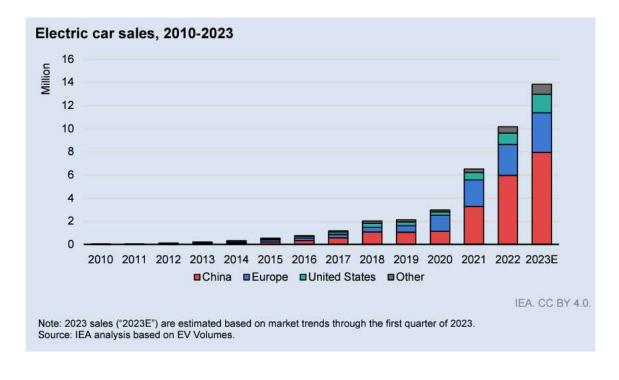
What policy approaches are available to spur the used BEV market?

Dr. Sandra Wappelhorst Webinar "What do we know about used BEVs" by Transport & Environment May 11th, 2023

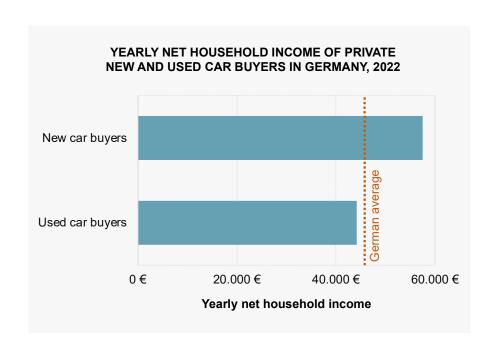


The used market provides an opportunity for more affordable BEVs



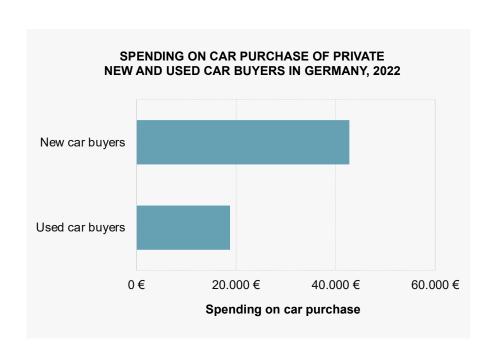
 A growing sale of new BEVs will increase their availability in the used market in about 4-5 years

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

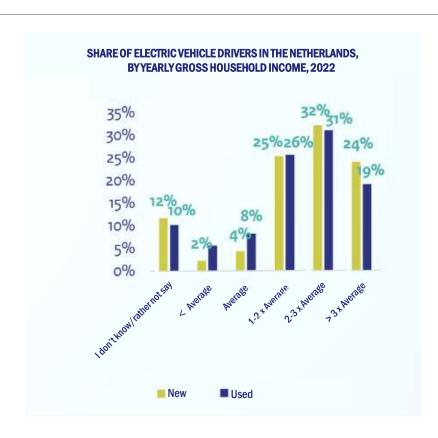
Different incomes between new and used vehicle buyers are linked to many other factors, also impacting the used BEV market



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

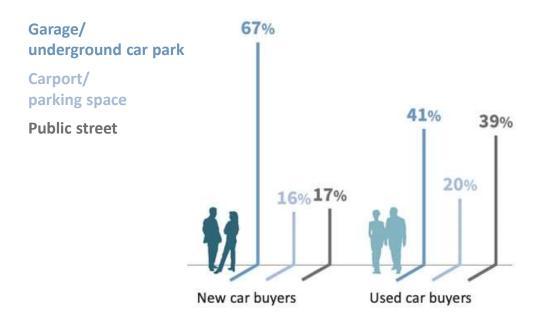
Used electric vehicle buyers have greater barriers than new buyers due to lower income



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

Source: Adapted based on Association of Electric Drivers (2023), "Het Nationaal EV en Berijdersonderzoek 2022 [The National EV and Driver Survey 2022], https://www.evrijders.nl/berijdersonderzoek2022

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



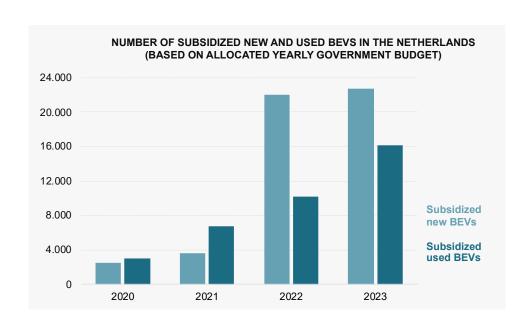
- > In Germany, 67% of new and 41% of used car buyers can park their own car in a garage/underground car park thus having potential access to home charging
- > 17% new versus 39% used car buyers park on the street

