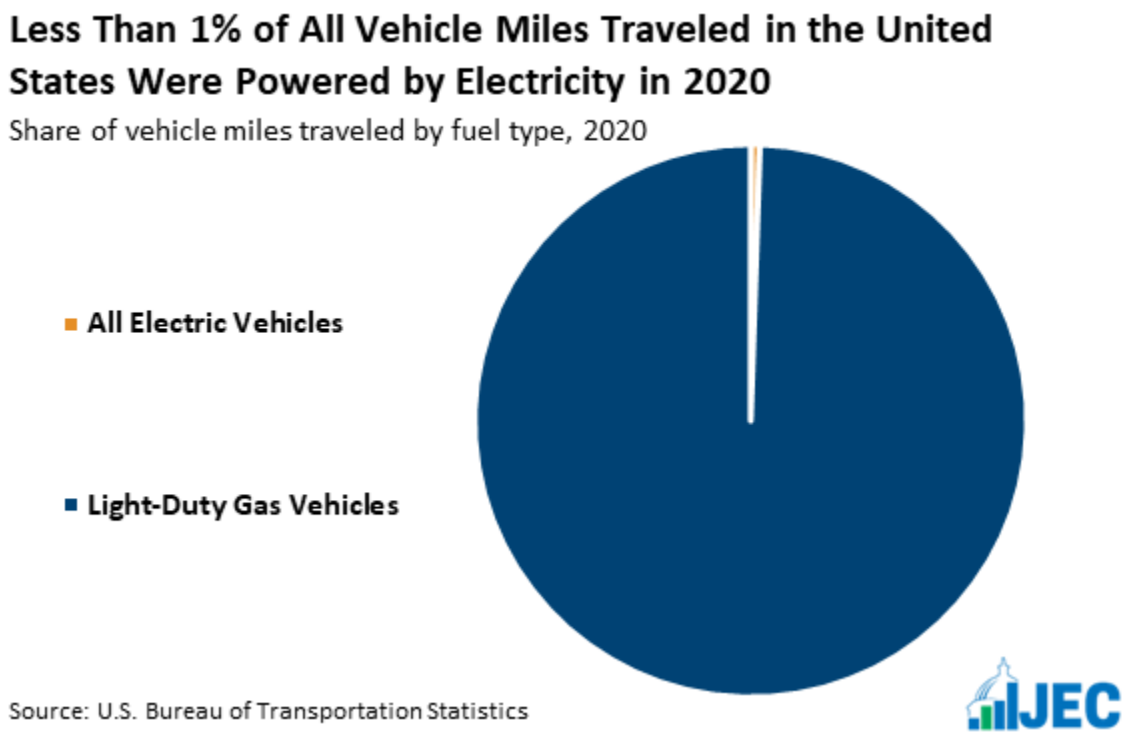



The price of every gallon of gas follows from global markets, leaving U.S. drivers vulnerable to price

fluctuations resulting from events outside U.S. borders. The same is not true of electricity, which is primarily produced domestically and heavily price regulated. Transitioning from gas-powered to electric vehicles, therefore, stands to provide significant emissions benefits, while also contributing to the United States' energy independence.

However, to maximize their benefits, EVs must replace miles that would have otherwise been traveled by a less clean vehicle. To date, the effects of increased EV use on emissions have been small because they still cover a relatively small share of the total miles driven in the United States. Emission reductions are a function of how much a vehicle is used–or miles traveled–rather than sales, and the more a gasoline-powered car is driven, the more gas it burns and the more it emits. Research has found that vehicle miles traveled continue to be highest for fossil-fueled vehicles that are used for big mileage events, like long-haul truck routes.

Unfortunately, many of today's electric vehicles, particularly passenger vehicles, spend much of their time as "garage princesses" parked at home, rather than actively in use. In order to remove the most carbon from ongoing transportation emissions, the immediate goal should be converting the greatest number of *miles driven by gasoline powered vehicles* to miles driven by zero-emission vehicles, as opposed to setting goals based on the number of electric vehicles sold or in circulation. This would not only cut carbon emissions from transportation, arguably the dirtiest part of the economy, but would also provide significant returns in terms of energy independence.

