

# 50

# STATES OF ELECTRIC VEHICLES

2024 Annual Review & Q4 2024 Report

**Executive Summary**



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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.

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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*, *The 50 States of Grid Modernization*, and *The 50 States of Power Decarbonization*. 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

## 2024 ELECTRIC VEHICLE ACTION

In 2024, 46 states plus DC and Puerto Rico took a total of 751 policy and deployment actions related to electric vehicles and charging infrastructure. Table 1 provides a summary of state and utility actions on these topics. Of the 751 actions identified, the most common were related to regulation (201), followed by market development (197) and financial incentives (176). All 50 states, plus DC and Puerto Rico also took actions planning for National Electric Vehicle Infrastructure (NEVI) program funding distribution.

**Table 1. 2024 Summary of Electric Vehicle Actions**

Type of Action	# of Actions	% by Type	# of States
Regulation	201	27%	39 + DC, PR
Market Development	197	26%	31 + DC, PR
Financial Incentives	176	23%	38 + DC, PR
Rate Design and Managed Charging	83	11%	32 + PR
Studies and Investigations	56	7%	25
Deployment	38	5%	18 + DC
<b>Total</b>	<b>751</b>	<b>100%</b>	<b>46 States + DC, PR</b>

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 TEN MOST ACTIVE STATES OF 2024

Ten states taking the greatest number of actions related to electric vehicles, or some of the most impactful actions, are noted below.

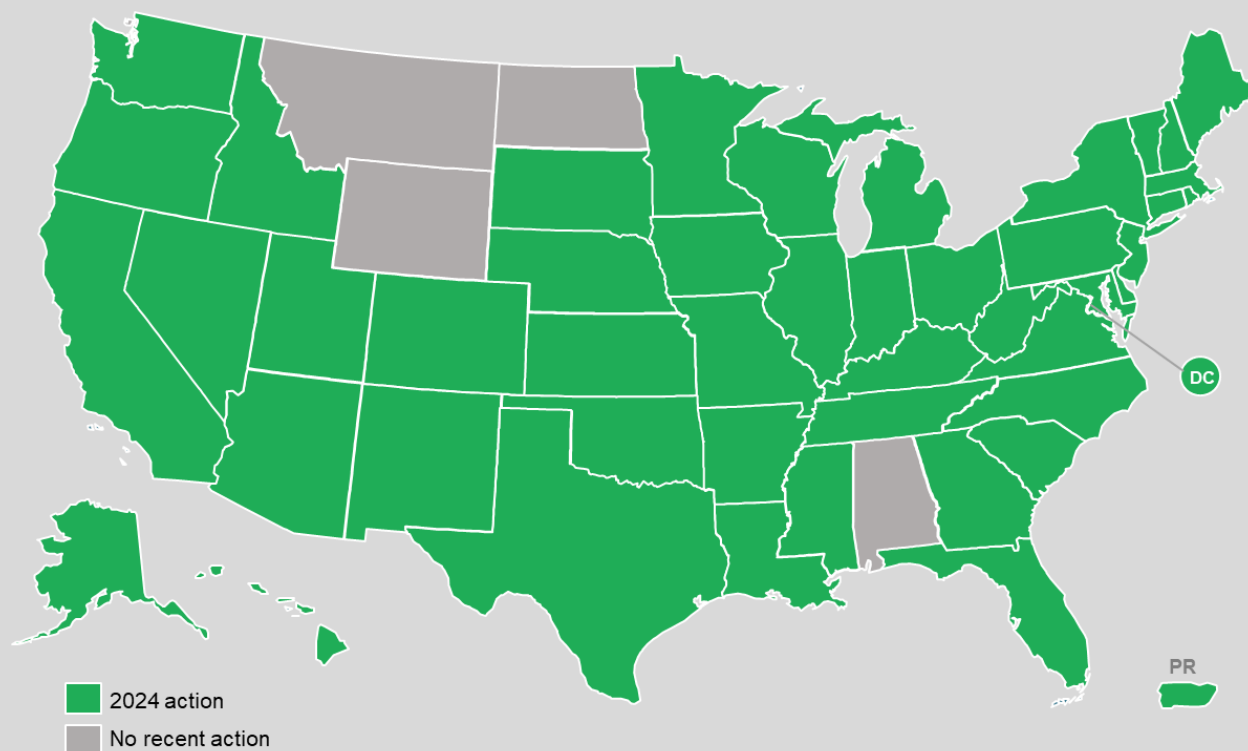
### New Mexico

New Mexico legislators established new income tax credits for electric vehicles and charging stations, while regulators approved transportation electrification plans for all three investor-owned utilities. These plans include new active managed charging programs, as well as new charging station and make-ready incentives. State lawmakers also ordered the Environmental Improvement Board to establish a clean fuel standard by July 2026.

## Maryland

Utilities in Maryland filed Phase II electric vehicle programs including make-ready incentives, managed charging programs, and charging-as-a-service offerings; separate filings also included pilots for electric school buses. The Public Service Commission opened a new rulemaking to address vehicle-grid integration, while the EV Supply Equipment Workgroup make recommendations regarding payment methods for public charging stations.

**Figure 1. 2024 Legislative and Regulatory Action on Electric Vehicles**



## Massachusetts

Massachusetts utilities filed the next phase of their electric vehicle infrastructure programs, creating and updating managed charging and upfront incentive programs. State legislators enacted an omnibus energy bill with multiple transportation provisions. The bill initiated research into a possible electric vehicle-only sales mandate, medium- and heavy-duty charging stations, and pole-mounted chargers. The bill also ordered regulators to create rules governing charger reliability and electricity pricing.



## California

California regulators adopted energization timeline requirements for utilities, as required by 2023 legislation, as well as guidelines for the Clean Miles Standard Program, focused on transportation network companies. Regulators opened two rulemakings regarding payment methods for public chargers and funding concepts for technical assistance, and Southern California Edison proposed a new vehicle-to-grid rate option. The California Air Resources Board also approved amendments to the Low Carbon Fuel Standard.

