

Unpacking Trump's EV Policy Overhaul

What will happen to EV adoption, emissions, and the fiscal balance?

Elaine Buckberg, Salata Institute for Climate and Sustainability at Harvard University

Cassandra Cole, Department of Economics, Harvard University

Updated September 29, 2025

This analysis represents the authors' views and do not represent official views of the Salata Institute or Harvard University.

What do potential federal EV policy changes mean for EV sales, for emissions, and for federal government spending?

Model the impact of the One Big Beautiful Bill Act (OBBBA) and other potential policy changes

Specifically, we model drivers' vehicle purchase choice and EV charging-station buildout

Estimate BEV share of new vehicle sales, EVs on the road, fiscal savings over FY2026-2035, carbon emissions.

OBBBA cuts 2030 EV share by 8.5 ppts, dominated by removal of EV tax credits (-6 ppts):

2030 EV sales share drops to 39.5% from 12/31/24 policy forecast of 48%.

Yields 97% potential fiscal savings, \$169 B, from reversing IRA/IIJA EV provisions.

If courts uphold the elimination of California's waiver to set tighter emissions standards, 2030 EV share falls to 38.1%.

No fiscal benefit.

Of potential additional policy changes, most damaging would be cutting NEVI spending on highway charging:

Lose another 4.2 ppts 2030 EV sales share.

Cutting federal policy support for EV adoption will slow, but not stall, EV sales growth.

Even removing *all* policies we model and adding a \$250/year EV fee, EV sales share climbs to 31.8% in 2030, 4x 2024's 8%.

Model limitations: Cannot model changes in fuel economy or emissions standards. No automaker supply dynamics.

May underestimate effects.



Policy Simulations

Scenarios

1. Baseline: 12/31/2024 policy
2. Remove all 3 EV tax credits 30D, 45W, 25E
3. Remove 30C – home and business charger credits
4. One Big Beautiful Bill Act (OBBBA) = 2+3

OBBBA and

5. Cap NEVI at FY2022-2024 approved plans (\$2.4B)
6. Eliminate California waiver
7. Remove 45X – battery manufacturing, critical mineral processing
8. Add \$250 annual federal fee

+ combinations

Outcomes reported

- EV sales penetration (2030)
- EVs on the road (registered, 2030)
- CO2 emissions
- Fiscal savings (undiscounted 10-year budget window)

Policies not modeled:

- EPA's GHG rules
- Changes in CAFE standards
- Tariffs
- State EV & charger incentives (held constant)

See final page for detailed assumptions.



Where we are

Scenarios

2. Remove all 3 EV tax credits 30D, 45W, 25E
3. Remove 30C – home / business charger credits
4. OBBBA = 1+2
5. Remove 45X – battery manu, crit. min. processing
6. Cap NEVI
7. Eliminate California waiver
8. Add \$250 annual federal fee

Status

OBBBA eliminates eff. 9/30/2025

OBBBA eliminates eff. 9/30/2025

Signed 7/4/2025

OBBBA adds restrictions

DOT froze; court ordered partial restoration

Elim. by Congressional Review Act vote

Dropped from OBBBA, could return



Where we are

Policies not modeled

EPA's GHG rules

Changes in CAFE standards

Tariffs

Status

EPA intends to eliminate by repealing the endangerment finding

OBBBA eliminated fines; DoT stated intention to ease or eliminate

Make new vehicles, inc. EVs, and chargers more expensive



Impact of the OBBBA

Scenario	2024	Eliminate		OBBBA ¹
	Baseline	EV credits	Charger credits	
2030 EV sales share	48.0%	42.0%	45.3%	39.5%
<i>Change, ppts</i>		-6.0	-2.7	-8.5
2030 EVs on the road (M)	30.8	26.3	28.1	23.8
<i>% Change</i>		-14.7%	-8.9%	-22.9%
Add'l 2030 emissions (mmt)		20.3	12.3	31.7
Fiscal savings 2026-2035 (\$B)		168.5	15.2	169.9
<i>per ppt 2030 sales share lost</i>		28.0	5.7	19.9
<i>per add'l mmt CO2</i>		8.3	1.2	5.4