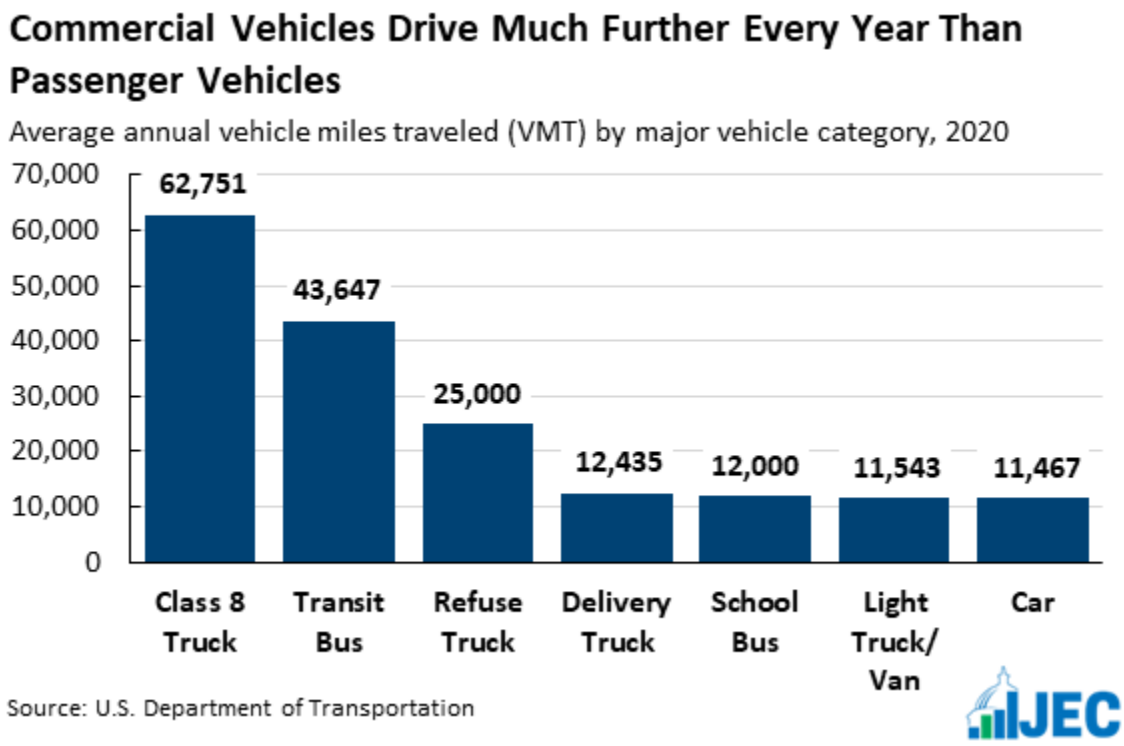



Policies that promote electrifying commercial vehicles, which drive the largest share of total

miles driven, are key to rapidly cutting transportation emissions. Thus far, policy has focused on getting electric vehicles to market, with incentives to purchase traditional cars powered by electricity, which are often families' secondary cars. While this strategy has successfully grown the electric vehicle market overall, these incentives have not yet converted the large number of *miles driven by gasoline-powered vehicles* to miles driven by zero-emission vehicles. Prioritizing the electrification of commercial vehicles would accelerate emissions reductions most efficiently, as commercial vehicles spend more time in motion, travel more miles overall and use significantly more fuel than household cars and trucks.

Converting commercial vehicle fleets to EVs has additional benefits which are less well-known. For example, electric engines are more efficient than gasoline engines. They do not require oil changes and have fewer moving parts whose maintenance could require downtime. Because they do not run on gasoline or diesel, fluctuations in gas prices have less impact on businesses' bottom lines.

Owners of passenger EVs, which do not travel as far and require less fuel than commercial vehicles, typically spend 60% less on fuel costs than gas-powered car drivers. These savings would likely be greater for commercial vehicles because they travel greater distances and consume far more gas.

