

# 50 STATES OF ELECTRIC VEHICLES

**Q2 2020 Quarterly Report**

Executive Summary



**NC CLEAN ENERGY**  
TECHNOLOGY CENTER

**August 2020**

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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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## PREFERRED CITATION

North Carolina Clean Energy Technology Center, *The 50 States of Electric Vehicles: Q2 2020 Quarterly Report*, August 2020.

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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 2020 ELECTRIC VEHICLE ACTION

In Q2 2020, 43 states plus DC took a total of 357 actions related to electric vehicles. Table 1 provides a summary of state and utility actions occurring during Q2 2020. Of the 357 actions catalogued, the most common were related to Financial Incentives (90), followed by Regulation (77) and Market Development (77).

**Table 1. Q2 2020 Summary of Electric Vehicle Actions**

Type of Action	# of Actions	% by Type	# of States
Financial Incentives	90	25%	24
Regulation	77	22%	29
Market Development	77	22%	21 + DC
Studies and Investigations	43	12%	27
Deployment	37	10%	20 + DC
Rate Design	33	9%	19 + DC
<b>Total</b>	<b>357</b>	<b>100%</b>	<b>43 States + DC</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 Q2 2020

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

### Colorado Utilities File Transportation Electrification Plans

In May 2020, Black Hills Electric and Xcel Energy filed Transportation Electrification Plans with the Colorado Public Utilities Commission. Both plans include a variety of time-varying rates or charging optimization incentives, as well as charging station rebates for different end users. Xcel's plan also includes utility-owned charging infrastructure. The plans were filed in response to S.B. 19-077.

### California Air Resources Board Adopts Zero-Emission Truck Standards

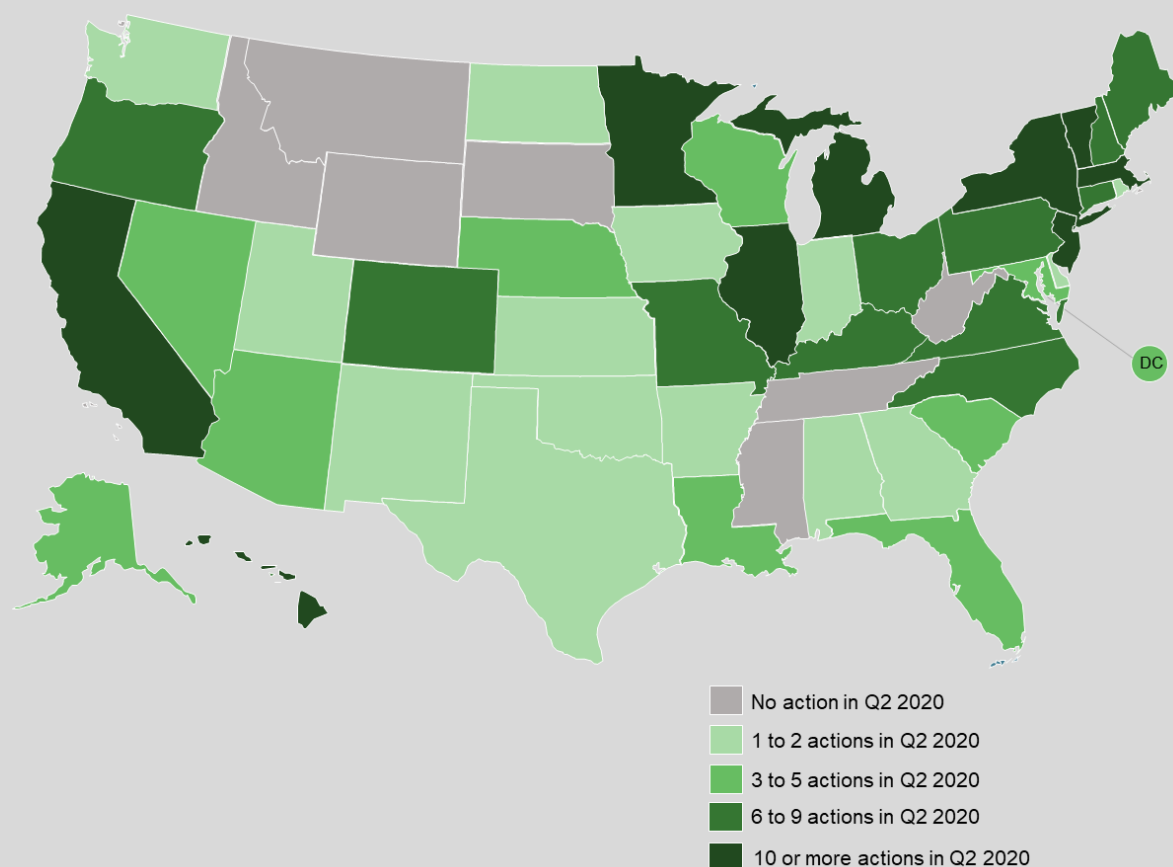
The California Air Resources Board adopted rules in June 2020 requiring every new truck sold in the state of California to be zero-emission by 2045. Truck manufacturers would be required to begin transitioning from manufacturing diesel-fueled vehicles to zero-emission trucks

