

50 STATES OF ELECTRIC VEHICLES

Q2 2019 Quarterly 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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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

Q2 2019 ELECTRIC VEHICLE ACTION

In Q2 2019, 43 states plus DC took a total of 425 actions related to electric vehicles. Table 1 provides a summary of state and utility actions occurring during Q2 2019. Of the 425 actions catalogued, the most common were related to Regulation (109), followed by Financial Incentives (99), and Market Development (88).

Table 1. Q2 2019 Summary of Electric Vehicle Actions

| Type of Action | # of Actions | % by Type | # of States |
|----------------------------|--------------|-------------|-----------------------|
| Regulation | 109 | 26% | 40 |
| Financial Incentives | 99 | 23% | 28 + DC |
| Market Development | 88 | 21% | 24 + DC |
| Deployment | 50 | 12% | 20 + DC |
| Studies and Investigations | 47 | 11% | 29 + DC |
| Rate Design | 32 | 8% | 21 + DC |
| Total | 425 | 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 ACTIONS OF Q2 2019

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

Electric Vehicle Study Completed in Vermont, New Study Initiated

The Vermont Public Utility Commission (PUC) released its final electric vehicle report in June 2019, following a year-long investigatory proceeding. The report includes numerous recommendations for government, utilities, and third parties. State lawmakers also enacted a bill in June 2019 that directs the PUC to prepare a report on additional specific issues related to electric vehicles, including tariff designs and fees to support transportation infrastructure.

Regulators Approve Electric Vehicle Programs for Pepco, Delmarva, and DTE

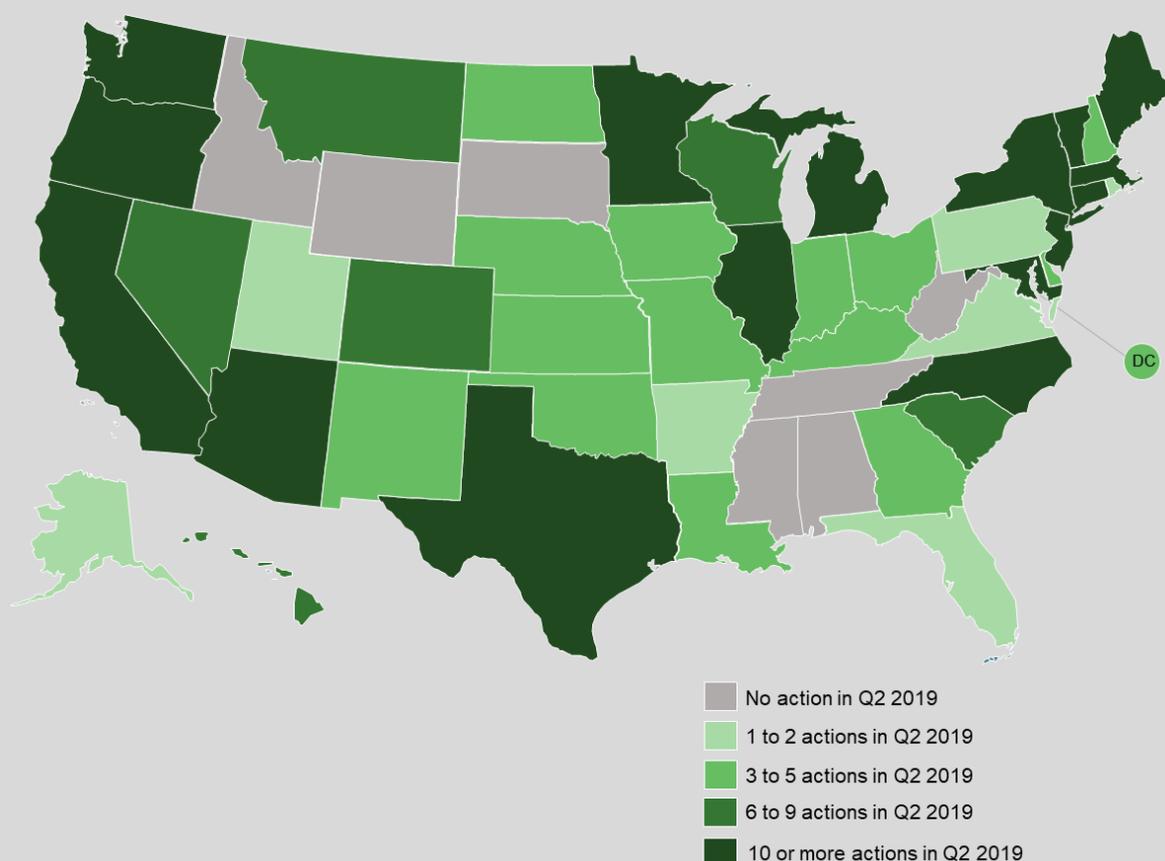
Regulators in DC, Delaware, and Michigan approved electric vehicle investment and rate plans for Pepco, Delmarva Power & Light, and DTE Electric, respectively, during Q2 2019. Programs proposed by Delmarva and DTE were approved in full, while DC regulators partially approved

Pepco's program and opened a new proceeding to continue working on the transportation electrification program.