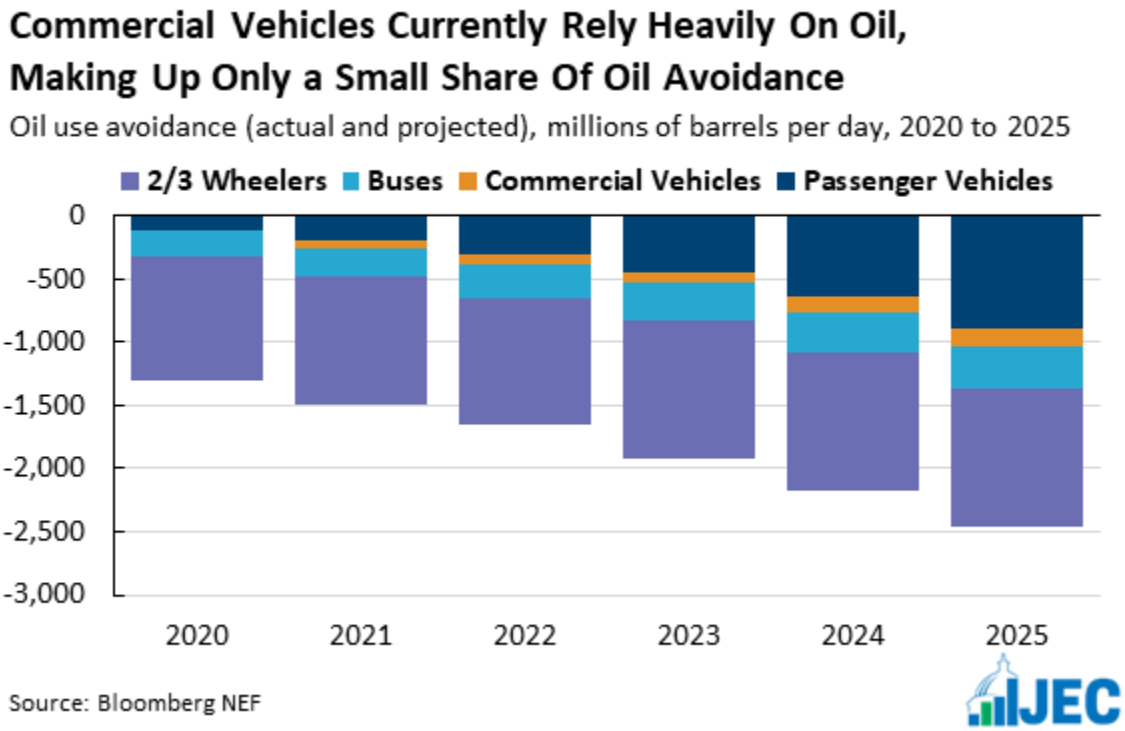



New incentives to subsidize commercial EV sales would be a powerful tool. The bipartisan infrastructure law contains a notable example of commercial-vehicle-focused funding–investing

$5 billion towards electrifying school buses. The Inflation Reduction Act would also add an additional $1 billion to those investments.

These new incentives are especially helpful for small businesses and organizations, like school districts, that are more likely to struggle to afford new equipment and would benefit from lower long-term energy costs. Studies show that organizations that chose to transition their fleets to electric vehicles are responsive to financial incentives (from government subsidies and cost savings over time), as well as the environmental and reputational benefits of conversion.

There are significant opportunities for additional federal EV incentives to reduce emissions and increase energy independence. In 2020, privately-owned commercial EVs were responsible for less than 1% of the savings in fuel—in other words, fuel that was not used but would have been had the same trips been powered by conventional vehicles. In comparison, passenger EVs (EVs that replace typical family cars and which generally do not travel as far) were responsible for 9% of avoided oil use. New federal incentives that include commercial EVs would boost overall decreases in oil use without forgoing trips (also called "oil avoidance").




***The federal government will lead the way by investing in EVs for USPS and implementing other policies to incentivize the electrification of commercial vehicles***

At the beginning of 2022, Postmaster General Louis DeJoy announced that the U.S. Postal Service planned to purchase 165,000 new delivery trucks over the next ten years. However, only

10% of that acquisition would have gone to the purchase of electric vehicles while the remaining 90% would be of gas-powered vehicles that get 8.6 miles per gallon. In a reversal, USPS has promised that at least 40% of its new delivery fleet will be electric, a share significantly lower than the 98.5% of routes the USPS Office of Inspector General estimates could be covered by commercial EVs. The Inflation Reduction Act moves policy even further toward electrifying USPS by investing $3 billion in USPS electric vehicle purchases and charging infrastructure.

The USPS, which holds one-third of the federal vehicle fleet, can dramatically outperform previous commitments to transition to electric vehicles and set the standard for speedy commercial fleet electrification. According to a recent report from the USPS Office of Inspector General, 98.5% of USPS routes could be covered by EVs along with significant operational advantages. Going above and beyond 40% EVs would dramatically decrease fuel and maintenance costs, insulate USPS from fossil fuel prices and reduce USPS emissions three-fold—all of which would save USPS money over the long term. It also insulates USPS from potential declines in the resale market for gas-powered trucks.

In addition to prioritizing the electrification of its own fleet, the federal government should incentivize the electrification of commercial vehicles to reap the swiftest climate benefits. Legislation to incentivize commercial EV purchases at market-moving scale (like the $1 billion for zero-emissions truck and bus purchases and more than $3 billion in commercial EV tax credits included in the IRA) would help businesses transition away from higher-cost fossil fuels, accelerate the creation of national EV infrastructure for private vehicles, reduce dependence on foreign oil (especially Russian diesel fuel) and offer outsized gains for climate and public health.