

50 STATES OF ELECTRIC VEHICLES

2017 Annual Review

Executive Summary



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- Q4 2017: [Executive Summary](#)
- Q3 2017: [Full Report](#) | [Executive Summary](#)
- Q2 2017: [Full Report](#) | [Executive Summary](#)
- Q1 2017: [Full Report](#) | [Executive Summary](#)

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- [Q4 2017 and 2017 Policy Review – Executive Summary](#)
- [Q3 2017 Executive Summary](#)
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- [Q1 2017 Executive Summary](#)
- [Q4 2016 and 2016 Policy Review – Executive Summary](#)
- [Q3 2016 Executive Summary](#)
- [Q2 2016](#)
- [Q1 2016](#)
- [Q4 2015 and 2015 Policy Review](#)
- [Q3 2015](#)
- [Q2 2015](#)
- [Q1 2015](#)
- [Q4 2014](#)

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 grow markets for electric vehicles and related infrastructure?
- How are utilities designing rates to influence charging behavior of electric vehicle owners?
- Where and how are states and utilities proposing deployment of 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

This report currently excludes actions taken by utilities that are not state-regulated, such as municipal utilities and electric cooperatives in many states. 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 electric vehicle charging; these types of actions are tracked in the 50 States of Grid Modernization report series.

EXECUTIVE SUMMARY

2017 ELECTRIC VEHICLE ACTION

In 2017, 43 states plus DC took a total of 227 legislative and regulatory actions related to electric vehicles. Table 1 provides a summary of state and utility actions occurring during 2017. Of the 227 actions catalogued, the most common were related to Regulation (70), followed by Financial Incentives (53), and Market Development (36).

Table 1. 2017 Summary of Electric Vehicle Actions

Type of Action	# of Actions	% by Type	# of States
Regulation	70	31%	34
Financial Incentives	53	23%	19 + DC
Market Development	36	16%	17
Studies and Investigations	27	12%	20 + DC
Deployment	24	11%	17 + DC
Rate Design	17	7%	13 + DC
Total	227	100%	43 States + DC

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 POLICY TRENDS OF 2017

Six of the year's most notable electric vehicle policy trends are noted below.

Policymakers and Regulators Addressing Barriers to Charging Infrastructure Development

Many state legislatures and regulatory commissions are working to address existing barriers to charging infrastructure development. Some legislatures considered bills to prohibit homeowner associations from restricting charging installations, while other legislatures and commissions addressed rules relating to public utility regulation and the resale of electricity.