Minnesota Utilities File Transportation Electrification Plans

Minnesota Power, Otter Tail Power, and Xcel Energy filed transportation electrification plans in June 2019, pursuant to the Public Utilities Commission's February directive. The plans include new rate options for residential, commercial, and DCFC vehicle charging, as well as deployment of utility-owned charging infrastructure and investments in fleet electrification.

Figure 1. Q2 2019 State and Utility Action on Electric Vehicles



Hawaii and Maine Lawmakers Approve New Electric Vehicle Rebate Programs

Legislators in Hawaii and Maine enacted bills creating new electric vehicle rebate programs during Q2 2019. In Hawaii, the Public Utilities Commission will administer the program, which will provide rebates of \$4,500 for Level 2 charging stations and \$35,000 for DC fast chargers developed for public, commercial, or multi-family use. Rebate amounts for Maine's new program will be determined by Efficiency Maine.

Seven States Exempt Charging Stations from Public Utility Regulation

Policymakers or regulators in seven states took actions exempting electric vehicle charging stations from public utility regulation in Q2 2019. Lawmakers in Missouri, Montana, New Mexico, North Carolina, and Vermont passed bills establishing this exemption, while utilities commissions in Kentucky and Iowa issued decisions to clarify that charging stations do not fall under their jurisdiction.

