2023 STATE TRANSPORTATION ELECTRIFICATION SCORECARD

Executive Summary

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ACEEE
Smart Energy. Clean Planet. Better Lives.

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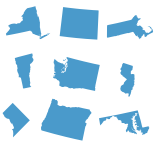
The transportation sector emits 28% of greenhouse gas (GHG) emissions in the United States.[1] Electric vehicles (EVs) can reduce emissions, improve air quality, and help achieve climate goals. However, EVs currently make up only 7% of new vehicle sales. U.S. states can remove barriers to EV adoption, support the market, and build charging infrastructure. This report evaluates state efforts to electrify transportation and ranks the top 33 states.

[1] "Greenhouse Gas Emissions; Sources of Greenhouse Gas Emissions." U.S. Environmental Protection Agency. Accessed October 1, 2020. epa.gov/ghgemissions/sources-greenhouse-gas-emissions.

Key Findings

California remains the national leader in transportation electrification policy, achieving the highest score for the second consecutive *Scorecard*. It excels in advancing equity, establishing electrification standards, and preparing the grid for increased EV sales.



The top 10 states, including New York, Colorado, Massachusetts, Vermont, Washington, New Jersey, the District of Columbia, Oregon, and Maryland, demonstrate strong performance in adopting Advanced Clean Cars II (ACCII) and Advanced Clean Trucks (ACT) policies, promoting transportation system efficiency, and optimizing the electricity grid for EVs.

Minnesota and Virginia stand out regionally for their grid optimization policies and planning efforts, respectively.

Oklahoma shows significant improvement in rankings, leading in per capita direct current fast chargers (DCFC) and investing in electric school buses. Colorado shows the most improvement in scores, particularly in grid optimization and accelerating heavy-duty (HD) EV adoption.

California and New York continue to prioritize equity in their transportation electrification policies, dedicating a significant portion of their EV programs to low-income and environmental justice (EJ) communities.

While the top 10 states perform well in EV planning and grid optimization, there is room for improvement in incorporating equity considerations. The next 20 states can enhance their EV planning through ACCII and ACT adoption and focus on sector-wide emissions reductions and electrification of transit and school buses.

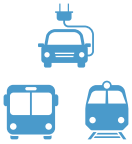
ACEEE's *State Transportation Electrification Scorecard* evaluates the progress that state legislatures and agencies are making to implement policies to scale up the deployment of light- and heavy-duty EVs and build out the necessary charging infrastructure for personal, commercial, fleet, and public transit use.

Policy Areas

The *Scorecard* evaluates states on their actions to support transportation electrification in the light-duty and heavy-duty sectors. States received points in the following policy areas, based on a 100-point scale:

Electric vehicle and EV charging infrastructure planning and goal setting (15 points):[2] government-led planning actions for transportation electrification as well as binding and nonbinding target setting for EV and charging infrastructure deployment

Incentives for EV deployment (36 points): financial and nonfinancial incentives to spur EV purchases and the installation of necessary charging infrastructure



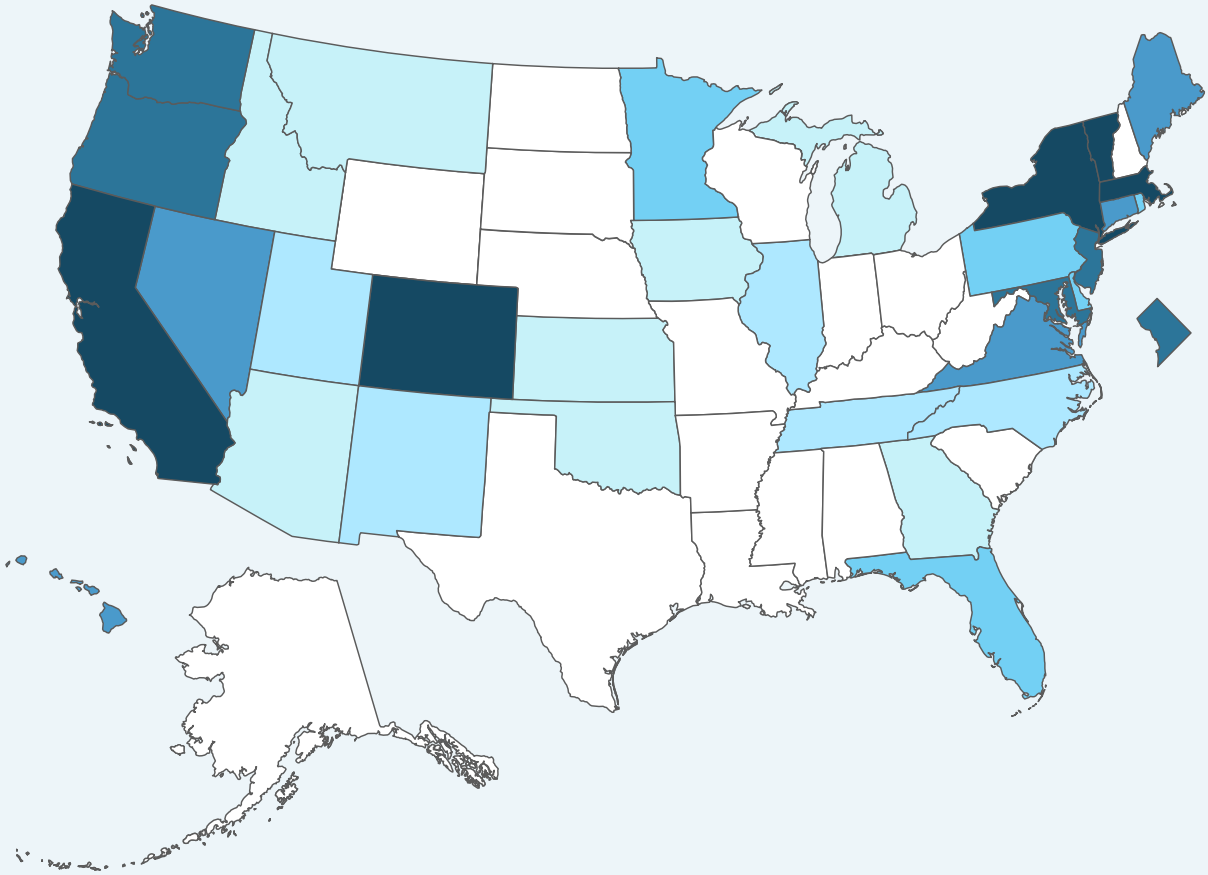
Transportation system efficiency (17 points): policies that support the deployment of EVs while maximizing emissions reduction and improving accessible, cost-effective, equitable, and clean mobility options for all

