

50

STATES OF ELECTRIC VEHICLES

Q1 2023 Quarterly Report

Executive Summary



AUTHORS

Emily Apadula
Rebekah de la Mora
Justin Lindemann
Brian Lips
Vincent Potter
Autumn Proudlove

The [NC Clean Energy Technology Center](#) is a UNC System-chartered Public Service Center administered by the College of Engineering at North Carolina State University. Its mission is to advance a sustainable energy economy by educating, demonstrating and providing support for clean energy technologies, practices, and policies. The Center provides service to the businesses and citizens of North Carolina and beyond relating to the development and adoption of clean energy technologies. Through its programs and activities, the Center envisions and seeks to promote the development and use of clean energy in ways that stimulate a sustainable economy while reducing dependence on foreign sources of energy and mitigating the environmental impacts of fossil fuel use.

CONTACT

Autumn Proudlove (afproudl@ncsu.edu)

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PREVIOUS EDITIONS AND OTHER 50 STATES REPORTS

The full version of this report may be purchased [here](#). Previous executive summaries of *The 50 States of Electric Vehicles* are available for download [here](#).

In addition to *The 50 States of Grid Modernization*, the NC Clean Energy Technology Center publishes additional quarterly reports called *The 50 States of Solar* and *The 50 States of Grid Modernization*. These reports may be purchased [here](#). Executive summaries and older editions of these reports are available for download [here](#).

ABOUT THE REPORT

PURPOSE

The purpose of this report is to provide state and local lawmakers and regulators, electric utilities, the electric power industry, the transportation industry, and other energy stakeholders with timely, accurate, and unbiased updates about how states are choosing to study, adopt, implement, amend, or discontinue policies associated with electric vehicles. This report catalogues proposed and approved legislative, regulatory, and utility rate design changes affecting electric vehicles during the most recent quarter, as well as state and investor-owned utility proposals to deploy electric vehicles and charging infrastructure.

APPROACH

The authors identified relevant policy changes and deployment proposals through state utility commission docket searches, legislative bill searches, popular press, and direct communications with stakeholders and regulators in the industry.

Questions Addressed

This report addresses several questions about the U.S. electric vehicle landscape, including:

- How are states addressing barriers to electric vehicle and charging infrastructure deployment?
- What policy actions are states taking to support markets for electric vehicles and related infrastructure?
- How are utility companies designing rates and electric vehicle supply equipment companies designing charging equipment and controls to influence charging behavior of electric vehicle owners?
- Where and how are states and utilities proposing to deploy or pay for electric vehicles and electric vehicle charging infrastructure?

Actions Included

This report focuses on cataloguing and describing important proposed and adopted policy changes related to electric vehicles. For the purpose of this report, the definition of electric vehicle includes all-electric vehicles (EVs), hybrid electric vehicles (HEVs), and plug-in electric vehicles (PHEVs). In order to explore all policy actions related to electric vehicles, this report catalogs and describes actions related to the deployment of electric vehicle charging equipment, which is often referred to as electric vehicle supply equipment (EVSE). Additionally, the electric grid is impacted

by electric vehicle charging, so legislative and regulatory actions related to electric utilities are included in this report.

In general, this report considers an “action” to be a relevant (1) legislative bill that has been introduced, (2) executive order, or (3) regulatory docket, utility rate case, or rulemaking proceeding. Only statewide actions and those related to investor-owned utilities are included in this report. Specifically, actions tracked in this issue include:

Studies and Investigations

Legislative or regulatory-led efforts to study electric vehicles specifically, or electric vehicles as part of a broader grid modernization study or investigation.

Regulation

Changes to state rules related to electric vehicles, including registration fees, homeowner association limitations, and electricity resale regulations affecting vehicle charging.

Utility Rate Design

Proposed or approved changes to investor-owned utility rate design for electric vehicles, including new electric vehicle tariffs and significant changes to existing electric vehicle tariffs.

Market Development

New state policy proposals or changes to existing policies aimed at growing the electric vehicle market.

Financial Incentives

New state or investor-owned utility incentive programs or changes to existing incentive programs for electric vehicles and charging infrastructure.

State and Utility Deployment

Utility-initiated requests, as well as proposed legislation, to deploy electric vehicles or charging infrastructure.

