

# 50 STATES OF ELECTRIC VEHICLES

Q1 2019 Quarterly Report



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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: Q1 2019 Report*, May 2019.

## COVER DESIGN CREDIT

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## PREVIOUS EDITIONS AND OTHER 50 STATES REPORTS

Previous executive summaries and older editions 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 at [here](#). Executive summaries and older editions of these reports are available for download [here](#).

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## GLOSSARY OF ABBREVIATIONS

ALJ	Administrative Law Judge
d/b/a	Doing Business As
DC	Direct Current
DER	Distributed Energy Resource
DG	Distributed Generation
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
HOV	High Occupancy Vehicle
IOU	Investor-Owned Utility
IRP	Integrated Resource Plan
GW	Gigawatt
kW	Kilowatt
kWh	Kilowatt-hour
MW	Megawatt
PEV	Plug-In Electric Vehicle
PHEV	Plug-In Hybrid Electric Vehicle
PV	Photovoltaics
REC	Renewable Energy Credit or Certificate
RPS	Renewable Portfolio Standard
TOU	Time-of-Use
ZEV	Zero-Emission Vehicle

# OVERVIEW

## 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 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 and 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) an executive order, or (3) a 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.

## TRANSPORTATION ELECTRIFICATION IN THE U.S.

In 2016, greenhouse gas emissions from the transportation sector surpassed electric power sector emissions for the first time since the late 1970s. The transportation sector continued as the largest contributor to carbon emissions in the U.S. during 2017 and 2018 (in comparison to the electric power, residential, commercial, industrial, agriculture, and manufacturing sectors).<sup>1</sup> Although this shift is based on many factors, it underscores the need to improve the efficiency and emissions profiles of the transportation sector. One approach to this concern has been to increase the use of electricity for providing transportation sector energy, while simultaneously shifting electricity generation toward cleaner sources.

### The U.S. Electric Vehicle Market

The U.S. reached a new milestone with more than one million electric vehicles on the road as of November 2018. Over the past year, approximately 360,000 electric vehicles were sold in the U.S., compared to 200,000 in 2017.<sup>2,3</sup> Automakers, like Toyota and Volkswagen, continue to announce plans to manufacture new, all-electric models. These companies are setting goals to offer more vehicle models and expand production of electric vehicles with more moderate prices within the next three to five years.

Electric vehicle sales represent approximately 1.7% of all light-duty vehicle sales in the US.<sup>4</sup> Although total electric vehicle sales remain relatively low when compared to total vehicle sales, there are large regional differences. For example, more than 7.8% of vehicles sold in California were battery electric vehicles or plug-in hybrid electric vehicles, and there are 30 cities in California where electric vehicle sales exceed 10%.<sup>5</sup> It took more than eight years to sell one million electric vehicles in the United States, but analysts expect that the next million will be sold in less than three years.<sup>6</sup>

Beyond price, charging infrastructure availability and range anxiety\* remain barriers to consumer adoption of electric vehicles. As battery technology and associated vehicle designs and technologies improve, vehicle ranges are increasing, but the lack of more widespread charging infrastructure remains a deterrent to greater market acceptance in most parts of the country. While market factors play a large role in this, legal and regulatory barriers are also affecting the pace and location of infrastructure development.

### Electric Vehicles and the Grid

Although electric vehicle sales represent only approximately 1.7% of all light-duty vehicle sales in the U.S., states and electric utilities are already examining the potential impacts of and opportunities for electric vehicles on the grid. The integration of electric vehicles into the electric system is a growing field of research, including vehicle-to-grid technologies, grid demand management, renewable energy integration, and more.

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\* "Range anxiety" refers to the fear that an electric vehicle will run out of power before reaching the destination or a charging station.



Many utilities are currently exploring the potential for electric vehicles to impact load growth in the future, to provide ancillary services, and to provide opportunities for customer engagement. Although other end-uses for electricity are not growing rapidly, and some are even projected to stay flat or decline in the coming years, transportation electrification appears to be a major potential growth area for utility companies, causing an increasing number of utilities to focus on what they can do to invest in and benefit from this growth.