## Minnesota

The Minnesota Public Utilities Commission approved three utility transportation electrification plans during the year. Xcel Energy will implement a new waiver on contributions in aid of construction (CIAC) for residential charging infrastructure, while Otter Tail Power will offer increased rebates for Level 2 chargers and a revised DC fast charging tariff. Minnesota Power later filed a new multi-family pilot with make-ready infrastructure incentives and CIAC waivers.

## Michigan

Michigan Public Service Commission Staff introduced a draft filing process for transportation electrification plans, which would move to a regular filing schedule, as opposed to plans being completed on an ad hoc basis. Consumers Energy and DTE Energy filed transportation electrification plans during the year, and multiple utilities included transportation program proposals as part of general rate case filings.

## New York

The New York Public Service Commission approved utilities' load management technology incentive programs, while utilities also filed various changes to existing electric vehicle programs, including expanding the joint medium- and heavy-duty make-ready pilot to include Consolidated Edison. New York lawmakers enacted legislation adopting requirements for electric vehicle-capable parking spaces at newly constructed buildings.

## Texas

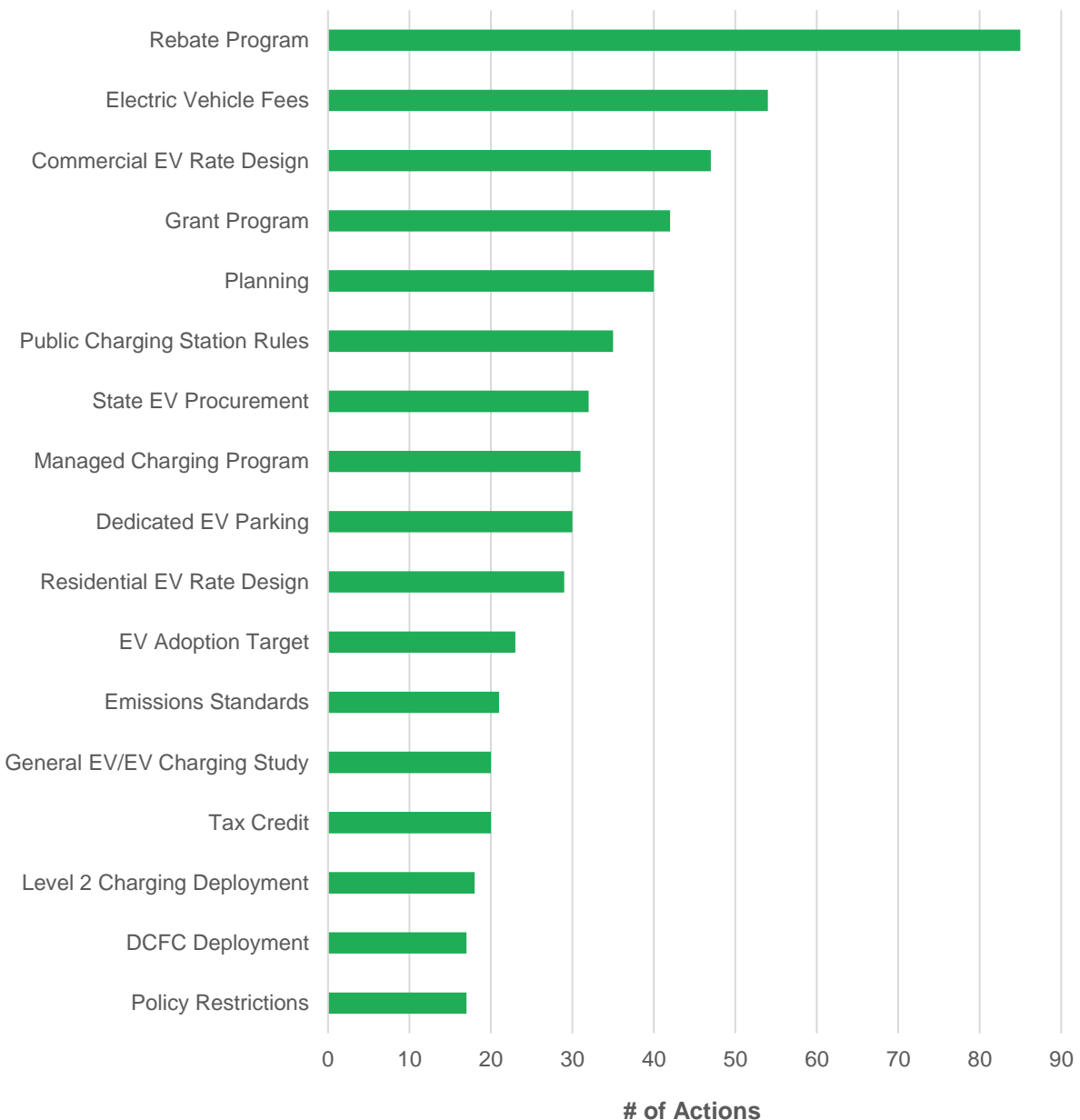
Texas regulators approved transportation electrification programs submitted by El Paso Electric, Entergy Texas, and Xcel Energy. The Public Utility Commission allowed Entergy to own charging infrastructure as part of two new electric vehicle riders, in line with a 2023 bill permitting utility ownership. Regulators also began developing an incentive program for backup power at critical facilities, including electric buses as energy storage, in line with a separate 2023 bill.

# TOP ELECTRIC VEHICLE TRENDS OF 2024

## Moving Toward Active Managed Charging Models

Utilities are increasingly moving toward active managed charging offerings, especially for residential customers, that allow for direct utility control of charging in order to shift and smooth demand. Delmarva Power & Light, Eversource Energy, NV Energy, Pepco, Potomac Edison, Rhode Island Energy, and Xcel Energy are among the utilities that filed new active managed charging program proposals in 2024.