Actions Excluded

While actions taken by municipal utilities and electric cooperatives are not comprehensively tracked in this report, particularly noteworthy or high-impact actions are included. The report also excludes actions related to grid modernization without an explicit electric vehicle component, as well as actions related to general time-varying rates not specific to vehicle charging; these types of actions are tracked in the 50 States of Grid Modernization report series.

EXECUTIVE SUMMARY

Q1 2023 ELECTRIC VEHICLE ACTION

In Q1 2023, 49 states plus DC and Puerto Rico took a total of 621 actions related to electric vehicles. Table 1 provides a summary of state and utility actions occurring during Q1 2023. Of the 621 actions catalogued, the most common were related to Regulation (171), followed by Financial Incentives (165), and Market Development (156). All 50 states, plus DC and Puerto Rico, took actions planning for National Electric Vehicle Infrastructure (NEVI) program funding distribution.

Table 1. Q1 2023 Summary of Electric Vehicle Actions

| Type of Action | # of Actions | % by Type | # of States |
|----------------------------|--------------|-------------|---------------------------|
| Regulation | 171 | 28% | 44 + DC, PR |
| Financial Incentives | 165 | 27% | 36 + DC |
| Market Development | 156 | 25% | 31 + DC, PR |
| Studies and Investigations | 51 | 8% | 27 + PR |
| Rate Design | 47 | 8% | 27 + PR |
| Deployment | 31 | 5% | 17 + DC |
| Total | 621 | 100% | 49 States + DC, PR |

Note: The “# of States/ Districts” total is not the sum of the rows because some states have multiple actions. Percentages are rounded and may not add up to 100%.

TOP ELECTRIC VEHICLE ACTIONS OF Q1 2023

Five of the quarter’s most notable electric vehicle actions are noted below.

Georgia and Utah Lawmakers Advance Electric Vehicle Charging Taxes

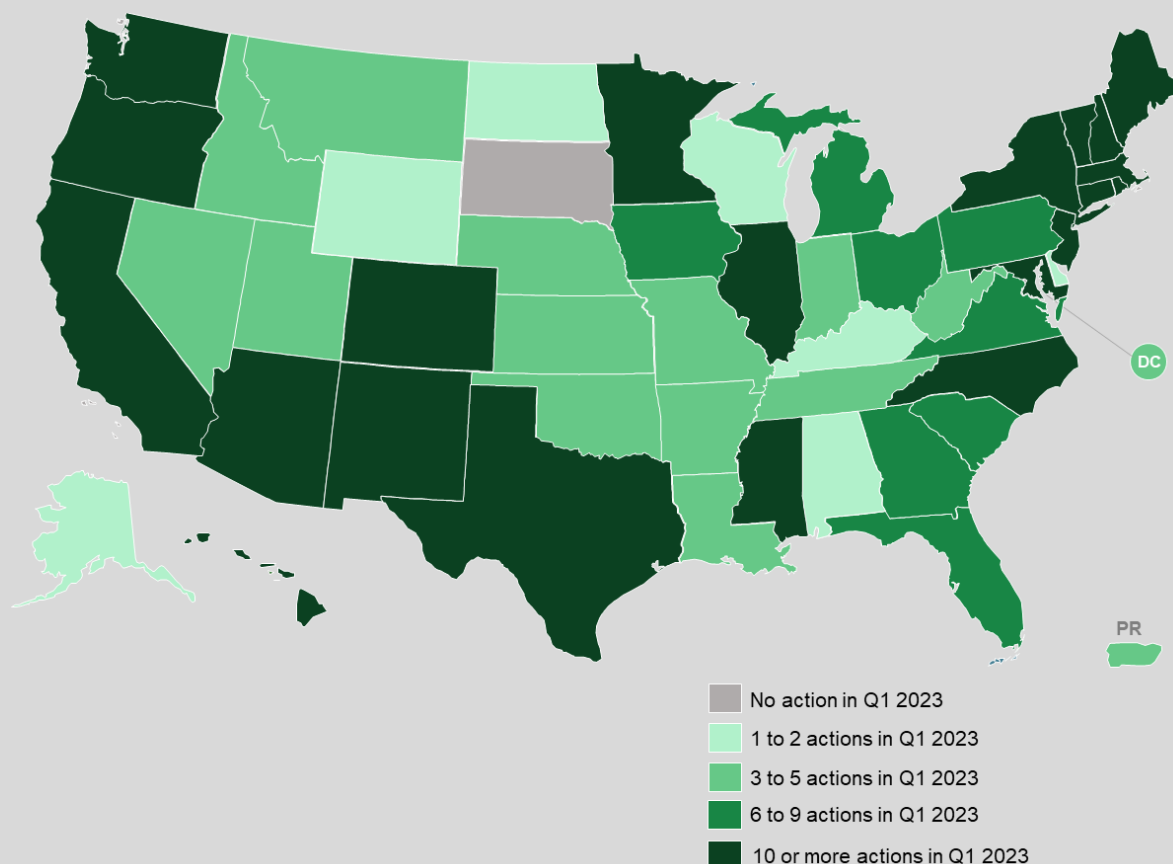
Georgia lawmakers passed a bill in March 2023 adopting a new tax on electricity used for vehicle charging, which would be in addition to the state’s existing \$200 registration fee for electric vehicles. Meanwhile, the Utah State Legislature enacted legislation establishing a 12.5% tax on the retail sale of electricity sold at electric vehicle charging stations. Like Georgia, this tax is in addition to the state’s electric vehicle registration fees.