beginning in 2024. The California Air Resources Board notes that this is the first rule of its kind in the world.

### Electric Vehicle Plans Released in Colorado and Connecticut

The Colorado Energy Office and the Connecticut Department of Energy and Environmental Protection both released electric vehicle plans in April 2020. The Colorado plan outlines actions that support state electric vehicle goals. Connecticut's electric vehicle roadmap is intended to be a policy framework to accelerate electric vehicle adoption in the state and includes an array of policy recommendations.

**Figure 1. Q2 2020 State and Utility Action on Electric Vehicles**



### Ohio Department of Transportation Outlines Statewide Electric Vehicle Strategy

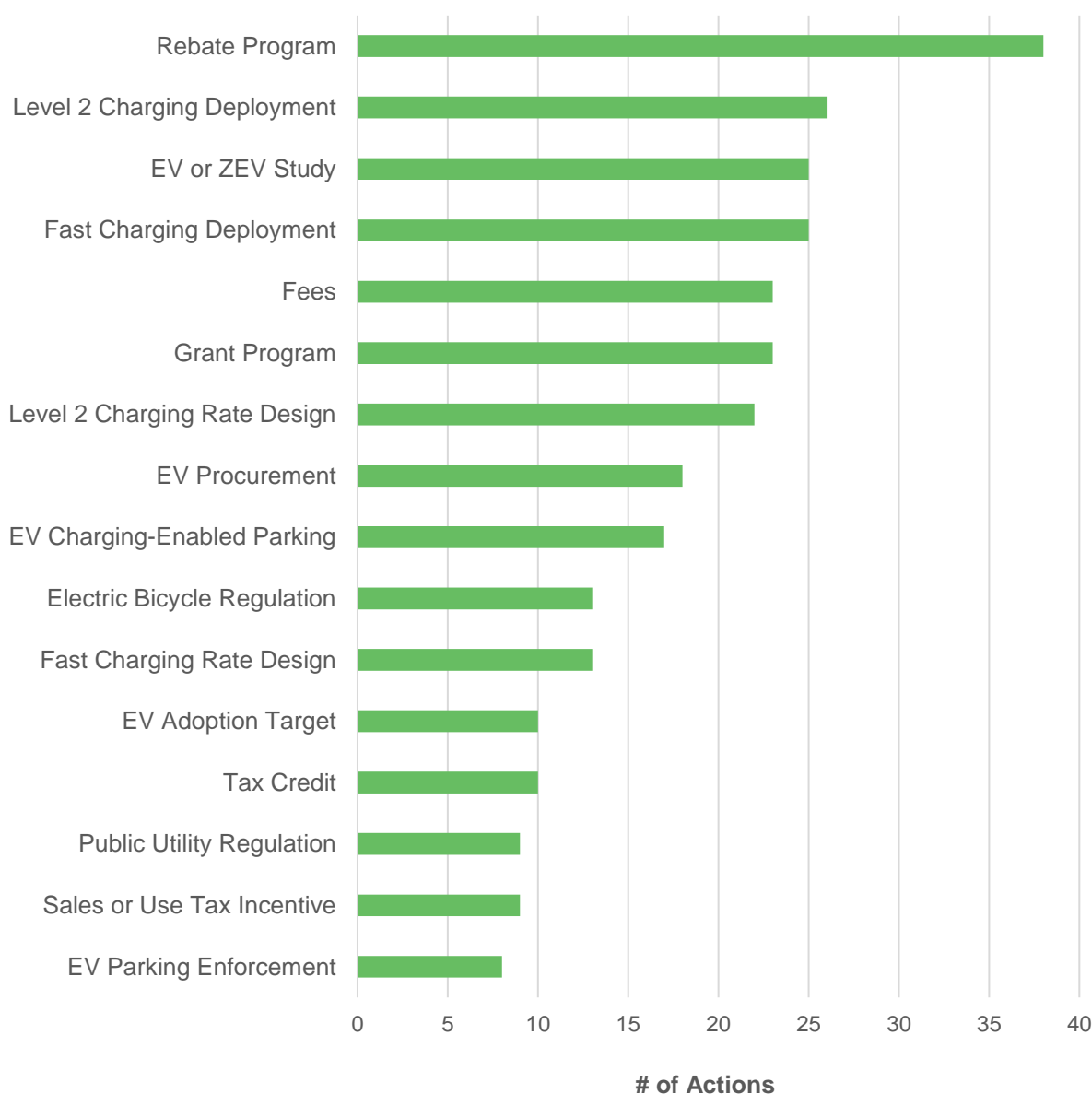
The Ohio Department of Transportation outlined a statewide electric vehicle strategy in late June 2020 with the release of its electric vehicle charging study. The study includes recommended sites for Level 2 and DC fast charging stations. In addition to the study, the Ohio