## OVERVIEW OF Q1 2019 POLICY CHANGES

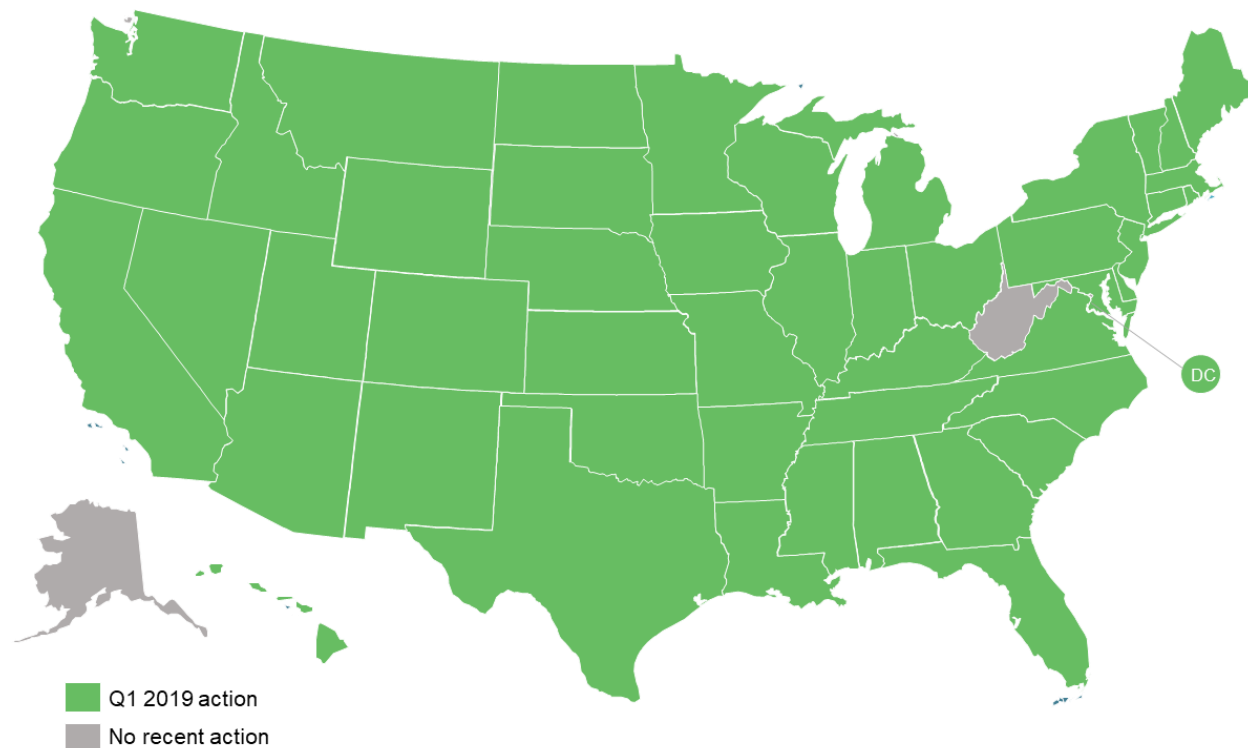
Table 1 provides a summary of state actions related to electric vehicles occurring during the first quarter of 2019. Of the 458 actions catalogued, the most common were those related to regulation (126), followed by financial incentives (109), and market development (93). The actions occurred in 48 states plus DC in Q1 2019 (Figure 1). Box 1 highlights some of the key actions of Q1 2019, described in greater detail in the following sections.