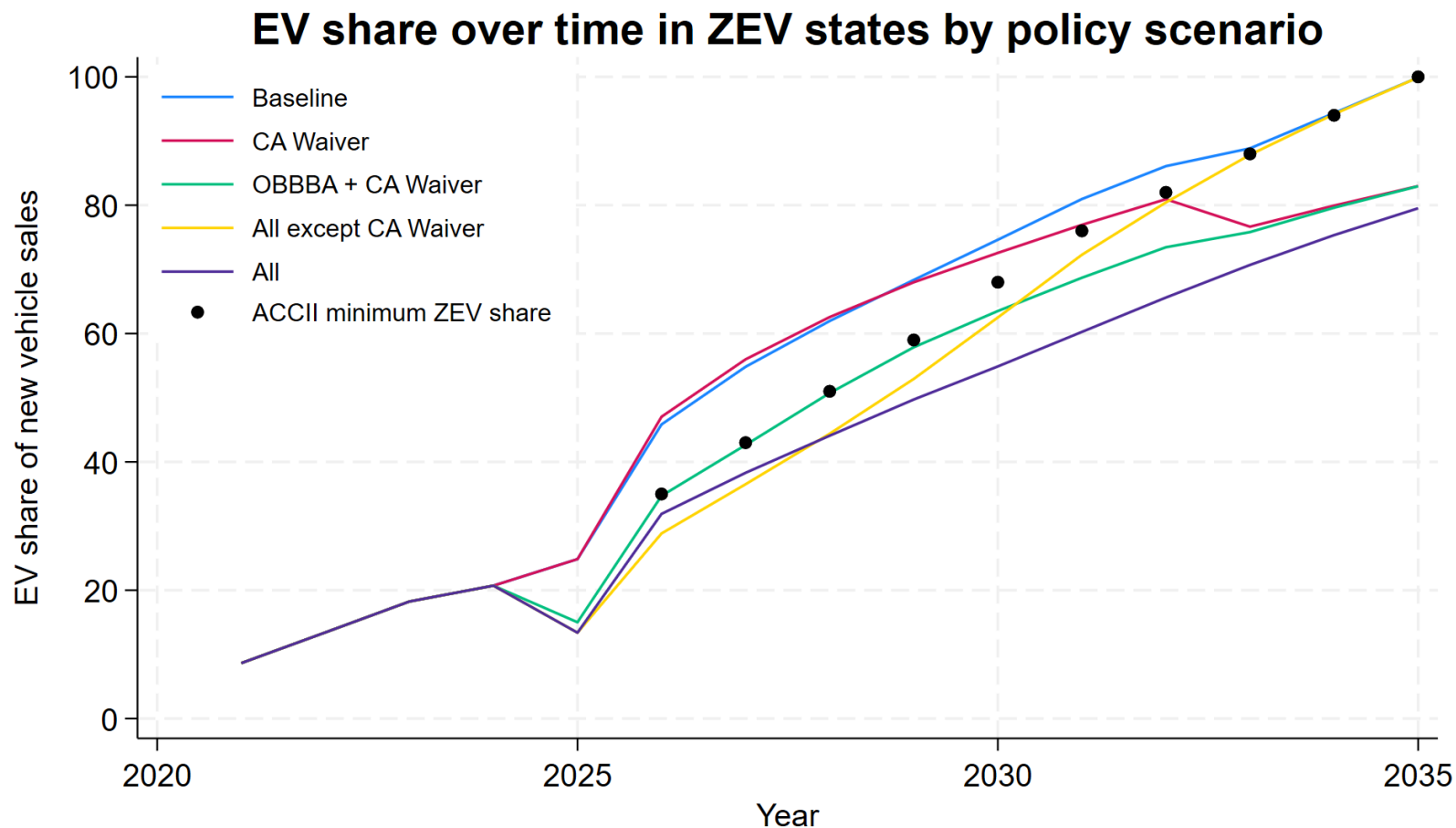


Potential policy changes added to OBBBA

Scenario	OBBBA	+ Eliminate			+ Add	All
		NEVI	CA Waiver	45X	EV fee	
2030 EV sales share	39.5%	35.3%	38.1%	38.0%	38.5%	30.8%
<i>Change, ppts</i>		-4.2	-1.4	-1.5	-1.0	-8.7
2030 EVs on the road (M)	23.8	22.0	23.8	22.8	23.1	20.2
<i>% Change</i>		-7.5%	-0.1%	-4.3%	-2.8%	-15.2%
Add'l 2030 emissions (mmt)		7.8	-0.1	4.5	3.0	15.7
Fiscal savings 2026-2035 (\$B)		2.9	0.0	0.0	59.7	54.6
<i>per ppt 2030 sales share lost</i>		0.7	0.0	0.0	59.4	6.3
<i>per add'l mmt CO2</i>		0.4	-0.3	0.0	19.7	3.5

The CA waiver alone had limited effect

Removing it *and* other EV policy support matters a lot



Key Takeaways

Policy impacts are more than additive

Key is the two-way network effect between vehicles and chargers

Each incremental price change → fewer EVs on the road → fewer chargers built → even fewer EVs

Making all proposed policy changes reduces 2030 sales share by 8.7 ppts, while sum of individual policy changes is only 8.1 ppts.

What is most cost-effective to retain, in terms of taxpayer dollars?

Most: Charger subsidies (NEVI, 30C), battery/critical mineral production credits, CA waiver

Least: vehicle subsidies

\$250/year EV fee would raise a lot of money with limited effect on sales, but far more than annual gas tax.



Appendix: Assumptions

Some of our assumptions

- Baseline calibrated to 48% EV sales share in 2030 (LDVs) under December 31, 2024 policy.
- Consumer clean vehicle credit: Effective average credit of \$4,317, accounting for buyer and vehicle requirements
- Commercial clean vehicle credit (lease loophole): 45% of EVs are leased; leased EVs receive an average discount of \$3000 (Allcott et al (2024))
- Used EV credit: Effective average credit of \$2,319
 - Assumes full credit accrues to original EV buyer 5 years later on resale, accounts for eligibility requirements
- Home charger credit: \$450 (30% of \$1500 home charger)
- 45X: 50% of credit value passed on to consumer
- NEVI: Remaining frozen funds = \$2.6B (\$2.4B has been obligated); no clawback
- Modeling assumptions:
 - CA waiver:
 - Two-region model, ZEV (CA + 11 Section 177 + DC) and non-ZEV
 - Tradeable ZEV credits within single ZEV region, all adopt CA ZEV schedule
 - No GEQ effects (no effect of policies on number of models, etc)