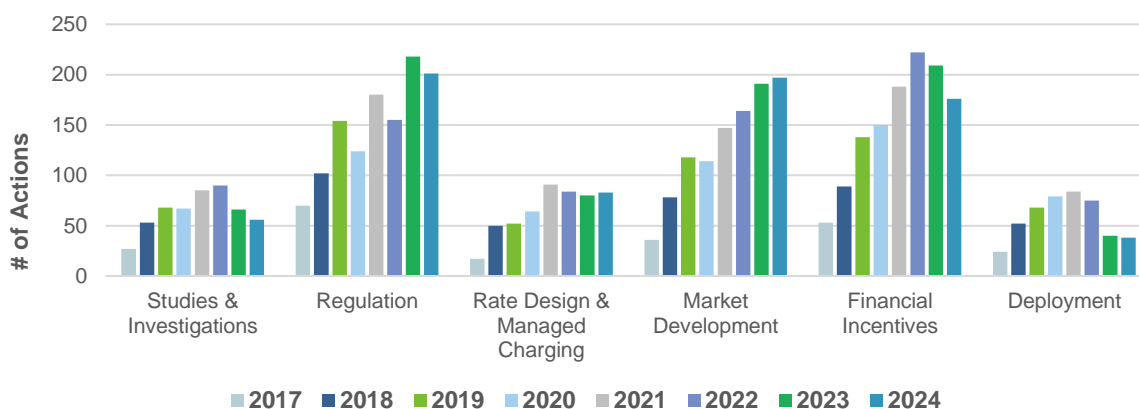
**Figure 3. Top Electric Vehicle Actions of 2024**



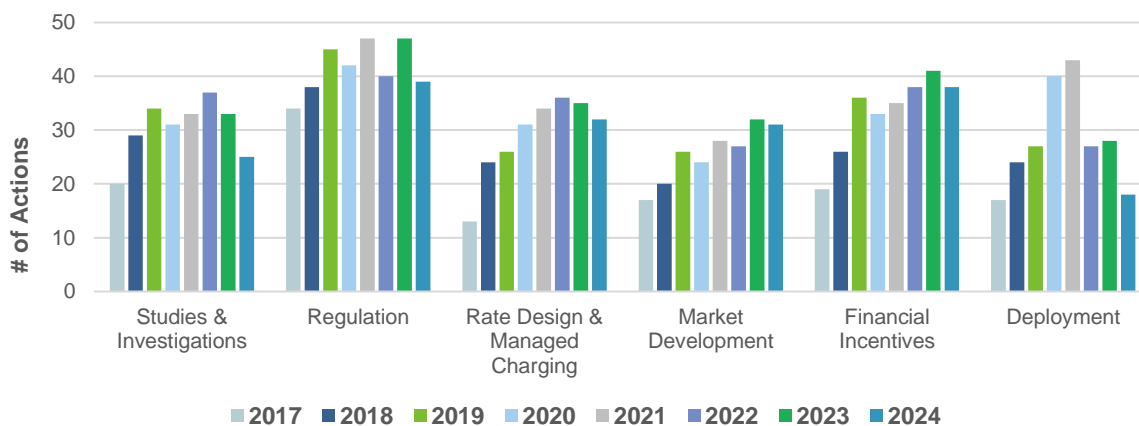
## Prohibiting Electric Vehicle Mandates

Legislators in several states aimed to limit electric vehicle requirements for state fleets or the general market in 2024. Kentucky lawmakers prohibited state agencies from mandating electric vehicle purchases for state fleets or adopting California’s emission standards. Missouri legislators restricted local governments from requiring chargers at nonprofits. Louisiana lawmakers banned restrictions on the use or sale of vehicles based on energy source, while Ohio legislators expressed opposition to vehicle mandates.

**Figure 4. Number of Electric Vehicle Actions 2017-2024**



**Figure 5. Number of States Taking Electric Vehicle Actions 2017-2024**



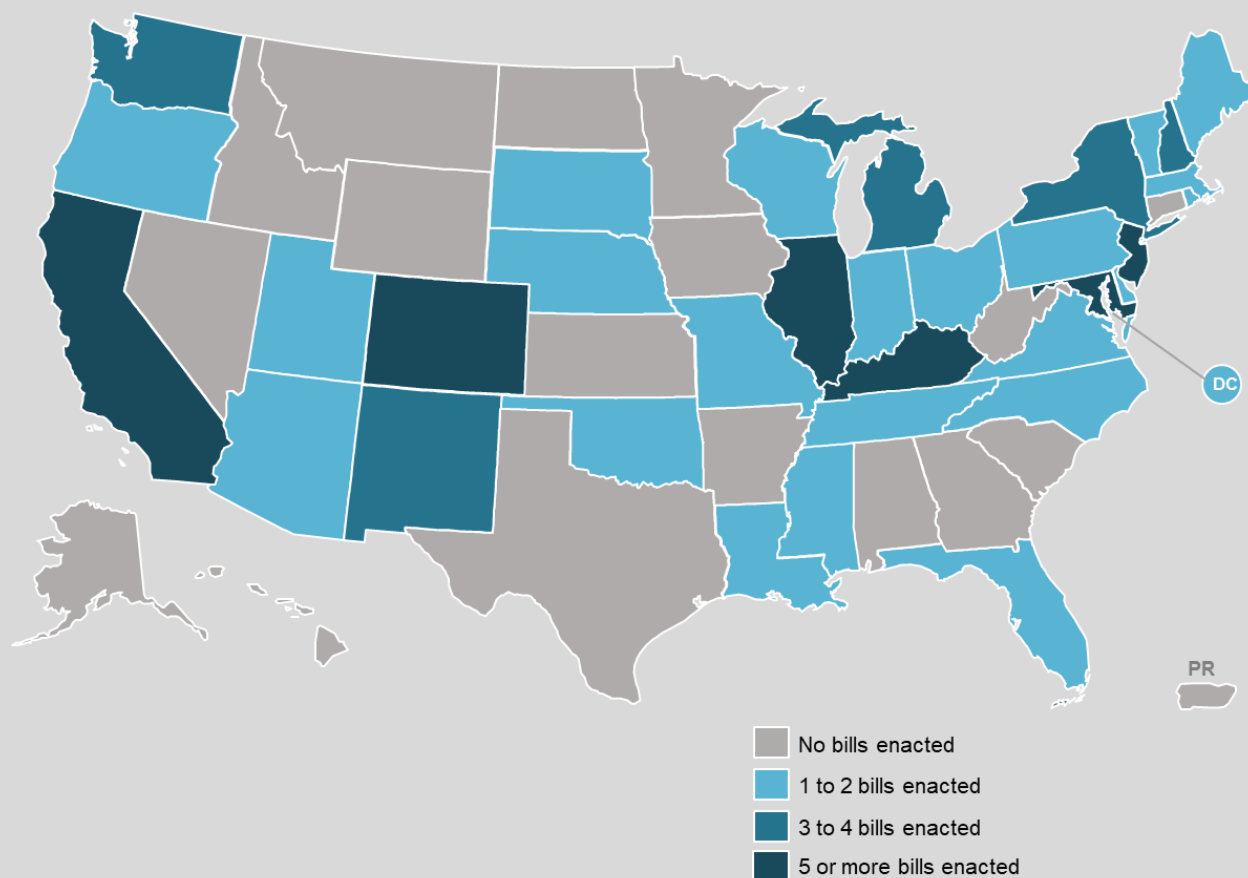
## Deploying Charging Infrastructure for Medium- and Heavy-Duty Vehicles