**Table 1. Summary of Electric Vehicle Actions (Q1 2019)**

Type of Action	# of Actions	% by Type	# of States
Regulation	126	27%	44
Financial Incentives	109	24%	28 + DC
Market Development	93	20%	23 + DC
Studies and Investigations	53	12%	32 + DC
Deployment	44	10%	19 + DC
Rate Design	33	7%	18 + DC
<b>Total</b>	<b>458</b>	<b>100%</b>	<b>48 States + DC</b>

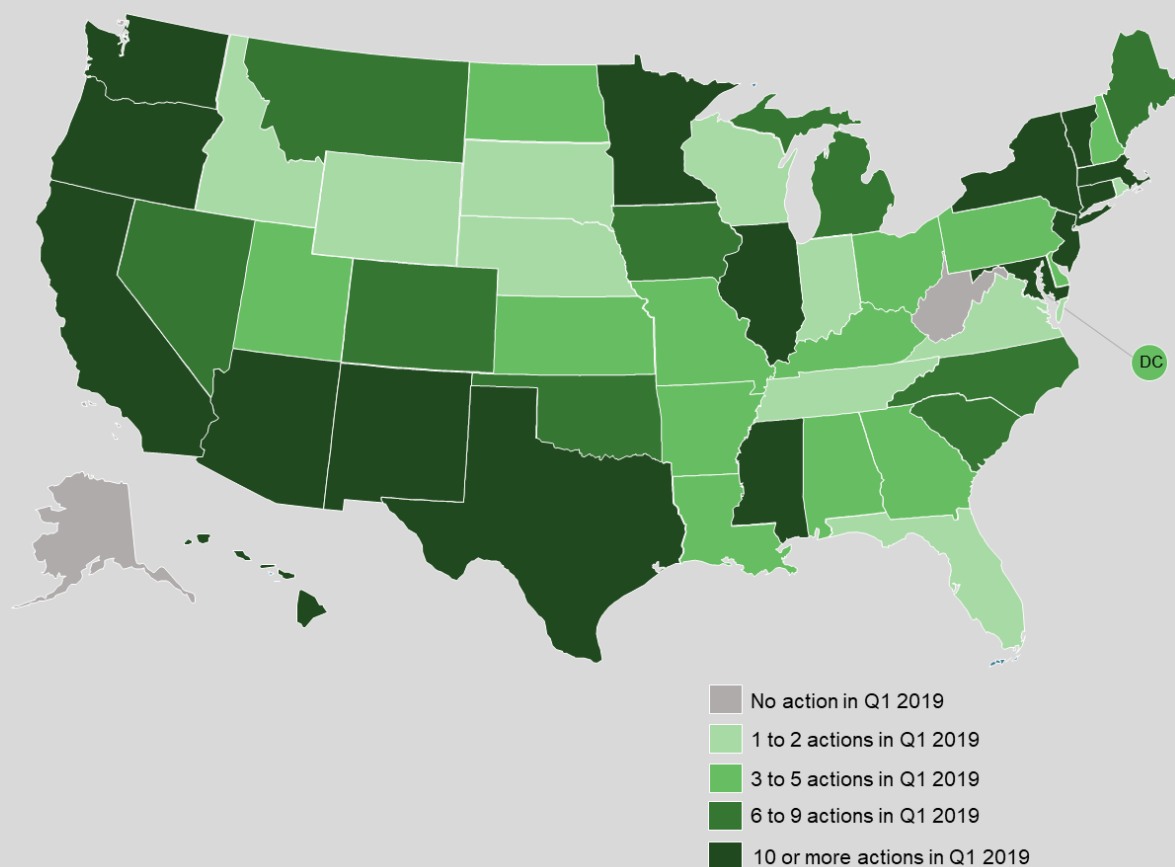
Note: The "# of States/ Districts" total is not the sum of the rows because some states have multiple actions. Percentages are rounded and may not add up to 100%.

**Figure 1. State and Utility Action on Electric Vehicles (Q1 2019)**



Electric vehicle activity increased significantly in Q1 2019, primarily due to an influx of new bills under consideration in state legislatures. A total of 458 actions were taken in Q1 2019 – more than were observed over the entirety of 2018. Activity increased over Q1 2018 by the following amounts: Studies and Investigations – 66%, Regulation – 48%, Rate Design – 38%, Market Development – 79%, Financial Incentives – 91%, and Deployment – 76%. New Jersey, California, and Massachusetts took the greatest number of actions during the quarter, each considering more than 30 actions (see Figure 5).