El Paso Electric and Xcel Energy Propose New Electric Vehicle Programs in Texas

In Texas, El Paso Electric and Xcel Energy filed applications for several new electric vehicle programs during Q1 2023. El Paso Electric’s application includes new managed charging

programs and off-peak charging credits, as well as a variety of rebates for charging infrastructure. Xcel Energy’s application also includes charging station rebates and a managed charging program, as well as an option for customers to choose to have utility-owned charging stations installed for a monthly fee.

Figure 1. Q1 2023 State and Utility Action on Electric Vehicles



New York Regulators Approve Demand Rate Alternatives for Commercial Charging

New York regulators issued an order in January 2023 approving immediate and near-term solutions in its proceeding to establish a framework for alternatives to traditional demand-based rate structures for commercial charging. The decision approves a 50% demand charge rebate for the upstate utilities and a commercial managed charging program for the downstate utilities. The decision also approves an electric vehicle phase-in rate that will begin as a time-of-use rate and later blend in demand charges.

AEP Ohio Files Electric Transportation Plan as Part of Electric Security Plan

AEP Ohio filed its Electric Security Plan in January 2023, which includes \$99 million in investment as part of a proposed Electric Transportation (ET) Plan. The ET Plan involves a

variety of incentives for residential, commercial, and public charging stations, as well as electric buses. The plan also includes new residential charging rates and a rate to encourage off-peak charging for electric public transport and school buses. Additionally, the plan proposes a commercial and industrial charging equipment lease program.

Colorado Energy Office Releases its 2023 Electric Vehicle Plan

The Colorado Energy Office released its 2023 Electric Vehicle Plan in March 2023, which sets updated electric vehicle adoption goals for the state. The 2023 plan adopts a new goal of 70% of new light-duty vehicle sales being electric vehicles by 2030, as well as a goal of having 2.1 million light-duty electric vehicles in the state by 2035. The 2023 plan notes that about 60% of the actions and goals set in the 2020 plan have been achieved.