States and utilities are expanding charging infrastructure deployment to include chargers for medium- and heavy-duty vehicles (MHDs). New Jersey regulators established rules for utilities to file MHD plans for make-ready infrastructure and fast charger deployment. New York utilities proposed expanding their existing MHD Make-Ready Pilot to include Consolidated Edison, and Massachusetts lawmakers ordered an intergovernmental council to develop plans for MHD charger deployment.

## Advancing Bidirectional Charging Efforts

Stakeholders are pursuing opportunities to advance bidirectional charging technology as a part of transportation electrification efforts. Maryland regulators began a rulemaking focusing on bidirectional charging, while Eversource proposed a new incentive for bidirectional chargers in Massachusetts. In Nevada, NV Energy proposed a new vehicle-to-X pilot, and Southern California Edison requested approval for a vehicle-to-grid tariff that would provide a bill credit for exported energy.

**Figure 6. Electric Vehicle Legislation Enacted in 2024**



## Implementing New and Increased Fees for Electric Vehicle Drivers

State legislators continued to implement new or larger fees for electric vehicles in 2024. Nebraska and Wisconsin lawmakers both approved a three cent per kWh excise tax on electricity at public charging stations. Meanwhile, policymakers in Maryland, Nebraska, New Jersey, Pennsylvania, and Vermont adopted new or increased registration fees for electric vehicle drivers.

## **Expanding Transportation Electrification Programs to Multifamily Customers**

While electric vehicle programs are prevalent for single-family residential customers, states and utilities are increasingly pursuing programs aimed at multifamily customers as well. Connecticut regulators implemented a new passive managed charging program for multi-unit dwellings by utilizing direct-to-driver technologies. Minnesota Power, Pepco, and Delmarva Power & Light submitted new multifamily make-ready programs, while El Paso Electric requested approval for new charger rebates for multi-unit dwellings.

## **Filing Comprehensive Transportation Electrification Plans**

Utilities are increasingly filing their proposals for electric vehicle and charging infrastructure programs as part of comprehensive transportation electrification plans (TEPs), with several states establishing specific requirements for these plans. Regulators in Colorado, Michigan, Minnesota, Nevada, and New Mexico considered expansive utility TEPs during the year, while Michigan Public Service Commission Staff developed a TEP process.

## **Offering Incentives for Supporting Infrastructure**

States and utilities are expanding incentives beyond those for vehicles and charging stations, often dedicating funding to make-ready equipment or other distribution system upgrades. Minnesota regulators approved a waiver for contributions in aid of construction costs for Xcel Energy, waiving shared costs for transformer upgrades related to residential charger deployment. Pre-wiring and wiring incentives are also being offered or considered in many states, including Arizona, Connecticut, Florida, Illinois, Indiana, and New Mexico.