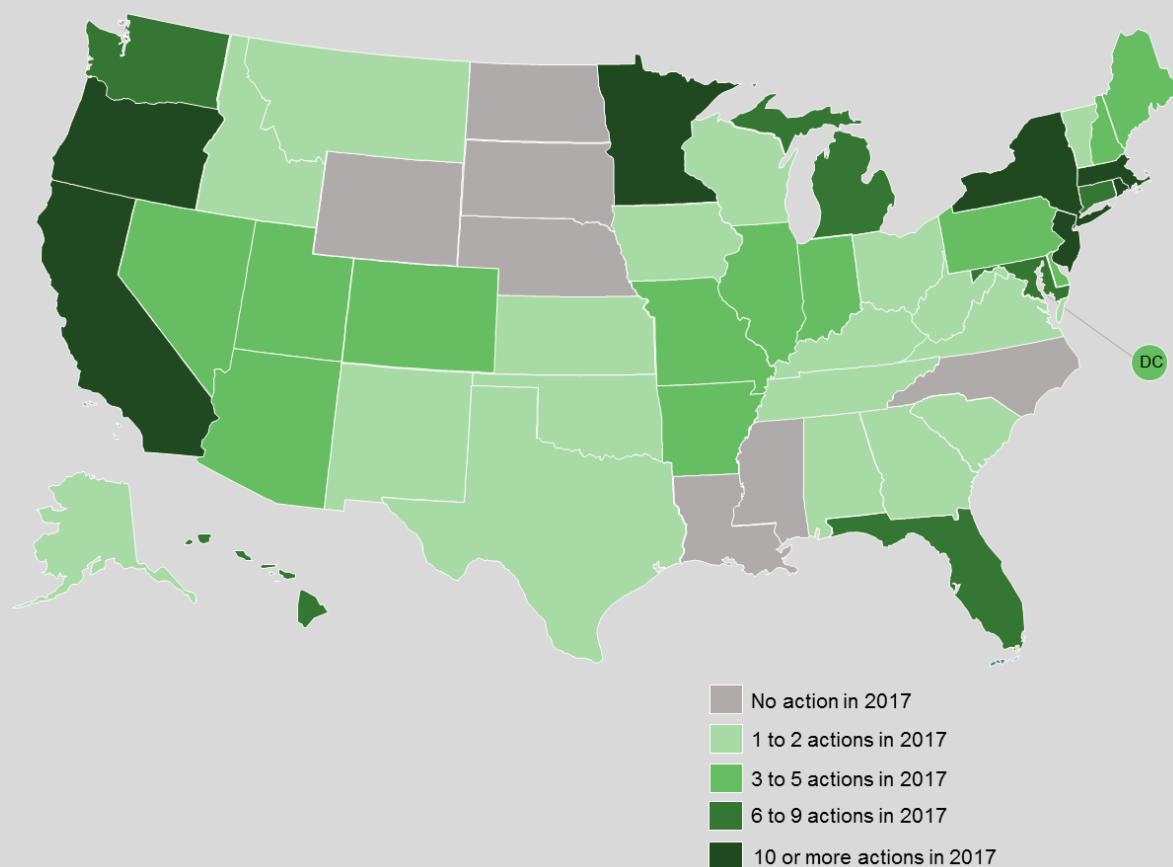
Investigation of Electric Vehicles as Part of Broader Grid Modernization Efforts

As many states initiate broad investigations into grid modernization, electric vehicles are frequently being addressed in these discussions. Working groups or presentations related to electric vehicles were included as part of several of these proceedings, including those in Illinois, Maryland, Ohio, and Rhode Island.

Funding for Electric Vehicle Infrastructure Moving Beyond Level 2 Charging

Funding for electric vehicle charging infrastructure is moving beyond support for Level 2 charging, with several states and utilities considering new funding for DC fast charging. Efforts to fund medium- and heavy-duty electric vehicles are also underway, as broader electrification of the transportation sector is considered.