Figure 2. Top Electric Vehicle Actions of Q1 2023

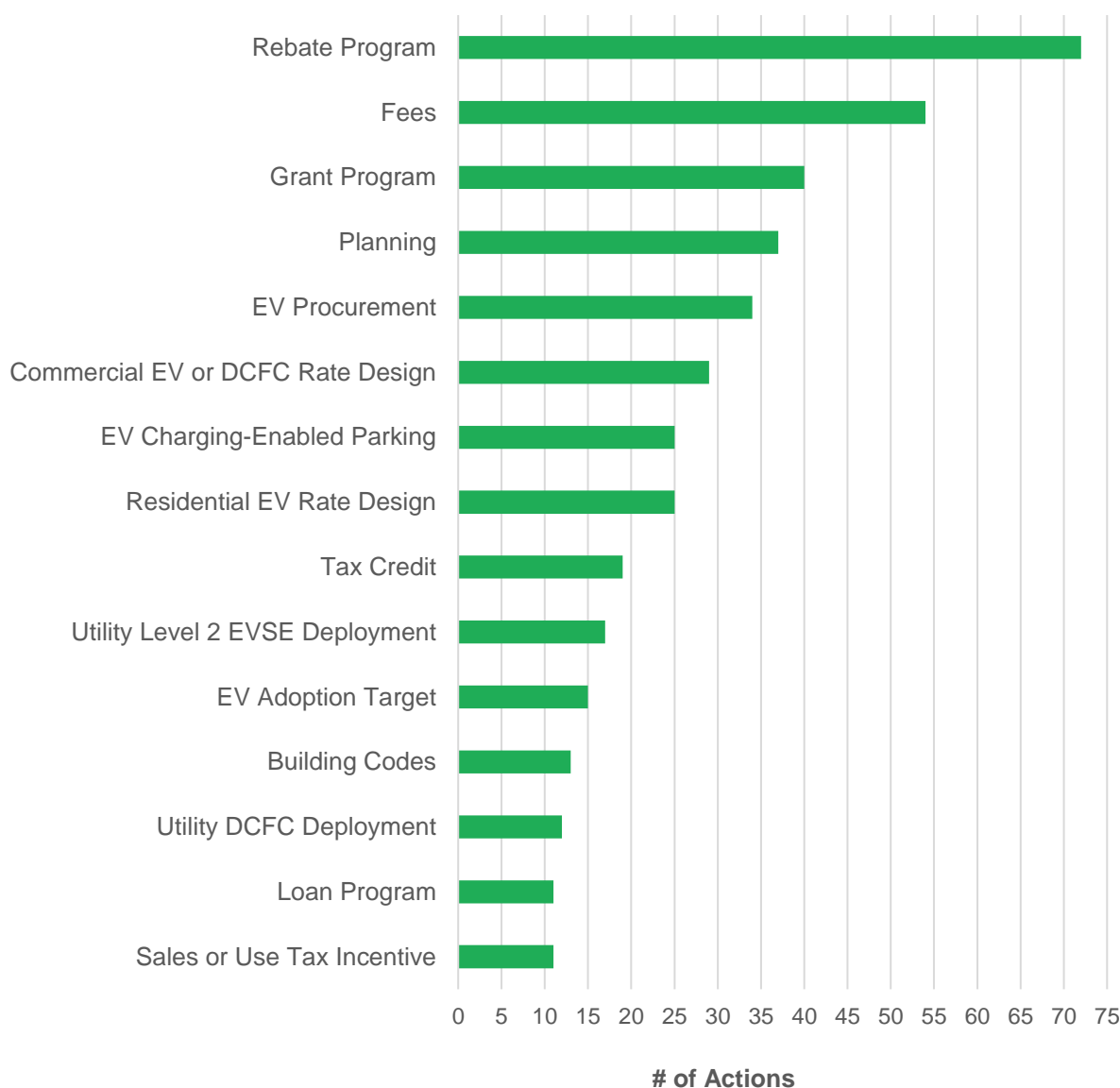
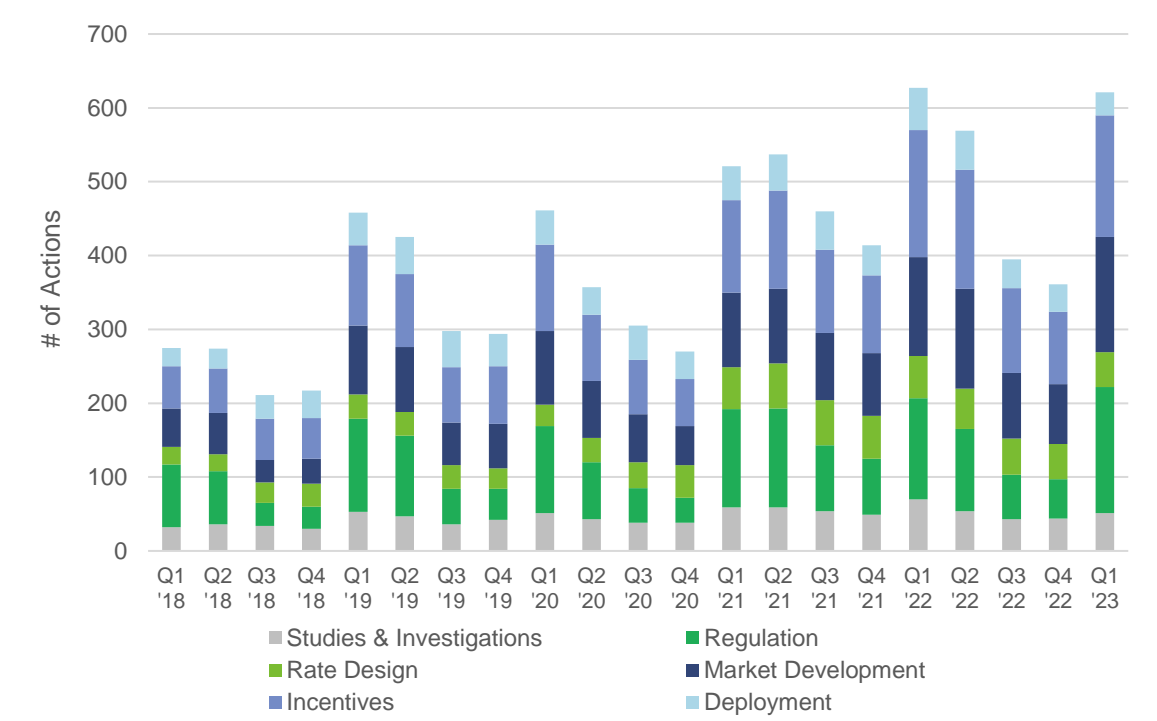