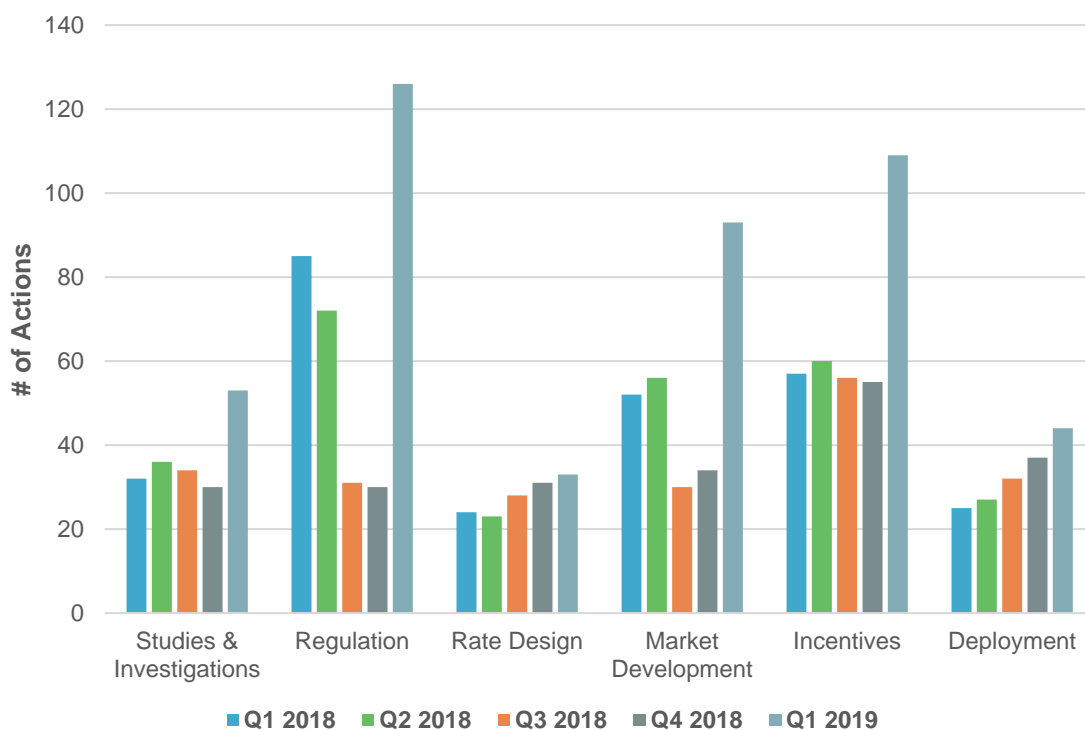
**Figure 2. Q1 2019 Action on Electric Vehicles, by Number of Actions**



The most common types of electric vehicle actions taken in Q1 2019 related to additional fees for electric vehicles, rebate programs for electric vehicles or charging stations, charging station development, and rate design options to encourage off-peak charging. Of the 458 actions taken during the quarter, the majority were legislative, with most of these bills being introduced during Q1 2019. Nearly every state (48 plus DC) took action related to electric vehicles in Q1 2019 – the greatest number yet since this report began in 2017. The largest number of states took actions related to electric vehicle fees, with at least 28 states considering bills adopting new fees or modifying existing charges. A wide array of states also considered various studies related to electric vehicles and rules pertaining to electric bicycles.