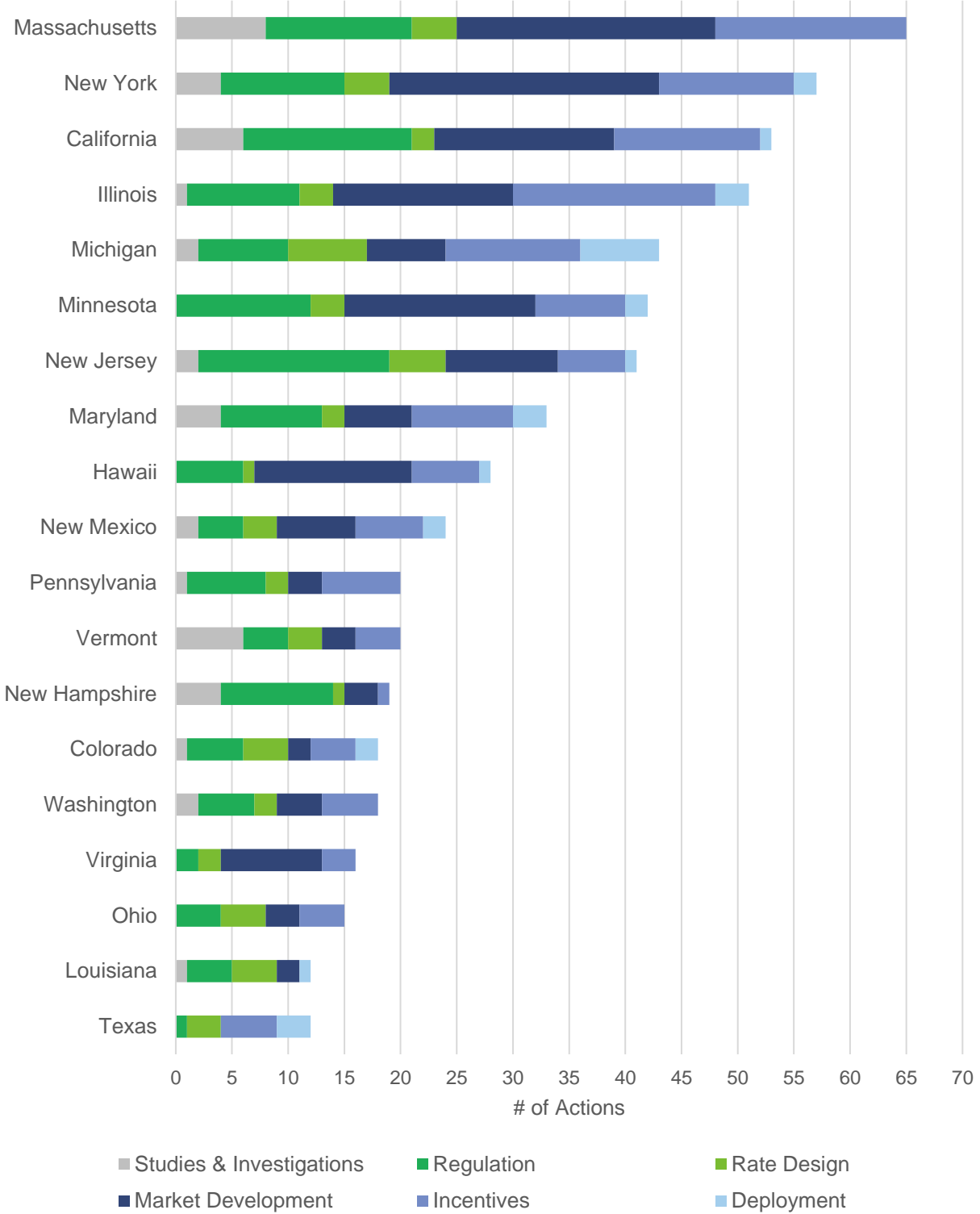
## **Establishing Uptime Standards for Public Charging Stations**

In order to address the challenge of charging station reliability, some states are establishing uptime standards for public charging stations. Massachusetts lawmakers enacted legislation requiring the development of uptime standards and data-sharing on real-time availability. New Jersey legislators set uptime requirements that will apply to charging stations receiving incentives, and the California Energy Commission is also working to develop uptime standards.

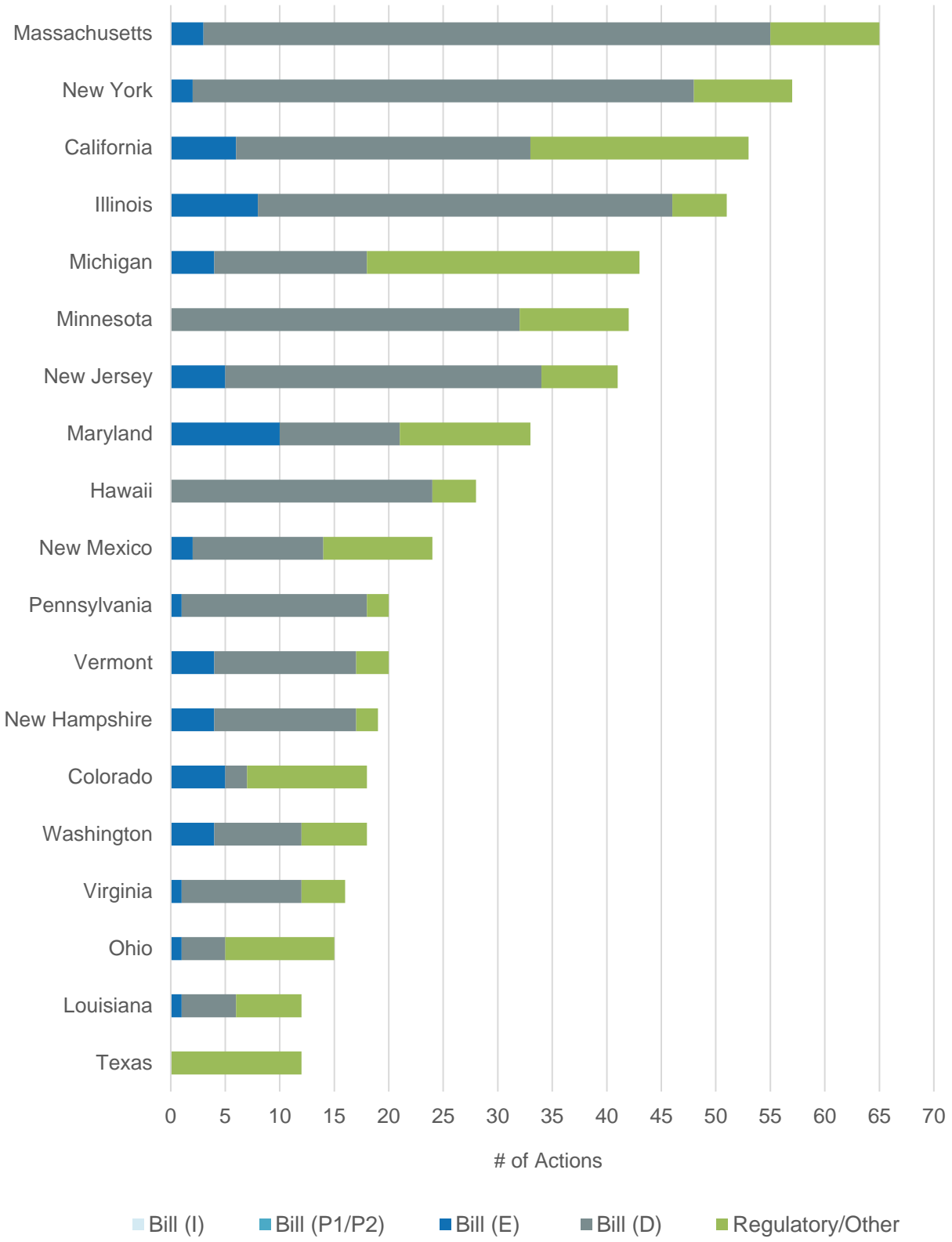
## **Aligning Transportation Electrification Plans With Other Planning Efforts**