Figure 2. Top Electric Vehicle Actions of Q2 2019

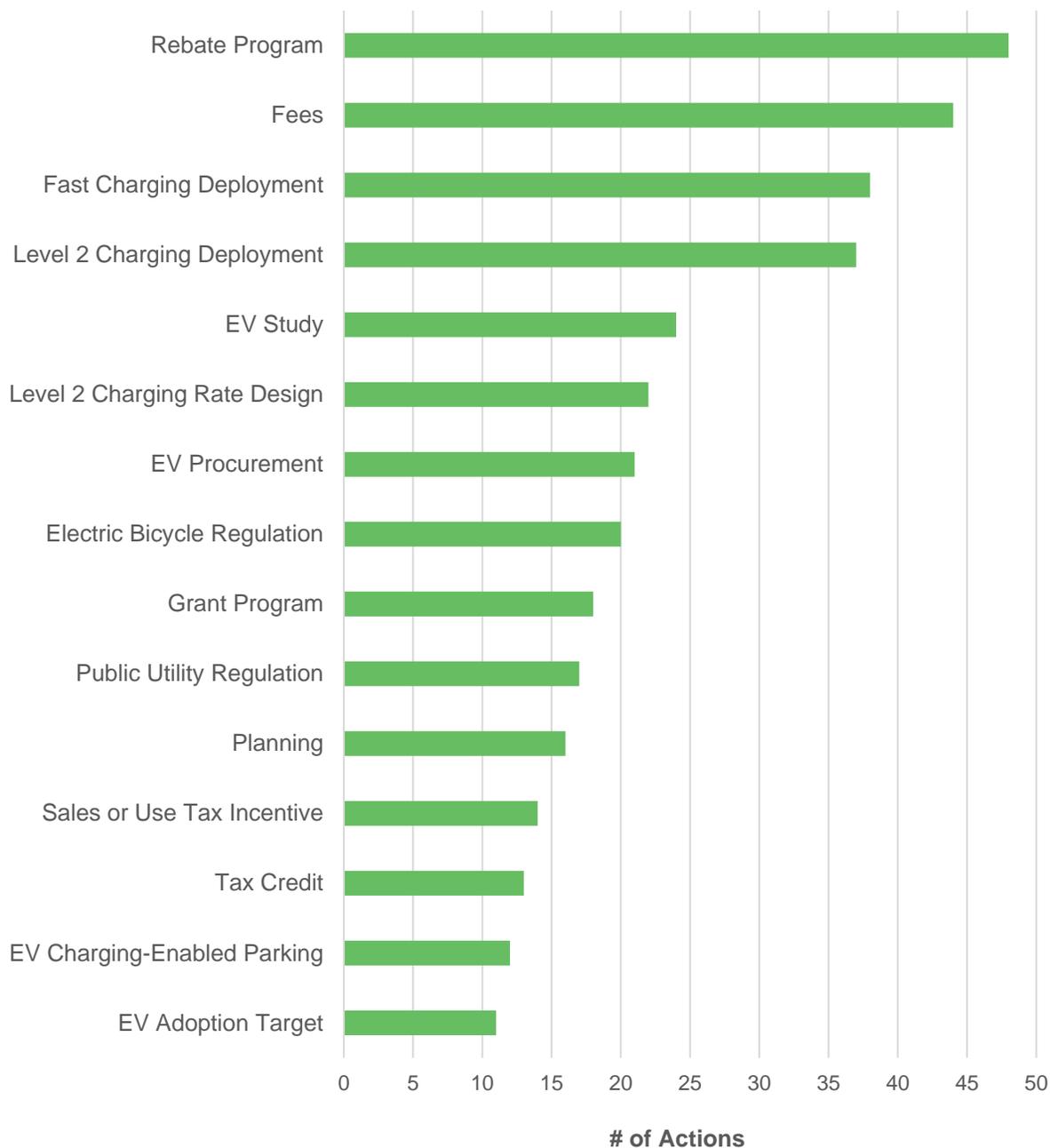
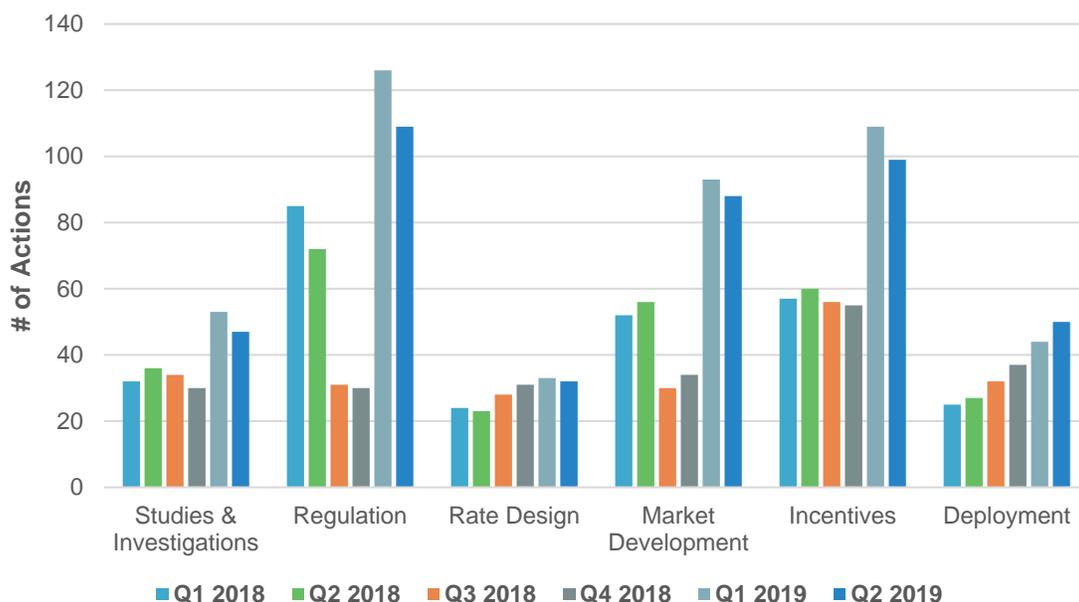


Figure 3. Electric Vehicle Action by Category, Q1 2018 to Q2 2019



TOP ELECTRIC VEHICLE POLICY TRENDS OF Q2 2019

States Establishing Guidelines for Utility Transportation Electrification Plans

Recently, several states have been authorizing or directing utilities to file transportation electrification plans and developing guidelines for such plans. These plans often include a combination of direct utility infrastructure deployment, incentive programs, new rate options, and customer education and outreach. In Minnesota, the Public Utilities Commission directed utilities to file transportation electrification plans by June 30th, while Arizona regulators recently adopted an electric vehicle policy implementation plan that directs utilities to develop a joint, comprehensive transportation electrification plan by December 31st. In Oregon, regulators approved rules for transportation electrification plans in April 2019. Legislation enacted in New Mexico directs utilities to file transportation electrification plans by January 2021, while a bill enacted in Washington authorizes utilities to file transportation electrification plans.