Environmental Protection Agency announced that it is offering grant funding for public Level 2 charging stations and will be offering grants for DC fast charging stations in 2021.

### Kentucky Regulators Deny Approval for Duke Energy's Electric Vehicle Pilot

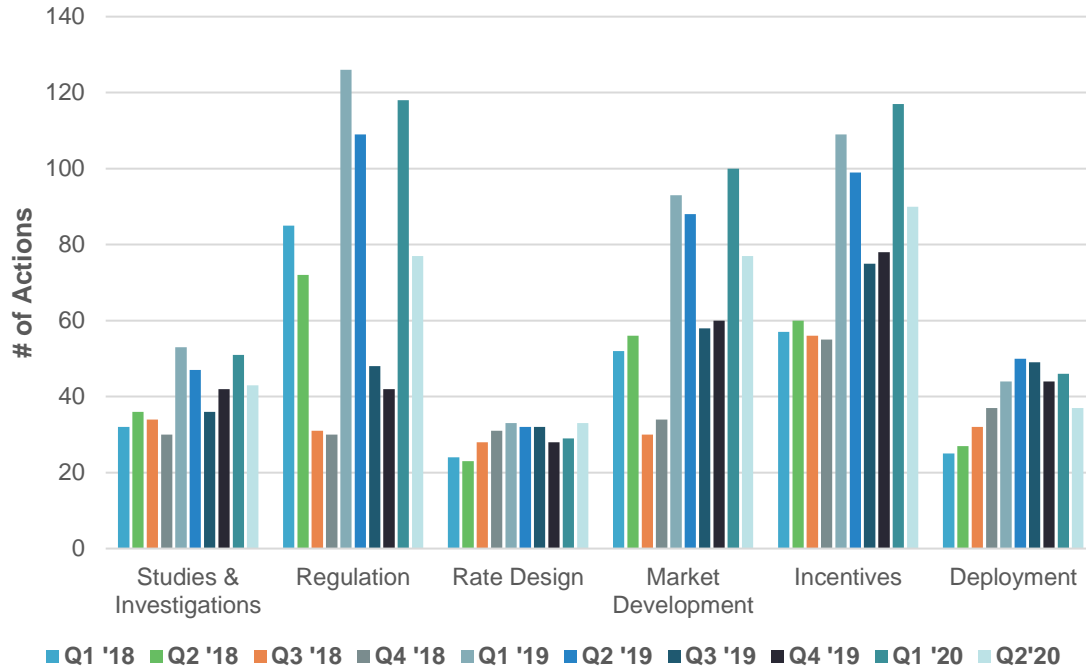
In April 2020, Kentucky regulators rejected Duke Energy Kentucky's proposed electric vehicle pilot program, which would have consisted of utility-owned fast charging and electric transit bus programs, residential and commercial charger incentives, and a non-road electrification incentive program. The Public Service Commission found that the program, which was intended to provide information on the effect of charging incentives, would not be able to collect sufficient information due to the state's limited electric vehicle market.

