Policies Supporting EV Battery Improvements

Infrastructure Investment and Jobs Act of 2021

Efforts supported by the Infrastructure Investment and Jobs Act that are relevant to improving battery technologies include:

- Battery and Critical Minerals Mining and Recycling Grant Program ($125 million)
- Earth Mapping Resources Initiative ($320 million)
- U.S. Geological Survey's Energy and Minerals Research Facility ($167 million)
- Rare Earth Elements Demonstration Facility Program ($140 million)
- Battery Materials Processing and Battery Manufacturing Recycling ($2.8 billion)
- Electric Drive Vehicle Battery Recycling and 2nd Life Apps Program ($200 million)
- Advanced Energy Manufacturing and Recycling Grant Program ($750 million)
- Future of Industry Program – Industrial Research & Assessment Centers ($550 million)

CHIPS and Science Act

Passed in August 2022, the CHIPS and Science Act will fund American semiconductor research, development, and production to help decrease U.S. reliance on China for the semiconductors used in EVs and other technologies. Investments in advanced manufacturing and materials research and development total $2 billion.

Inflation Reduction Act of 2022

The IRA provides a $7,500 tax credit for EVs if they meet certain criteria and 60% of the vehicle is manufactured in the U.S. This credit increases to 100% by 2029. The IRA:[1] [2] [3]

- Extends and expands the Qualifying Advanced Energy Project Credit ($10 billion)
- Establishes the Advanced Manufacturing Production Tax Credit ($30.62 billion)
- Enhances use of Defense Production Act of 1950 ($500 million)
- Expands Advanced Technology Vehicles Manufacturing Direct Loan Program ($3 billion)
- Creates the Domestic Manufacturing Conversion Grants ($2 billion) and Clean Heavy-Duty Vehicle Program ($1 billion)
- Encourages EV purchases through the Clean Vehicle Tax Credit by providing up to $7,500 if consumers buy a new qualified plug-in EV or fuel cell EV.
- Strengthens domestic EV supply chains by requiring that critical minerals be extracted or processed in the U.S. or a Free Trade Agreement country, or recycled and with final assembly in North America.

[1] The EV Battery Supply Chain Explained. RMI. May 5, 2023.

[2] Buh-Bye, Conflict Minerals: US Gets First Sodium-Ion Battery Factory. CleanTechnica. May 2024.

[3] Three battery technologies that could power the future. Saft. Undated.

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