A number of states and utilities are beginning to merge TEPs with other grid planning efforts. Arizona Public Service filed its TEP as part of its demand-side management plan, while Massachusetts utilities included transportation electrification elements within their electric sector modernization plans. In Minnesota, utilities are including TEPs within their integrated distribution plans.

**Figure 7. Most Active States of 2024, by Number of Actions**



**Figure 8. Most Active States of 2024, by Action Status**



## Q4 2024 ELECTRIC VEHICLE ACTION

In Q4 2024, 34 states plus DC and Puerto Rico took a total of 340 actions related to electric vehicles. Table 2 provides a summary of state and utility actions occurring during Q4 2024. Of the actions cataloged, the most common were related to financial incentives (87), followed by market development (83), and regulation (74). All 50 states, plus DC and Puerto Rico, took actions planning for National Electric Vehicle Infrastructure (NEVI) program funding distribution.

**Table 2. Q4 2024 Summary of Electric Vehicle Actions**

Type of Action	# of Actions	% by Type	# of States
Financial Incentives	87	26%	21 + DC, PR
Market Development	83	24%	11 + DC, PR
Regulation	74	22%	15 + DC, PR
Rate Design	51	15%	28 + PR
Studies and Investigations	29	9%	16
Deployment	16	5%	9 + DC
<b>Total</b>	<b>340</b>	<b>100%</b>	<b>34 States + DC, PR</b>

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 Q4 2024

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

### **Maryland Utilities File Phase II Electric Vehicle Programs**

Baltimore Gas & Electric, Delmarva Power & Light, Pepco, and Potomac Edison filed their Phase II EV Program proposals in December 2024. The proposals include make-ready incentives, as well as passive and active managed charging programs. Baltimore Gas & Electric and Potomac Edison also requested approval for charging-as-a-service programs, and Potomac Edison filed an electric school bus pilot.

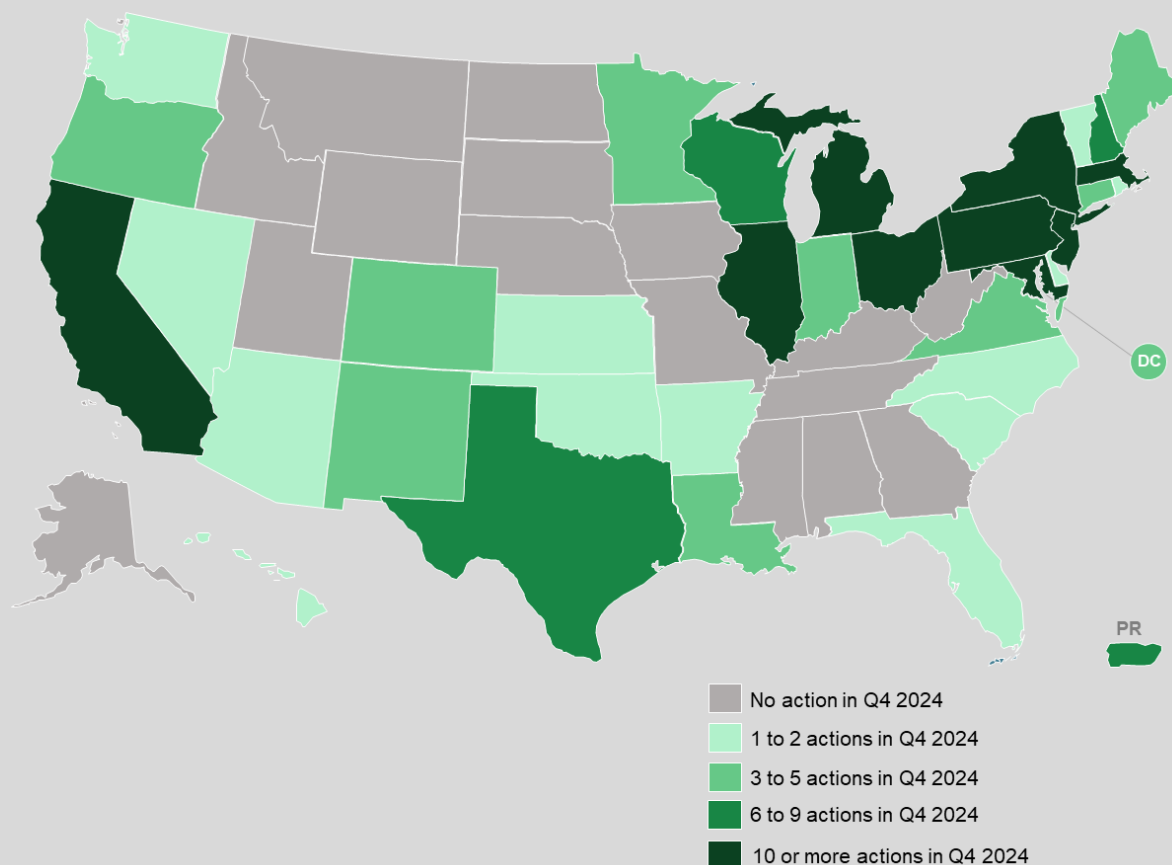
### **New Jersey Regulators Adopt Filing Requirements for Medium- and Heavy-Duty Charging Plans**

The New Jersey Board of Public Utilities approved new guidelines for utilities to file medium- and heavy-duty electric vehicle charging program plans. The plans should focus on make-ready infrastructure and fast chargers, and utilities are discouraged, but not prohibited, from owning charging infrastructure. Utilities must submit their plans within 120 days of the effective date of the Board’s order (October 30, 2024).