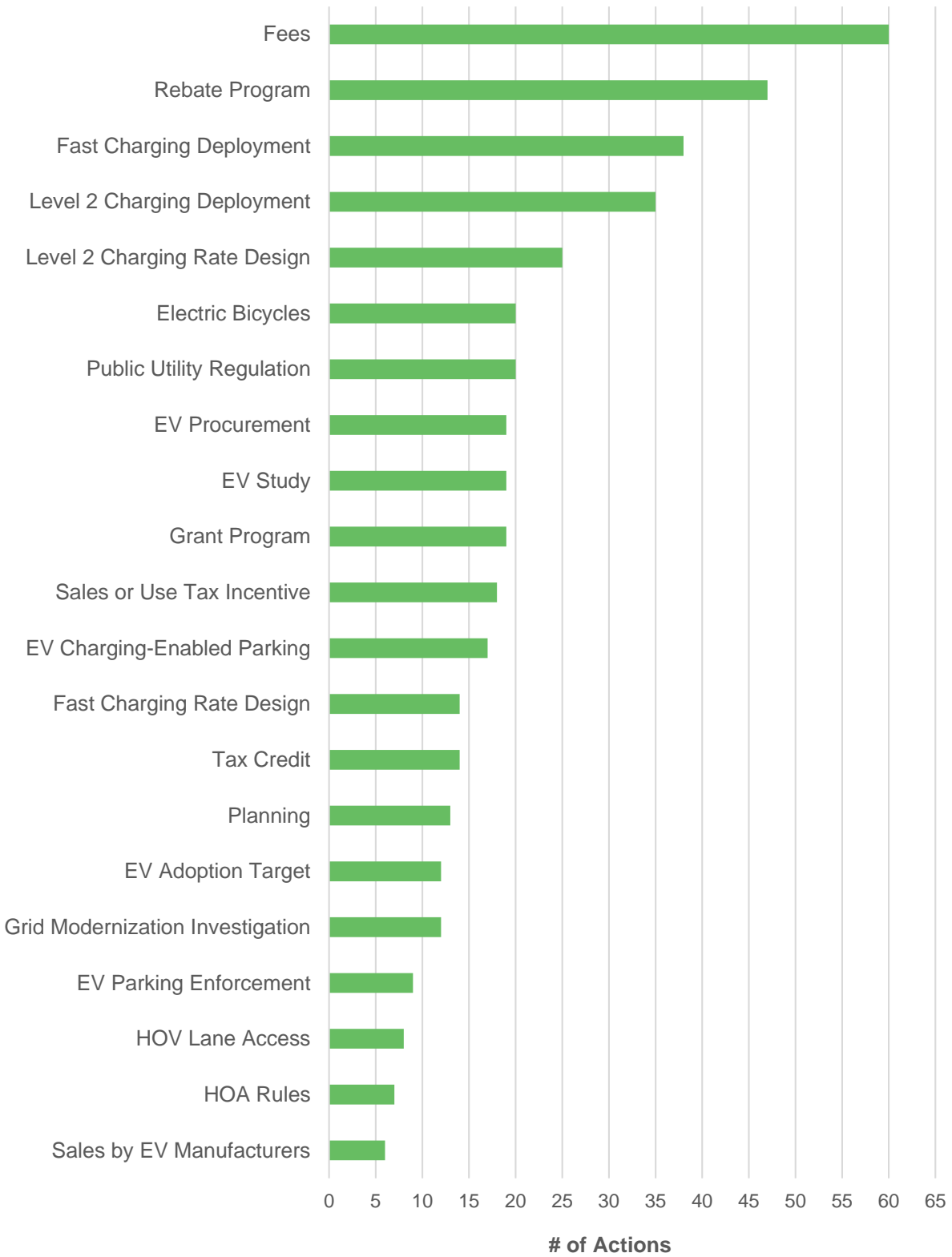
Notably, many of the states taking a large number of electric vehicle actions are states that are adopting or considering bold clean energy and renewable energy targets. California, Hawaii, New Mexico, and Washington have all committed to 100% clean or renewable electricity and are also considering significant transportation electrification initiatives. Illinois, Massachusetts, Minnesota, New Jersey, and New York are among additional states currently considering legislation adopting 100% clean energy targets. These parallel actions are indicative of growing efforts to reduce carbon emissions from both the power and transportation sectors.

