Outlook for Electric Vehicle Sales Under the Inflation Reduction Act

Implications for Auto Finance

July 12, 2023

The Fifth Biennial Conference on Auto Lending
Federal Reserve Bank – Philadelphia
The Future Is Electric

With the right complementary policies in place, the auto industry is poised to accept the challenge of driving EV purchases to between 40 and 50 percent of new vehicle sales by the end of the decade.

-Auto Innovators (Aug. 5, 2021)

- $115+ Billion in U.S. Investment by autos and battery partners since 2017
- $1.2 Trillion Global EV Investment by 2030
- Battery manufacturing capacity set to grow 424% by 2025

https://www.autosinnovate.org/posts/communications/The%20Future%20Is%20Electric%20Infographic
What are customers buying?

Powertrain Market Share
- ICE/Hybrid
- EV

EV Market Share
- BEV
- FCEV
- PHEV

EV Model Availability
97 Vehicle Models Sold in Q1 2023:
- 55 Battery Electric Vehicles
  - 20 Cars
  - 29 Utility Vehicles
  - 4 Pickups
  - 2 Vans
- 40 Plug-in Hybrid Vehicles
  - 14 Cars
  - 25 Utility Vehicles
  - 1 Van
- 2 Fuel Cell Electric Vehicles
  - 1 Car
  - 1 Utility Vehicle

See more information about EV Choice Here

Vehicle Affordability

Transaction Prices By Segment

[Chart showing transaction prices by segment for different types of vehicles: Electric Vehicle, Hybrid/Alternative Energy Car, Subcompact Car, and Industry Average. The chart includes data from June 2021 to March 2023, with price ranges from $0 to $70,000.]
Outstanding IRA Guidance & Questions
Clean Commercial Vehicle Credit ($7,500)

• 30D tax credit is effectively a consumer tax credit wrapped in industrial policy

• Early 2023 was the “high water mark” for eligible vehicles
  • 43% - or 39 out of 91 EVs for sale in the U.S. were eligible for $7,500 30D tax credit

• As of July 5\textsuperscript{th}, just 18 vehicles qualify for all or half of the $7,500 tax credit (30D)

https://fueleconomy.gov/feg/taxcenter.shtml
Inflation Reduction Act

30D: Clean Vehicle Credit
- Foreign Entity of Concern
  - Jan. 2024 – Battery Components
  - Jan. 2025 – Critical minerals

Transfer Authority to Qualified Dealers
- Jan. 2024

45X: Advanced Manufacturing Production Credit (2023-2032)
- How will Treasury implement the Battery Credit?
  - $35 per kWh cells
  - $10 per kWh battery module (>7 kWh)
State and Federal Regulatory Outlook

- CA ZEV
- EPA Greenhouse Gas/Criteria
- DOT Corporate Average Fuel Economy (CAFE)
California ACC II – ZEV* Mandate

* ZEV includes PHEV, BEV, and FCEV
** See: https://www.autosinnovate.org/resources/electric-vehicle-sales-dashboard
ZEV States (~ 35% of U.S. Market)

States that have adopted ACC II
- CA  OR
- MA  VT
- NY  WA

9 ZEV States*
- CO  NJ  VA*
- CT  NM
- MD  RI
- DC  DE

These states must adopt ACC II or they revert to Federal standards.
EPA Proposed GHG and Criteria Standards (MY27-32)  
Projected U.S. Fleet Average GHG & BEV

- Publicly released April 12th
- Published in Federal Register on May 5th
- 60-Day Comment Period closed July 5th

<table>
<thead>
<tr>
<th>MY</th>
<th>Combined GHG Car/Truck**</th>
<th>% Stringency Increase</th>
<th>Projected BEV Car/Truck</th>
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<tbody>
<tr>
<td>2026*</td>
<td>186</td>
<td>10%*</td>
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<tr>
<td>2027</td>
<td>152</td>
<td>18%</td>
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<td>9%</td>
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<tr>
<td>2032</td>
<td>82</td>
<td>11%</td>
<td>67%</td>
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* Part of 2022-26 Standards – 10% is the largest increase in 2022-26 timeframe.

** Current GHG emissions ~ 230 g/mile
EPA Proposed GHG Alternatives (BEV Ratio)

- EPA asked for comment on 3 alternatives
  - More stringent
  - Less stringent
  - Slower ramp in early years

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<thead>
<tr>
<th></th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>2031</th>
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<tr>
<td>Alternate 3</td>
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<td>45%</td>
<td>50%</td>
<td>55%</td>
<td>62%</td>
<td>68%</td>
</tr>
</tbody>
</table>

* Includes California ZEV mandate impacts. May differ slightly from “headline” values due to state-specific distribution requirements.
ALLIANCE FOR AUTOMOTIVE INNOVATION

Transforming Personal Mobility

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