**Figure 2. Top Electric Vehicle Actions of Q2 2020**





**Figure 3. Electric Vehicle Action by Category, Q1 2018 to Q2 2020**



## TOP ELECTRIC VEHICLE POLICY TRENDS OF Q2 2020

### States Evaluating Appropriate Roles for Utilities and Private Entities in Charging Infrastructure Deployment

A number of states have been undertaking investigations to determine the appropriate roles for utilities and private entities in transportation electrification. In New Jersey, the Board of Public Utilities released a straw proposal regarding the roles of utilities and private entities in electric vehicle infrastructure deployment. Connecticut's Electric Vehicle Roadmap, released in April 2020, discusses ownership and investment models for public charging infrastructure, among other topics. The Virginia Corporation Commission currently has an open proceeding examining a number of transportation electrification issues, including the role of utilities in deployment of charging infrastructure. Regulators in Missouri and Wisconsin are also considering this issue as part of ongoing electric vehicle investigatory proceedings.

### States Studying and Planning for Electric Vehicle Infrastructure Needs

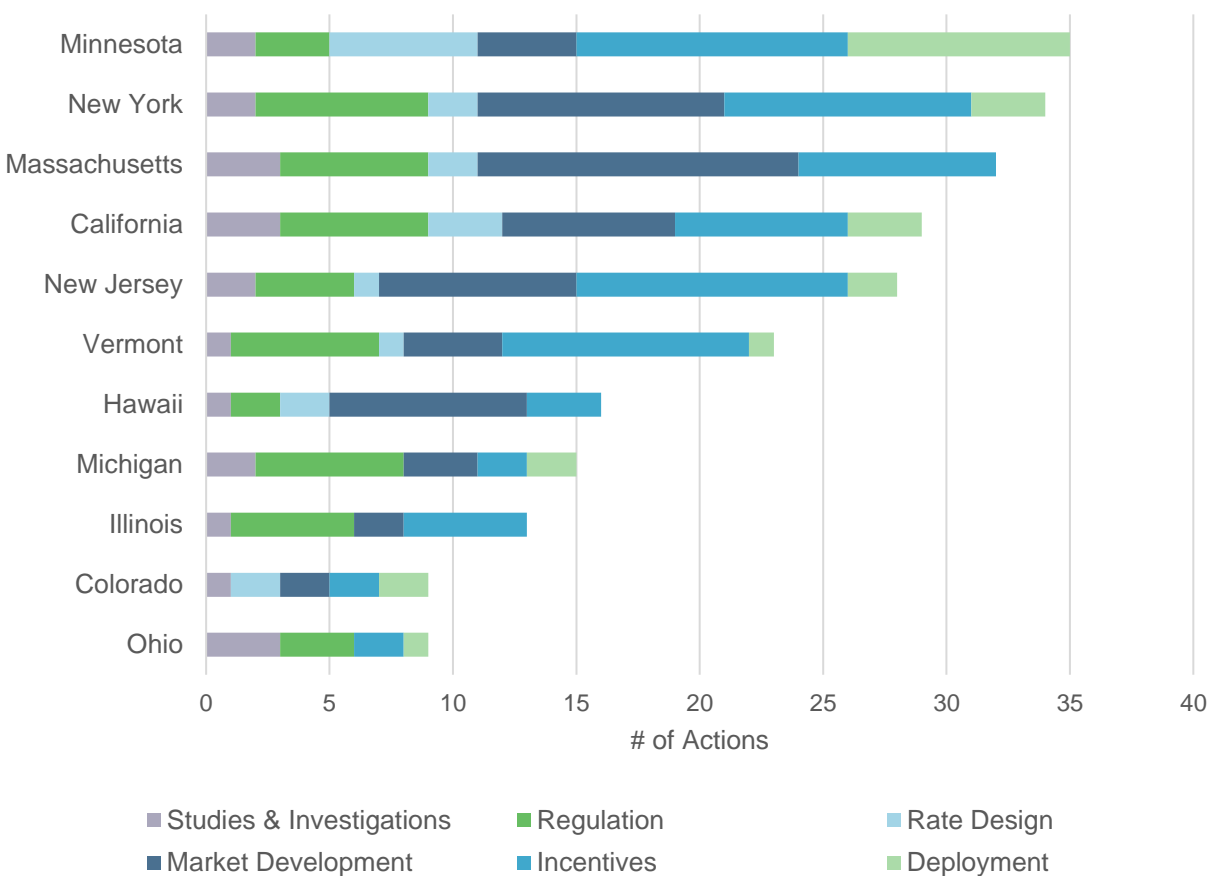
A growing number of state entities have been studying statewide electric vehicle infrastructure needs and developing detailed plans to build out this infrastructure. In Ohio, the Department of Transportation recently released a study including recommended sites for Level 2 and DC fast charging stations. Meanwhile, the Utah Department of Transportation is developing a statewide charging network plan, pursuant to legislation enacted last quarter. In Oregon, the Department of Transportation is conducting a transportation electrification infrastructure needs