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

Type	Objective	Action
Pilot projects	Raise awareness and increase purchases of ZEVs in used vehicle-buying households Identify metrics and track effectiveness of projects	Develop small-scale initiatives to support used ZEVs (e.g., rebates, loan assistance, scrappage, charging installation, non-fiscal perks)
		 Conduct surveys, focus groups, and community engagement before and after pilots to understand barriers for prospective used ZEV drivers
		 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)
Assurance provisions	Increase consumer confidence in buying used ZEVs	Require vehicle-specific transparency and certification regarding battery state-of-health over vehicle lifetime
		Incorporate ZEV durability and charging standardization provisions in regulations and government support programs
	Ensure high vehicle lifetime and maximize zero- emission miles per vehicle	Encourage greater durability, reparability, 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
Purchasing support	Make used ZEVs less costly than used conventional vehicles	 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
		Further target used ZEV incentive support to lower-income individuals and areas with low ZEV uptake and poor air quality
Charging Infrastructure access	Ensure access to home and public charging in low income and rural areas	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
		 Apply information from pilot projects and data tracking to target support where used ZEV charging is most critical
Awareness and education	Increase awareness of and receptiveness to purchasing used ZEVs	Conduct public-private consumer awareness campaigns, and dealership training, publish data on used ZEVs, and perform community-based outreach
		 Target awareness activities based on data tracking regarding the top barriers of used ZEV durability, cost, charging, etc.

Source: Alexander Tankou, Nic Lutsey, Dale Hall (2021), "Understanding and supporting the used zero-emission vehicle market", ICCT White Paper, https://theicct.org/wp-content/uploads/2021/12/ZEVA-used-EVs-white-paper-v2.pdf

Some governments offer incentives for used BEV purchases and leases for private individuals at the point of sale



> France: €1,000

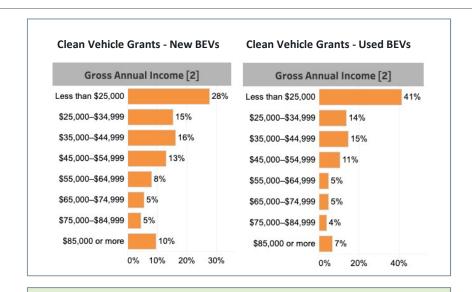
> Germany: €3,000

> Netherlands: €2,000

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

Sources: French Ministry of Finance, Economy and Industrial and Digital Sovereignty (9 Feb 2023), "Buying a vehicle: how does the ecological bonus work?", https://www.economie.gouv.fr/particuliers/bonus-ecologique#; German Federal Office of Economics and Export Control (2023), "Electromobility – submit an individual application", https://www.bafa.de/DE/Energie/Energieeffizienz/Elektromobilitaet/Neuen_Antrag_stellen/neuen_antrag_stellen.html; Netherlands Enterprise Agency (8 May 2023), "Subsidy for the purchase of a used electric passenger car", https://www.rvo.nl/subsidies-financiering/sepp/subsidie-koop-gebruikte

Some governments make these incentives dependent on income



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)

- > 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)

https://cleanvehiclegrants.org/program-data/

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

Aug 30, 2022 - 04:30 pm France preparing 100€/mth EV leasing scheme BEV FRANCE LEASING SUBSIDIES The French government is planning to subsidise electric vehicle leasing. Thanks to government support, all-electric vehicles could become available for as little as 100 euros per month. Bloomberg broke the news with reference to a television appearance by Minister Gabriel Attal. Such an EV leasing scheme would also follow an election promise by President Emmanuel Macron to offer a government-subsidised leasing program for low-income households. With that price, Attal said, leasing an electric vehicle would cost less than what most drivers spend a month on According to him, the government is currently working on the issues of how quickly the measure can be introduced and the availability of electric vehicles. Macron promised the subsidy program to counter criticism that EVs remain unaffordable for many despite subsidies, according to the report. France previously offered subsidies of up to 6,000 euros for purchasing electric cars costing less than 47,000 euros. Additional support for a scrappage scheme for old vehicles with internal combustion engines is available. According to Automotive News Europe, twelve per cent of new car sales in France in the first seven months of 2022 were purely electric. Still, he said that the prospect of buying or leasing an electric car remains out of reach for many French people. "We know they remain very expensive for many French people," Attal said Sunday. With reporting by Domenico Sciurti bloomberg.com, autonews.com Author: Nora Manthey Share article 🖪 💆 in

- > France: The governments 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

Sources: Nora Manthey (30 Aug 2022), "France preparing 100€mth EV leasing scheme", https://www.electrive.com/2022/08/30/france-preparing-100e-mth-ev-leasing-scheme/; Yasmina Yusuf, Madeline Brozen, Evelyn Blumenberg (2022), "Electric Carsharing Models for Low-Income Households in California", Policy Brief, https://escholarship.org/uc/item/21h5862d; Blink Mobility Co. (2023), "Electrifying Los Angeles One Ride At A Time", https://blinkmobility.com/

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? Contact s.wappelhorst@theicct.org