## Massachusetts Utilities File Next-Phase Electric Vehicle Infrastructure Programs

Eversource, National Grid, and Unitil submitted plans for the next phases of their electric vehicle infrastructure programs in December 2024. The modifications amend existing incentives and managed charging programs. Eversource also proposed new incentives for medium- and heavy-duty chargers, new incentives for bidirectional chargers, and a new residential passive managed charging program.

**Figure 9. Q4 2024 State and Utility Action on Electric Vehicles**



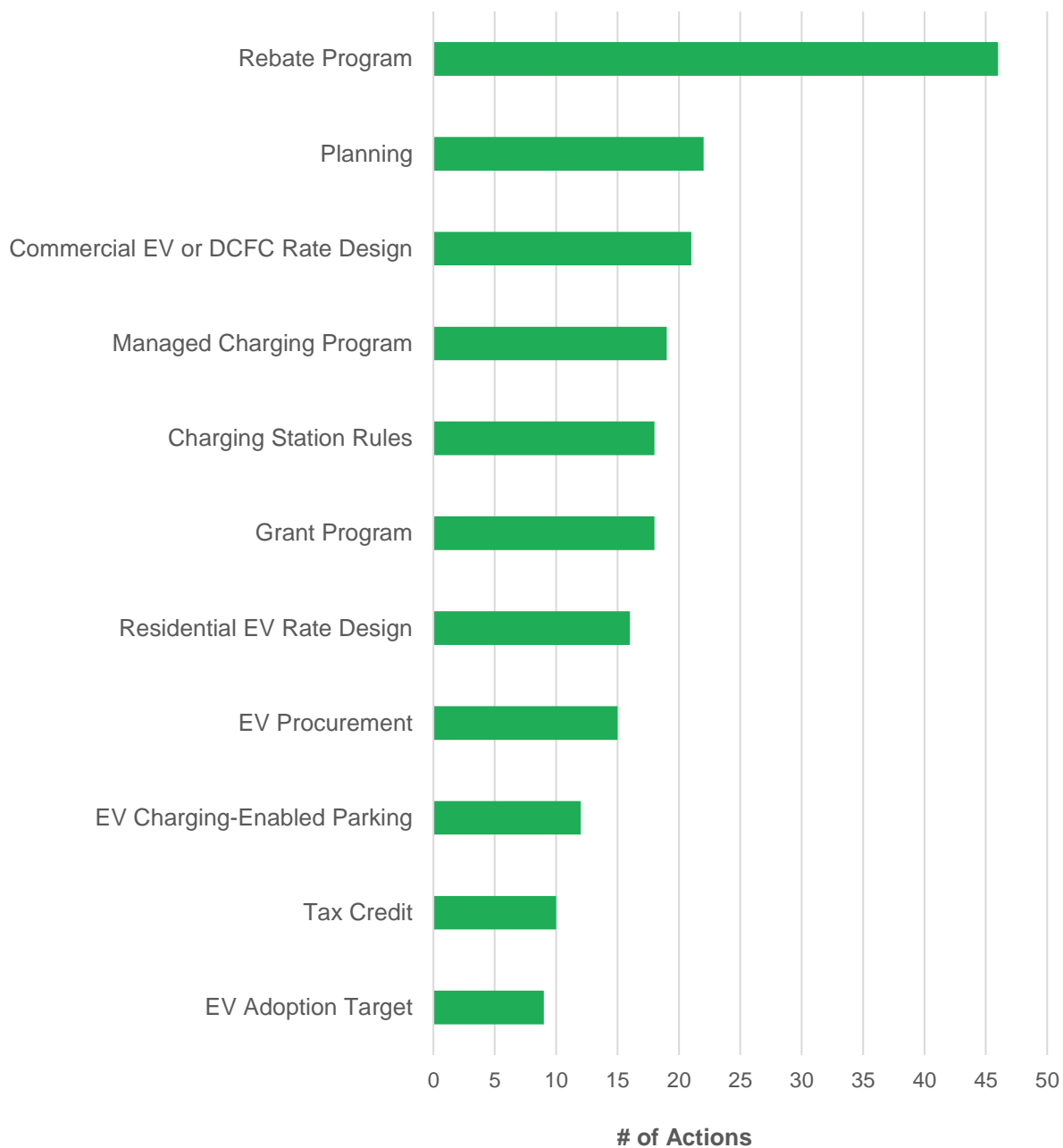
## Nevada and New Mexico Regulators Approve Utility Transportation Electrification Plans

Utility regulators in Nevada and New Mexico approved transportation electrification plans from NV Energy and Xcel Energy, respectively. Xcel Energy will offer a new active managed charging program, along with new rebates for commercial and public chargers. NV Energy will implement new managed charging programs for residential and fleet customers, along with various pilots focused on submetering, vehicle-grid integration, and vehicle telematics.