analysis as a result of an executive order issued in March. The Florida Legislature enacted a bill in June 2020 directing the Department of Transportation to develop a plan for electric vehicle charging stations on state highways.

### States and Utilities Offering Electric Vehicle or Charging Station Incentives for Low-Income Customers

Many states and utilities are making efforts to expand electric vehicle access to lower income individuals by offering special electric vehicle or charging station incentives to income-qualified residents. In transportation electrification plans filed by Black Hills Electric and Xcel Energy in Colorado, the utilities proposed rebate programs targeting low-income customers and communities. The Public Utilities Commission of Nevada approved a new incentive program for NV Energy's low-income multi-family housing customers. In Virginia, state lawmakers enacted a bill requiring a working group to determine the feasibility of an electric vehicle rebate program, including potential special provisions for low-income individuals. Low-income customer rebate programs are also being considered or implemented in a number of other states, including New York, Oregon, and Vermont.

**Figure 4. Most Active States of Q2 2020**



# 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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Subscription Type	Annual Subscription	Single Report
<b>50 States of Electric Vehicles Report</b>	\$1,500	\$500
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<b>All-Tech Subscription</b> <i>(Includes 50 States of Electric Vehicles report, 50 States of Solar report, &amp; 50 States of Grid Modernization report; plus biweekly legislative &amp; regulatory tracking; policy data sheets, &amp; quarterly webinars for solar, grid modernization/energy storage, &amp; electric vehicles)</i>	\$10,500	N/A

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