What policy approaches are available to spur the used BEV market?

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The used market provides an opportunity for more affordable BEVs

A growing sale of new BEVs will increase their availability in the used market in about 4-5 years.

There are significant differences between new and used vehicle buyers – new vehicle buyers are generally more affluent than used vehicle buyers

> In Germany, the average income of new car buyers is about €58,000, €12,000 higher than the German average

> The average income gap between new and used car buyers is €13,000

Different incomes between new and used vehicle buyers are linked to many other factors, also impacting the used BEV market.

Households with lower incomes:
- tend to buy less expensive and older vehicles
- own fewer vehicles per household
- drive less kilometers per year with their car
- are more likely to live in multifamily homes rather than detached homes
- are less likely to access a garage

Used electric vehicle buyers have greater barriers than new buyers due to lower income

> In the Netherlands, 14% of households owning a used electric vehicle have an average or below average income; it is 6% of new electric car owners.

In addition, used electric vehicle buyers have greater barriers than new buyers due to limited charging availability.

- In Germany, 67% of new and 41% of used car buyers can park their own car in a garage/underground car park thus having potential access to home charging.
- 17% new versus 39% used car buyers park on the street.

Taking the differences between new and used car buyers/owners, various policy approaches can help to support the used BEV market

<table>
<thead>
<tr>
<th>Type</th>
<th>Objective</th>
<th>Action</th>
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<tbody>
<tr>
<td>Pilot projects</td>
<td>Raise awareness and increase purchases of ZEVs in used vehicle-buying households</td>
<td>Develop small-scale initiatives to support used ZEVs (e.g., rebates, loan assistance, scrappage, charging installation, non-fiscal perks)</td>
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<td>Identify metrics and track effectiveness of projects</td>
<td>Conduct surveys, focus groups, and community engagement before and after pilots to understand barriers for prospective used ZEV drivers</td>
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<td>Collect, share, and track data on used ZEV receptiveness, transactions, charging access, charging behavior, prices, annual and lifetime mileage, and functionality (e.g., vehicle range, battery state-of-health)</td>
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<td>Assurance provisions</td>
<td>Increase consumer confidence in buying used ZEVs</td>
<td>Require vehicle-specific transparency and certification regarding battery state-of-health over vehicle lifetime</td>
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<td>Ensure high vehicle lifetime and maximize zero-emission miles per vehicle</td>
<td>Incorporate ZEV durability and charging standardization provisions in regulations and government support programs</td>
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<td>Encourage greater durability, repairability, and warranty coverage by publishing transparent data on government ZEV fleets, conventional vehicle maintenance and repair costs, and battery state-of-health as ZEVs age</td>
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<td>Purchasing support</td>
<td>Make used ZEVs less costly than used conventional vehicles</td>
<td>Provide incentives and loan support where ZEVs are more expensive than conventional vehicles and where purchase support is essential, based on pilot projects and ZEV purchasing behavior surveys</td>
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<td>Further target used ZEV incentive support to lower-income individuals and areas with low ZEV uptake and poor air quality</td>
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<td>Charging Infrastructure</td>
<td>Ensure access to home and public charging in low income and rural areas</td>
<td>Develop strategies (e.g., utility investments, local building codes) that prioritize investments and affordable charging prices in multifamily homes and public locations for underserved ZEV markets</td>
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<td>access</td>
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<td>Apply information from pilot projects and data tracking to target support where used ZEV charging is most critical</td>
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<td>Awareness and education</td>
<td>Increase awareness of and receptiveness to purchasing used ZEVs</td>
<td>Conduct public-private consumer awareness campaigns, and dealership training, publish data on used ZEVs, and perform community-based outreach</td>
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<td>Target awareness activities based on data tracking regarding the top barriers of used ZEV durability, cost, charging, etc.</td>
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Some governments offer incentives for used BEV purchases and leases for private individuals at the point of sale.

**France:** €1,000

**Germany:** €3,000

**Netherlands:** €2,000

> Incentive amounts are not necessarily comparable as eligibility criteria differ (beneficiaries, vehicle age, holding period after purchase, etc.), applicable in 2023.

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**NUMBER OF SUBSIDIZED NEW AND USED BEVS IN THE NETHERLANDS (BASED ON ALLOCATED YEARLY GOVERNMENT BUDGET)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Subsidized new BEVs</th>
<th>Subsidized used BEVs</th>
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<tbody>
<tr>
<td>2020</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>2021</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>2022</td>
<td>2,000</td>
<td>2,000</td>
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<tr>
<td>2023</td>
<td>2,500</td>
<td>2,500</td>
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Sources:
Some governments make these incentives dependent on income

- **California (U.S):** The Clean Vehicle Assistance Program offers a grant for electric vehicle purchases up to **$7,500 (€7,000)** and up to **$2,000 (€1,800)** for home charging facilities, dependent on household income and living in a disadvantaged community (area burdened by e.g., poverty, high unemployment, etc.)

- Dashboard with information about grants and demographics of grantees (income, number of people per household, age, home ownership)
  

Between mid-2018 and end-2022
- almost 2,800 grants awarded for new BEVs ($13.9 million)
- almost 700 grants awarded for used BEVs ($3.5 million)
In addition, policies such as social leasing or e-carsharing could increase the affordability of BEVs or access without the financial burden of car ownership.

*France:* The government plans to introduce a new so-called “social BEV leasing program” at the end of 2023/beginning of 2024. It implies that “those who need it most” should be able to lease a BEV for €100 per month.

*Various cities in California (U.S.):* Community-based programs including stations across low- and middle-income neighborhoods with discounted membership and trip costs for people with lower incomes.

Conclusions

> The used BEV market offers an important opportunity to expand access to BEVs to a greater population of drivers beyond new BEV drivers

> As the used BEV market is still in its nascent stage, it is important for governments to track, understand, and support the growing used BEV market, also for targeted policies including incentives, charging infrastructure, and information campaigns

Questions?
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