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

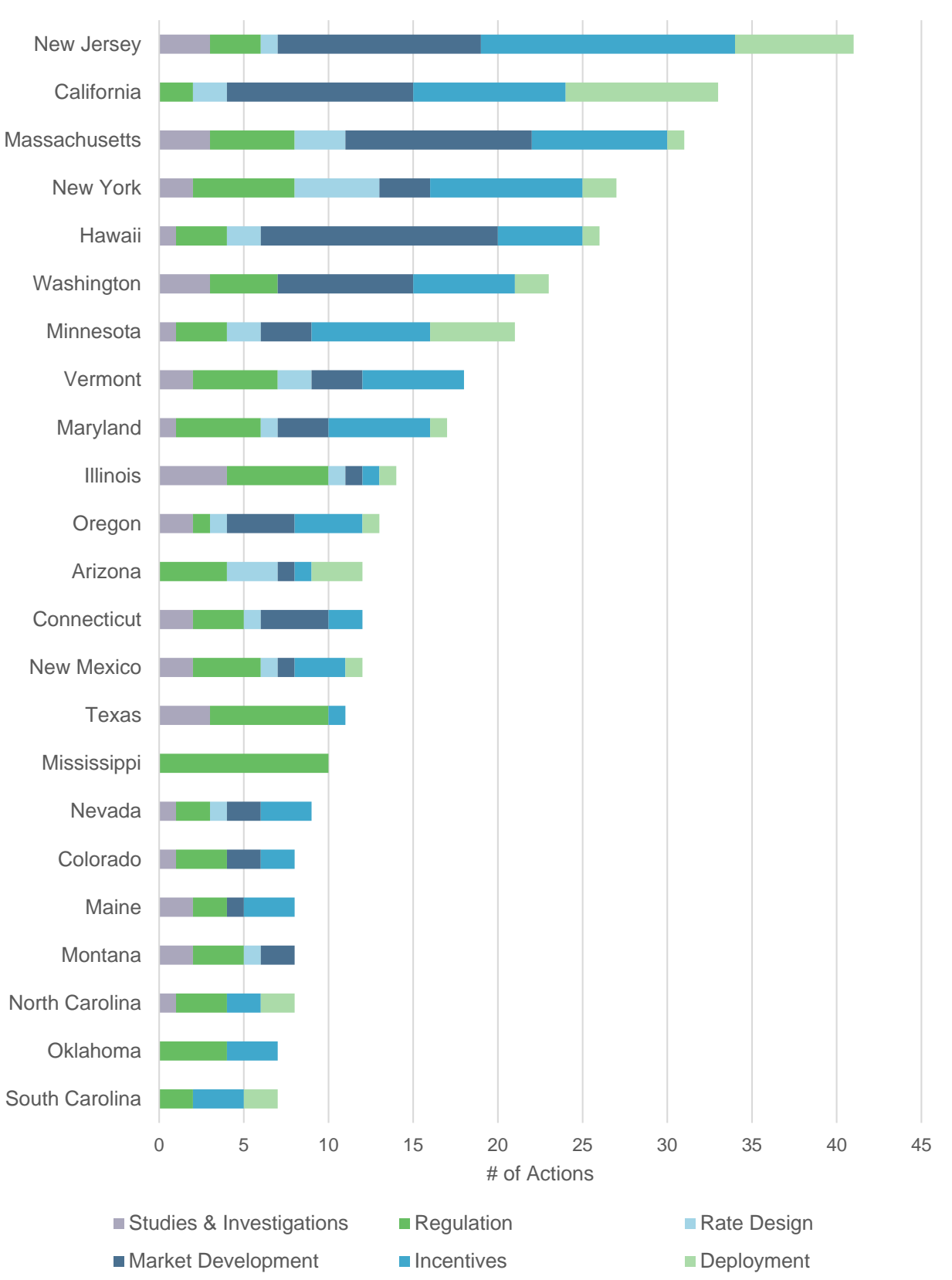


Although 458 actions related to electric vehicles were taken in Q1 2019, not all of these resulted in legislative or regulatory decisions. Figure 6 displays the most active states of Q1 2019 by the status of each action taken (I = introduced, P1/P2 = passed one or both legislative chambers, E = enacted, and D = dead). For the purposes of this graph, each individual action is assigned a status, so bills containing several different electric vehicle components may be counted multiple times. The graph is therefore not intended to be a precise representation, but rather to show that while some states may be considered very active, fewer actions led to policy changes or technology deployment.