Electricity grid optimization (9 points): actions taken by public utility commissions to support utility management of EV charging to maximize reliability and minimize costs and GHG emissions

Transportation electrification outcomes (23 points): metrics that track progress or evaluate results on EV adoption, infrastructure installation, and GHG emissions

This year, the *Scorecard's* equity metrics were incorporated throughout the report, because addressing the needs of low-income, economically distressed, and EJ communities is fundamental to successful transportation electrification policy. Overall, the metrics and portions of metrics that addressed equity constituted 17.5 points.

[2] The *Scorecard* uses the terms *EV charging infrastructure* and *EV chargers* throughout the report. This infrastructure is also sometimes referred to as electric vehicle supply equipment.



1–5
1. California
2. New York
3. Colorado
4. Massachusetts
5. Vermont

6–10
6. Washington
7. New Jersey
8. District of Columbia
8. Oregon
10. Maryland

11–15
11. Maine
12. Connecticut
13. Nevada
14. Hawaii
15. Virginia

16–20
16. Pennsylvania
17. Delaware
17. Minnesota
19. Rhode Island
20. Florida

21–24
21. New Mexico
21. Illinois
23. Tennessee
24. Utah
24. North Carolina

26–33
26. Arizona
26. Michigan
28. Oklahoma
29. Idaho
29. Montana
31. Kansas
32. Georgia
33. Iowa

Unranked

Figure ES-1. State scores in the *State Transportation Electrification Scorecard*

Table ES-1 describes states that are leaders in the specific policy areas evaluated. For more information about leading states, refer to the *Scorecard* chapter corresponding to each policy area.

Table ES-1. Policy area leaders

Area	States	Achievements
Planning and goal setting	California, Oregon, and Washington	Developed or adopted California's Advanced Clean Cars II and Advanced Clean Trucks standards Require comprehensive transportation electrification planning by their utilities Adopted low-carbon fuel standards
Incentives for EV deployment	California, New York, and Massachusetts	Offer a wide range of incentives for EVs and EV charging infrastructure Considerable utility investment in charging infrastructure, including for low-income, economically distressed, and EJ communities Have low or no EV fees as well as nonfinancial incentives for EVs
Transportation system efficiency	California, Maryland, and the District of Columbia	Have transportation-sector GHG reduction goals Require the purchase of zero-emission transit buses by a target year and provide financial support for zero-emission transit and school buses
Electricity grid optimization	California, New York, Colorado, and Hawaii	Provide signals to effectively integrate EVs into the grid through time-varying Level 2 (L2) rates and DCFC-specific rates Set targets to reduce the emissions of the power sector
Outcomes	Vermont and California	Have strong per capita EV charging infrastructure deployment and light-duty and HD EV registrations

Policy Recommendations

States must take comprehensive planning measures, setting specific goals for EVs, charging infrastructure, and sector-wide GHG reduction. These goals should address different transportation modes and improve system efficiency.

Collect and make public data on EV adoption, charging infrastructure, and demographic information to track progress and establish baselines.

Prioritize equity by allocating funding for low-income and EJ communities in EV planning, tracking spending, and ensuring equitable distribution of benefits.

Utilize existing funding sources like Infrastructure Investment and Jobs Act (IIJA) and the federal Low- or No-Emission Program, and explore sustained funding options for EV programs.

Provide clear policy direction to encourage utility and third-party investment in EV charging infrastructure, exempting third-party providers from being defined as public utilities.

Involve communities early on, seek their input, build trust, and invest in their engagement capacity. Prioritize community participation in mobility assessments to guide investment decisions.

While all of the states and DC in our top 33 are making progress, there are varying approaches and plenty of room for improvement for many. **For states that are represented in our top 33 but are earlier in the process of developing a robust environment for transportation electrification, we recommend the following next steps to help accelerate their market and GHG reductions:**

Next steps for states in the top 33 include setting EV and charger deployment targets, adopting ACC II and ACT rules, providing incentives for EV purchases, and encouraging fair utility investments in charging infrastructure.

Establish clean energy targets for the electric industry to promote grid-scale decarbonization and reduce emissions from EVs.

Set GHG reduction goals for the transportation sector to complement EV deployment efforts.

Increase funding for underserved communities, aiming for Justice40's objective of directing 40% of benefits to underserved communities.

Engage communities throughout the planning process, invest in internal engagement capacity, and prioritize community participation in mobility assessments.