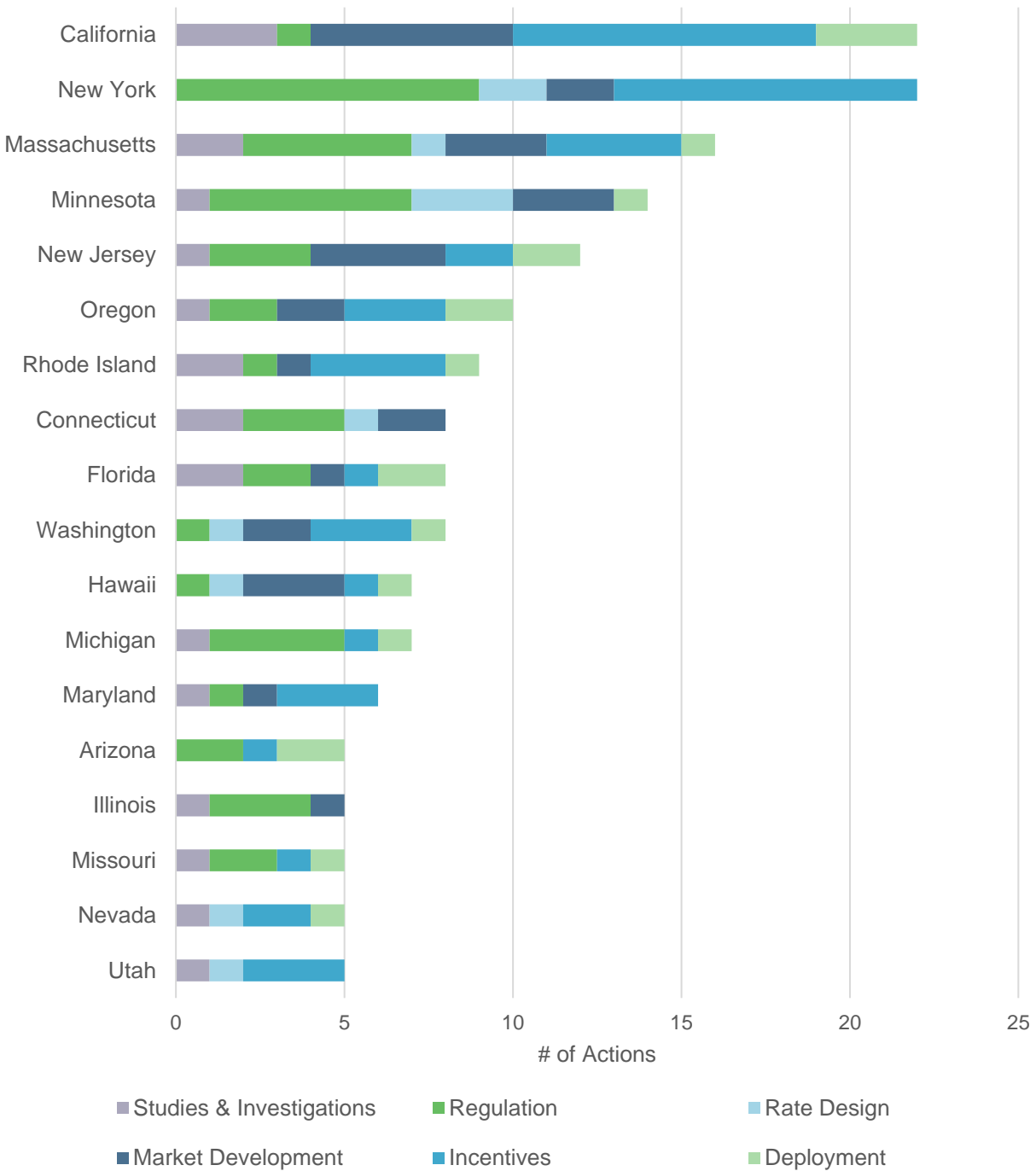
Figure 1. 2017 Legislative and Regulatory Action on Electric Vehicles



Utilities Proposing Dedicated Electric Vehicle Charging Rates

Increasing attention is being paid to rate design for electric vehicle charging, with utilities working to encourage electric vehicle owners to charge their vehicles during periods of low system peak demand, while avoiding charging during periods of peak demand. Several utilities proposed new charging tariffs or the extension of pilot tariffs during 2017, while some states are directing utilities to develop tariffs for electric vehicle charging.

Figure 2. Most Active States of 2017



Expanding Incentives for Electric Vehicles and Charging Infrastructure

States and utilities took a total of 53 actions related to electric vehicles and charging infrastructure during 2017. While a small number of these actions aimed to reduce or shorten existing incentive programs, the majority of these actions would create new financial incentives, or extend or expand the eligibility requirements for existing incentive programs.

States Considering Additional Fees for Electric Vehicle Owners

The most common type of action taken in 2017 was the consideration of additional fees for electric vehicles. Many states are facing declining gasoline tax revenue, due to increasing vehicle efficiency and adoption of alternative fuel vehicles, and are looking to make up this shortfall by establishing additional registration or other fees for electric and hybrid vehicles.

Figure 3. Top Electric Vehicle Actions of 2017

