

MEMO Published August 27, 2021 · Updated September 8, 2021 · 5 minute read

Scaling Electric Vehicles in the U.S.: A Federal Investment in Jobs and Clean Transportation





Ellen Hughes-Cromwick
Senior Resident Fellow for Climate and Energy
Program

©EllenHughesCrom



Alexander Laska

Senior Policy Advisor for Transportation, Climate and Energy Program

y <u>@ThirdWayEnergy</u>

Takeaways

On August 5th, President Biden issued an executive order for the United States to reach 50% light duty electric vehicle ¹ (EV) sales by 2030. Electric vehicles offer multiple advantages over gas-powered vehicles, and as we <u>wrote</u> in 2019, the US is already moving toward EVs. It still, however, lags behind global competitors like the E.U. and China in terms of EV production and charging infrastructure. Today the U.S. is at 4% EV sales and is projected to reach around 20% EV sales by 2030 under "business as usual." Our goal is to help make sure these vehicles are made in the U.S. and most importantly designed and built by American companies with union workers.

Congress should invest \$112 billion in tax incentives in reconciliation, paired with \$5 billion already included in the Bipartisan Infrastructure Deal to accelerate the U.S. transition to EVs. These investments are critical to protecting more than 1 million American auto jobs and the vitality of American auto manufacturing, building EV charging stations in every part of the U.S, creating new supply chains, retooling manufacturing facilities, and increasing consumer demand.

Jobs, Climate and Health Benefits

The EV policy provisions could protect 1 million well-paid, American jobs, including over 200,000 jobs in the 50 automotive assembly plants, as well as over 500,000 supplier jobs. A recent study in *GeoHealth* estimates that just going to 50% EV sales could prevent "hundreds-to-thousands of premature deaths while also reducing CO2 emissions by hundreds of millions of tons." Getting to 50% EVs by 2030 could provide over \$400 billion ² in climate and public health benefits over a 10-year period. The move to electrified transportation also represents a moral imperative: People of color are three times more likely to live in counties most impacted by pollution as compared to whites due to the historic practice of redlining that continues to have disproportionate economic and health impacts today.

What's in the Bipartisan Deal?

The BID includes \$5 billion for EV charging. Federal funding will cover 80% of the costs for equipment and installations of EV charging stations. Including the 20% private share of the costs, we estimate that this will support the installation of over <u>400,000 new chargers by 2030</u>. These chargers should be accessible for all types of EVs and in public places with software apps to find them.

The BID also includes over \$7 billion to support the development of manufacturing of batteries, the core of an EV, in the U.S. This includes \$6 billion in grants for battery materials processing and battery manufacturing. Building and growing a battery industry in the U.S. will bring 60,000 new jobs ³ here and, in turn, foster more jobs in communities where these manufacturing facilities are located.

What do EVs need in the upcoming reconciliation package?

The upcoming reconciliation package should include a trio of tax credits that together will support more charging infrastructure, accelerate consumer demand, and expand domestic manufacturing. These incentives should be funded at about \$112 billion.

- 1. Support more charging infrastructure by extending the 30C tax credit: This credit helps people install chargers in their homes and helps businesses install chargers at workplaces and in public charging locations. The credit cap should be lifted for businesses, and the credit should be changed from a per-location basis to a per-charger basis. These improvements will particularly help build out EV charging at commercial fleet depots and other workplaces and in multi-unit dwellings. Together with the BID funding, this credit would help ensure over 1 million new chargers by 2030, the target necessary to support 50% EV sales by 2030. The estimated 10-year price tag is \$2 billion.
- 2. Increase consumer demand by expanding the 30D tax credit and removing the cap: The cap should be removed for every automaker and for all types of new and used EV buyers. Making this purchase incentive available to all buyers of EVs with price tags of \$80,000 and below will help to fill up U.S. assembly plants, incentivize a growing EV supply chain, and enable U.S. companies to compete with imported EVs. We recommend that the full \$7,500 tax credit be available up front at point-of-sale, with additional credits for purchases of American-made vehicles as well as those made in union plants. These credits could phase down as the market reaches 50% EV penetration. The estimate 10-year price tag is in the range of \$100 billion.
- 3. Help automakers retool their facilities for EVs by reinstating the 48C manufacturing tax credit: 48C is a proven tool to build new manufacturing facilities and expand existing facilities to produce clean energy technologies. The credit would provide funding for factory retooling to make EVs and EV parts, as well as incentives to domestically manufacture a variety of clean energy technologies. The estimated price floor for 48C is \$8 billion, as included in the BID. Additional funding is needed for battery cell production and accelerating the EV and clean manufacturing transition. EV manufacturing alone would require around \$10 billion, including \$1 billion for auto plant retooling and \$9 billion for battery cell manufacturing. 4

Conclusion

Budget Reconciliation and the Bipartisan Infrastructure Deal offer a very rare opportunity for the U.S. to ensure that an industry fundamental to American employment, innovation, and our economy, can thrive well into the 21 st century, while also reducing damage to public health and the environment. An investment of \$112 billion in tax incentives in reconciliation, and \$5 billion in the Infrastructure Deal could make this happen. It is critical that Congress seizes this opportunity.

TOPICS

CLEAN TRANSPORTATION 85

ENDNOTES

- **1.** Electric vehicles include cars and light-duty plug-in electric (PHEV) and battery electric vehicles (BEVs).
- **2.** GeoHealth study estimated \$17-70 billion of annual benefits for a 25-75% EV penetration. This Third Way estimate took the mid-point of this range and multiplied by 10 to get a 10-year period estimate.
- **3.** Source: SAFE and Roland Berger. Includes jobs in battery cell, module, and pack manufacturing as well as other EV components such as electric motors.
- 4. Another financing tool to help automakers and their suppliers switch to EVs is the Advanced Technology Vehicle Manufacturing (ATVM) loan program, which has been <u>instrumental in developing the U.S. EV industry</u>. The BID would expand ATVM eligibility beyond light-duty cars and trucks to include medium- and heavy-duty trucks, locomotives, aircraft, and more. Third Way recommends providing \$2 billion to supplement credit subsidy cost for these newly eligible categories, which would unlock \$6-8 billion in new lending authority for the program.