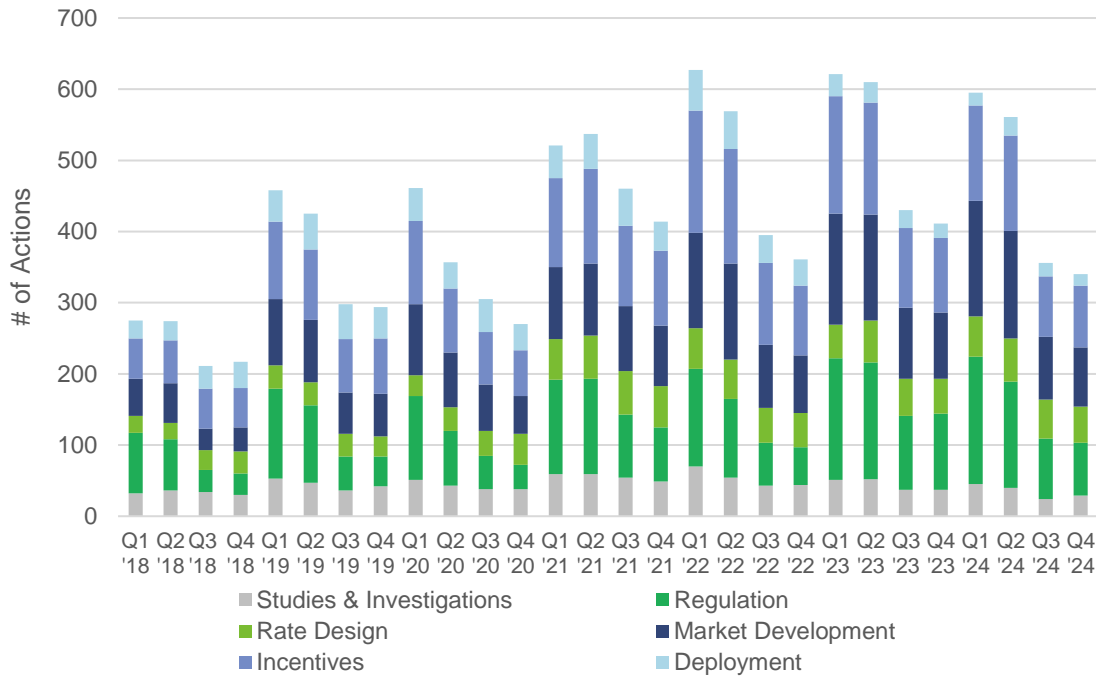
## DC City Council Passes Bill Supporting Electric Vehicle Charging Infrastructure

The DC City Council passed a bill supporting electric vehicle charging infrastructure in multiple ways. The bill that established charging infrastructure requirements for new construction or upgrades of commercial, single-family, and multi-family buildings with off-street parking. The bill requires the District’s Department of Transportation to develop an electric vehicle plan and directs the Department of Energy and Environment to develop and incentive program for electric vehicle charging infrastructure.

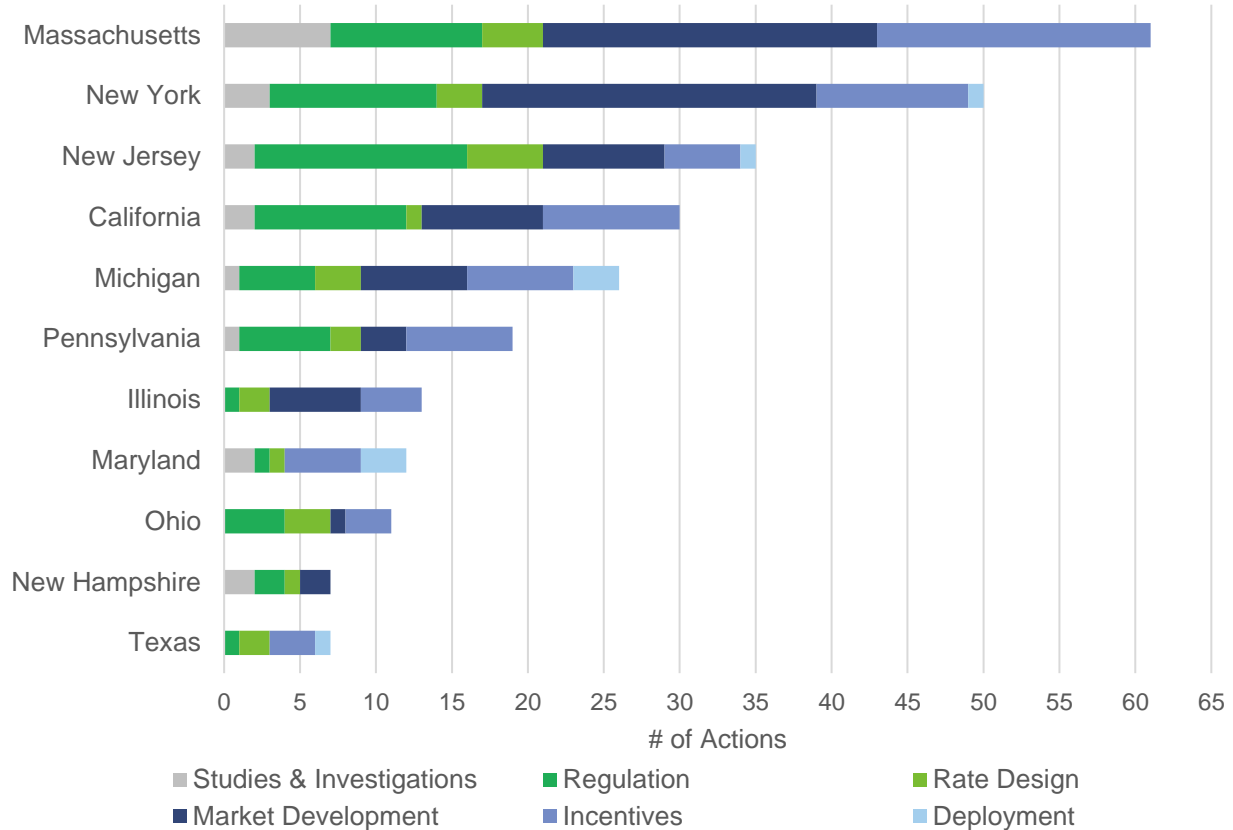
**Figure 10. Top Electric Vehicle Actions of Q4 2024**



**Figure 11. Electric Vehicle Action by Quarter, Q1 2018 to Q4 2024**



**Figure 12. Most Active States of Q4 2024**



# 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

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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.

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- Give your own team a head start in tracking legislative and regulatory proceedings

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- Stay on top of relevant state policy developments

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

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- 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

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