Figure 3. Electric Vehicle Action by Quarter, Q1 2018 to Q1 2023



TOP ELECTRIC VEHICLE POLICY TRENDS OF Q1 2023

States Considering Fees Based on Miles Traveled or Vehicle Charging

While most states have focused on additional registration fees for electric vehicles in order to help fund transportation infrastructure, a growing number of states are now considering adopting fees based on miles traveled or per-kWh of vehicle charging, either as an alternative to or a supplement to registration fees. Utah lawmakers enacted legislation in March 2023 establishing a tax on the retail sale of electricity sold by electric vehicle charging stations. In Georgia, legislators passed a bill approving a tax on electricity consumed, used, or sold through charging stations. In Montana, legislation has also advanced that would establish a per-kWh tax on electricity used at public charging stations. The Vermont State House passed a bill authorizing a mileage-based fee for battery electric vehicles, and the Hawaii State House passed legislation allowing electric vehicle owners to choose between paying a mileage-based fee and a registration surcharge.

Lawmakers Addressing Utility Ownership of Charging Infrastructure

State lawmakers in several states have proposed legislation in 2023 allowing or, more commonly, restricting utility ownership of electric vehicle charging stations. In Oklahoma, the State Senate passed a bill requiring retail electric suppliers that own, operate, or maintain public charging stations to only do so through a separate, unregulated entity. The Montana State Senate passed legislation that would allow public utilities to provide commercial charging

services. Legislation introduced in South Carolina would require any utility that provides, owns, operates, or maintains a public charging station to do so through a separate, unregulated entity, while a proposed Florida bill would prohibit utilities from using rate-based investments for the ownership and operation of charging stations. Similarly, legislation introduced in Arizona prohibits utilities from using charges, rates, tolls, and rental fees to build or operate charging stations; utilities would only be allowed to use these charges for make-ready infrastructure.

Utilities Increasingly Using Telematics to Collect Charging Data

A growing trend across the country has been the use of vehicle telematics, as opposed to smart or networked charging stations, to collect electric vehicle charging data. This allows an electric vehicle driver’s full charging behavior to be analyzed, rather than their use of a particular charging station. In March 2023, the Hawaii Public Utilities Commission approved HECO’s electric vehicle telematics pilot program, which is focused on data collection and provides participation incentives. In Virginia, regulators are considering Dominion Energy’s proposal to implement a residential electric vehicle telematics program, which would be used for demand response purposes. NV Energy proposed telematics programs for low-income customers and government fleets to help these customers understand the value proposition of switching to electric and which vehicle models may best meet their needs. The Commission directed the utility to defer implementation of the telematics programs.