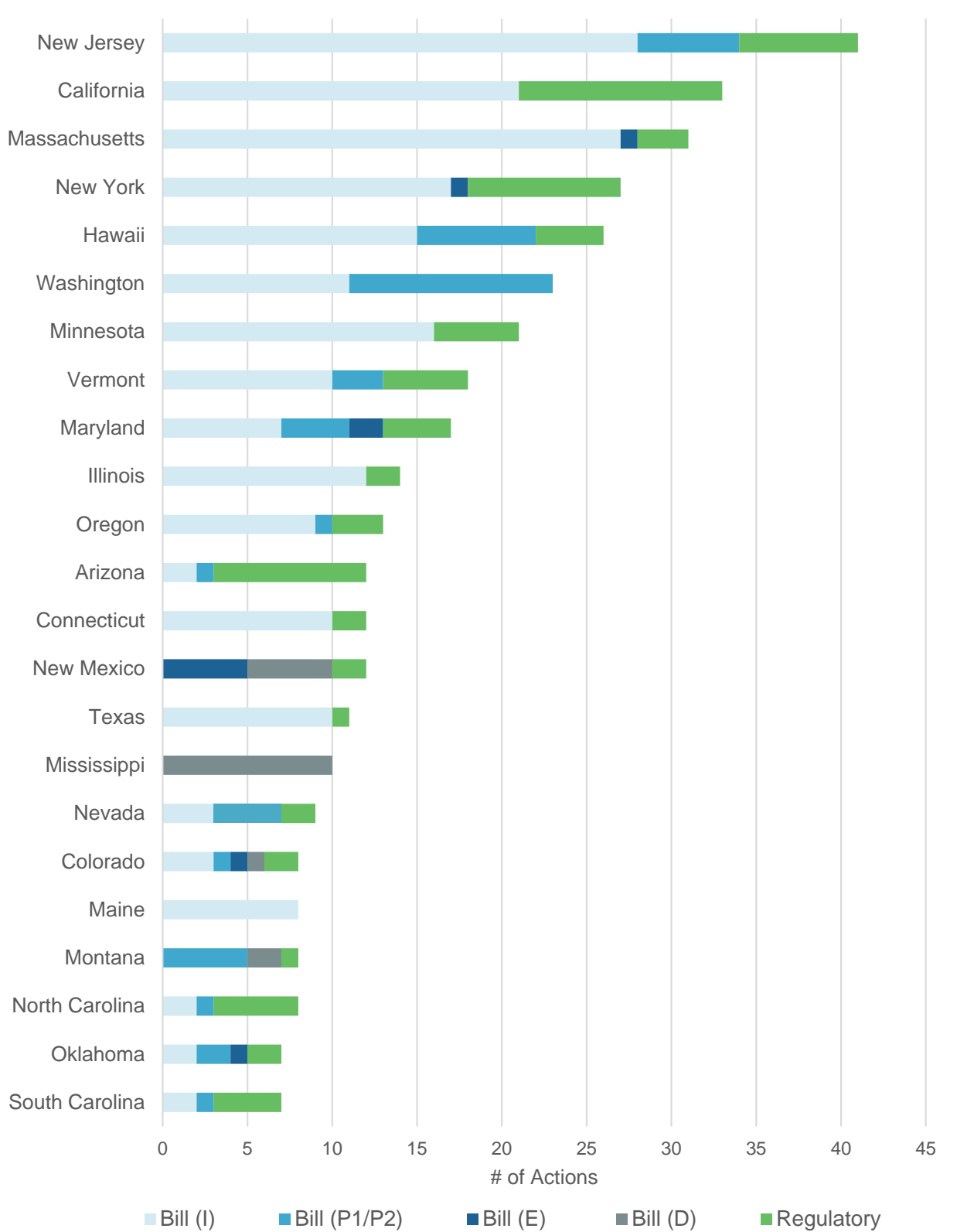
**Figure 4. Most Common Types of Actions Taken in Q1 2019**