States Exempting Electric Vehicle Charging Stations from Public Utility Regulation

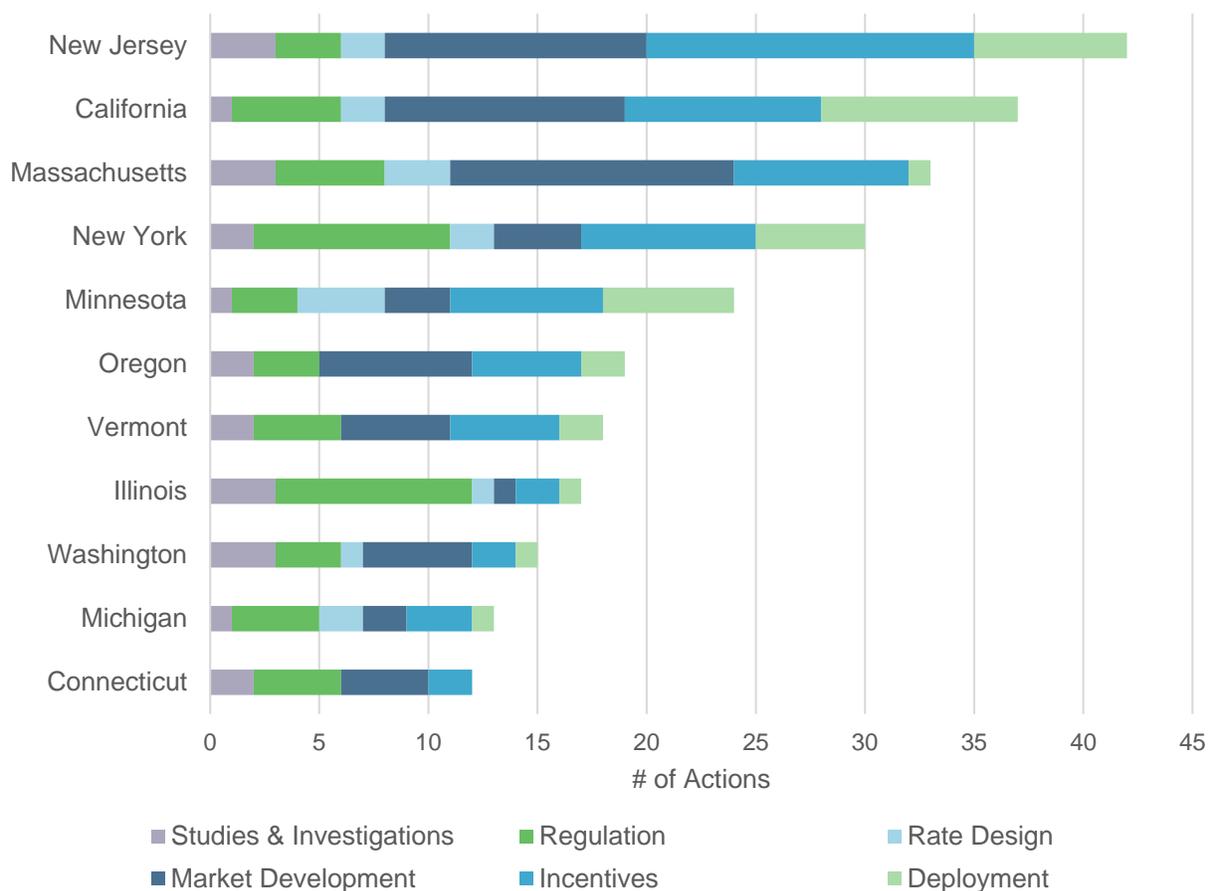
Seven states have established exemptions from public utility regulation for electric vehicle charging stations so far in 2019. At least 32 states have adopted such an exemption in at least certain jurisdictions, which reduces regulatory burden and typically allows charging station owners to charge users by the kWh for electricity consumed. Five of the exemptions approved in 2019 (in Missouri, Montana, New Mexico, North Carolina, and Vermont) were the result of legislation, while two exemptions (in Kentucky and Iowa) were affirmed by regulators. Notably, Montana's legislation exempts charging stations from classification as public utilities,

but prohibits owners from charging users by the kWh. While these exemptions are fairly non-controversial, other related issues are proving more contentious. For example, in Iowa, regulators are now considering whether charging stations covered by the regulatory exemption should be required to purchase electricity from the incumbent utility.

Policymakers Setting Targets for Zero-Emission State Fleet Vehicles

Policymakers in multiple states have recently adopted requirements for the procurement of zero-emission or electric vehicles by state agencies. Oregon lawmakers approved a requirement for 25% of new light-duty state vehicles to be zero-emission vehicles by 2025, while the Vermont General Assembly enacted legislation requiring 50% of vehicles purchased or leased by the Department of Buildings and General Services to be hybrid or plug-in electric vehicles. In Maryland, all school buses purchased by county boards of education must be zero-emission vehicles beginning in October 2022. The New York State Senate has passed a bill requiring all passenger vehicles purchased by the state to be zero-emission vehicles by 2030, and other bills adopting zero-emission vehicle procurement targets remain under consideration in Massachusetts and New Jersey.

Figure 4. Most Active States of Q2 2019



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

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