Figure 4. 2023 Proposed Legislation on Electric Vehicles (as of late April 2023)

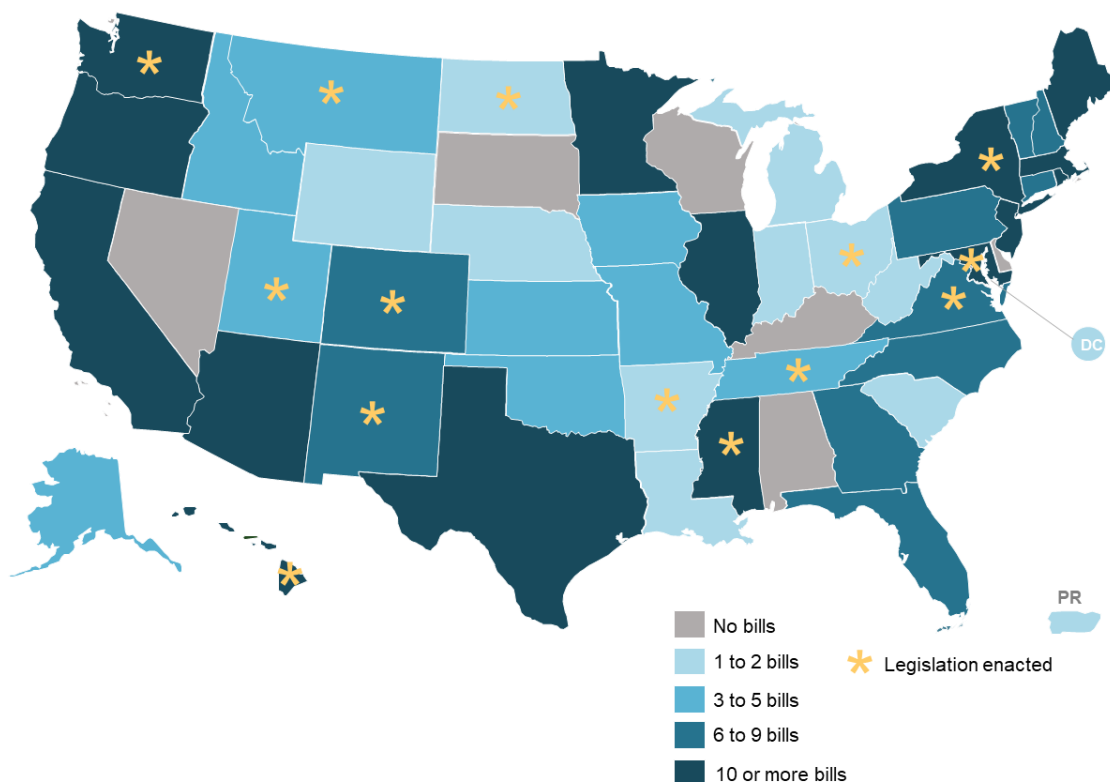
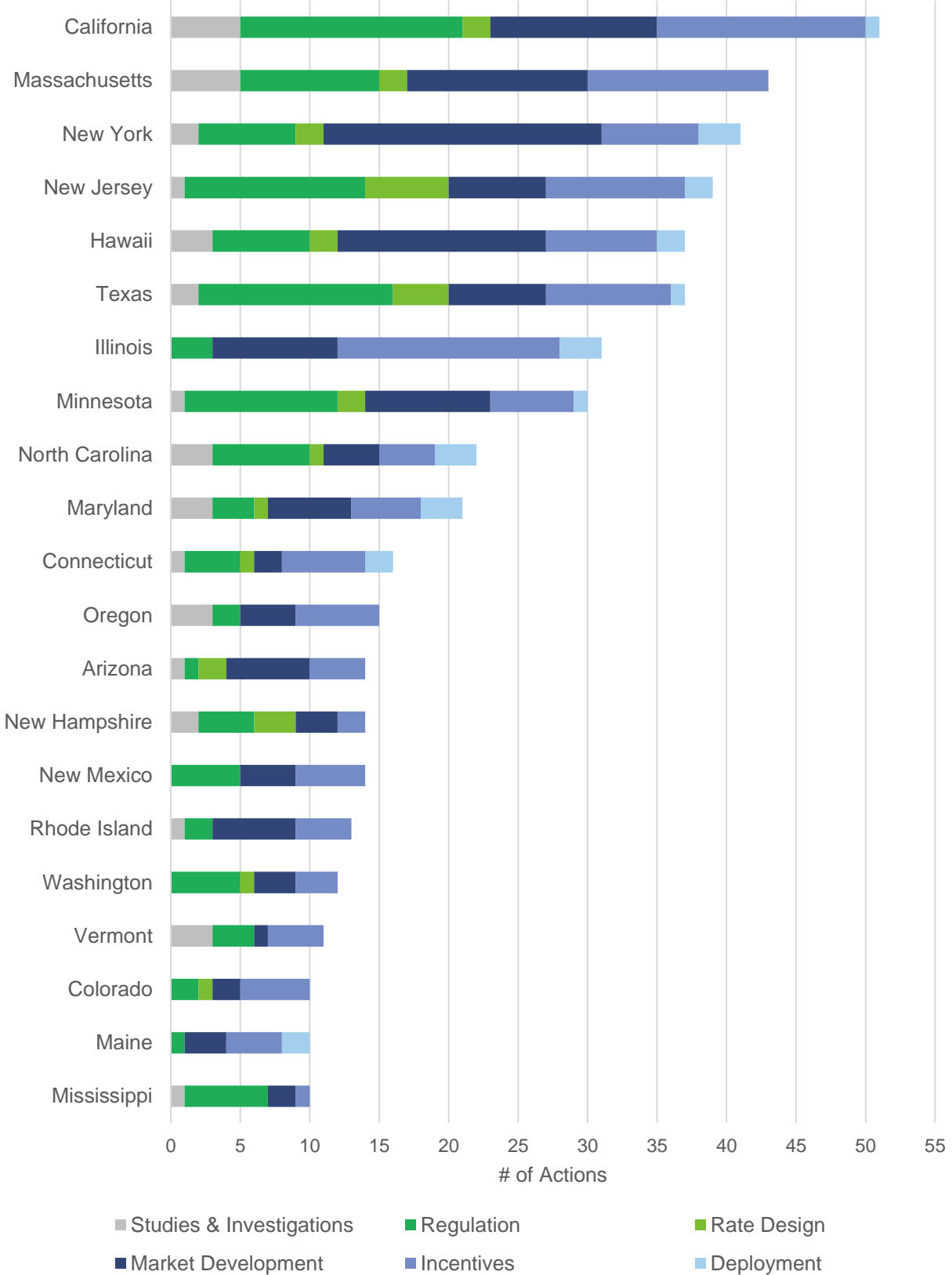


Figure 5. Most Active States of Q1 2023



FULL REPORT DETAILS & PRICING

FULL REPORT DETAILS

Content Included in the Full Quarterly Report:

- Detailed tables describing each pending and recently decided state and investor-owned utility action related to electric vehicles and charging infrastructure. Actions are broken out into the following categories:
 - Studies and Investigations
 - Regulation
 - Rate Design
 - Market Development
 - Financial Incentives
 - State and Utility Deployment
- Links to original legislation, dockets, and commission orders for each legislative and regulatory action
- Excel spreadsheet file of all actions taken during the quarter and separate Powerpoint file of all summary maps available upon request
- Qualitative analysis and descriptive summaries of electric vehicle policy action and trends
- Outlook of action for the next quarter

WHO SHOULD PURCHASE THIS REPORT

The 50 States of Electric Vehicles allows those involved in the electric and transportation industries to easily stay on top of legislative and regulatory changes. The report provides a comprehensive quarterly review of actions. At a cost of \$500 per issue (or \$1,500 annually), the 50 States of Electric Vehicles offers a significant time and financial savings. With direct links to original sources for all actions, customers may stay on top of legislative and regulatory developments between quarterly reports.

Electric Vehicle and Charging Infrastructure Companies

- Identify new market opportunities, as well as changing and risky markets
- Stay on top of state policy developments relevant to your business
- Give your own team a head start in tracking legislative and regulatory proceedings

Electric Utilities

- Learn about the approaches being taken by other utilities facing similar opportunities and challenges
- Stay on top of relevant state policy developments

- Utilize an objective source of information in legislative and regulatory proceedings

Investors and Financial Analysts

- Identify new investment opportunities and emerging areas of growth, as well as risky investments
- Identify active utility investment proceedings

Advocacy Organizations

- Learn about the electric vehicle actions under consideration across the country
- Learn about the outcomes of other states' policy discussions
- Utilize an objective source of information in legislative and regulatory proceedings

Researchers and Consultants

- Access valuable data requiring a vast amount of time to collect first-hand
- Identify research needs to inform electric vehicle proceedings
- Cite an objective source in your own research and analysis

PRICING

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