**Figure 5. States with the Most Electric Vehicle-Related Actions in Q1 2019**



**Figure 6. Most Active States of Q1 2019, by Action Status**



## Box 1. Top Electric Vehicle Policy Actions of Q1 2019

### **Maryland Public Service Commission Approves Electric Vehicle Programs**

In January 2019, Maryland regulators approved a scaled down version of a statewide electric vehicle portfolio program developed by a working group as part of the state's grid modernization proceeding. The program as originally proposed would have deployed approximately 24,000 charging stations, while the approved program will deploy over 5,000. The program includes a combination of utility deployment, incentives, and new rate options.

### **Arizona Regulators Adopt Electric Vehicle Policy Statement**

The Arizona Corporation Commission adopted an electric vehicle policy statement in January 2019. The policy statement encourages utilities to develop new rate designs for electric vehicle charging and consider deploying charging infrastructure in low utilization areas. The Commission Staff filed a draft implementation plan in March 2019, which encourages utilities to propose pilot programs by June 1, 2019.

### **Missouri and Wisconsin Regulators Open Electric Vehicle Proceedings**

Regulators in Missouri and Wisconsin opened new investigatory proceedings related to electric vehicles in Q1 2019. Missouri's proceeding is focused on mechanisms to facilitate charging station installation, while the Wisconsin Public Service Commission is examining a wide range of electric vehicle issues, including infrastructure ownership, cost recovery, grid impacts, and rate design.

### **New Mexico Legislators Pass Transportation Electrification Bill**

In March 2019, New Mexico legislators passed a bill requiring public utilities to file transportation electrification applications by January 2021. These applications may include incentives, infrastructure deployment, rate designs, and customer education and outreach programs. The bill also exempts electric vehicle charging stations from public utility regulation. The Governor signed the bill into law in early April 2019.

### **Five States Adopt or Increase Electric Vehicle Registration Fees**

Legislatures in four states – Alabama, Arkansas, Kansas, North Dakota – adopted new registration fees for electric vehicles in Q1 2019 or early Q2 2019, while another state – Wyoming – increased its electric vehicle registration fee. Fees in Alabama, Arkansas, and Wyoming are now \$200 for electric vehicles and \$100 for hybrid vehicles, while Kansas is requiring a \$100 fee for electric vehicles and \$50 for hybrids, and North Dakota approved a \$120 fee for electric vehicles and \$50 for hybrids.



## Box 2. Top Electric Vehicle Policy Trends of Q1 2019

### **States Considering Aggressive Electric Vehicle and Zero-Emission Vehicle Targets**

While state-level momentum toward 100% clean or renewable energy targets is quickly picking up, a similar movement is beginning to emerge in the transportation sector. A bill considered in Hawaii bans the sale of new vehicles with internal combustion engines beginning in 2030, while an Oregon bill prohibits the registration of new non-electric vehicles in highly populated counties beginning in 2035. Many other states are considering electric or zero-emission vehicle requirements for state fleets. Bills in Massachusetts, New Hampshire, and Washington set target dates for all new state vehicles to be electric or zero-emission vehicles, while bills in Connecticut and Rhode Island establish dates by which 50% of new state vehicles are to be zero-emission vehicles.

### **Regulators Examining Ownership Models for Charging Infrastructure**

Regulators in several states are evaluating different ownership models for electric vehicle charging infrastructure, and particularly the appropriate role for utilities in charging station build-out. The Missouri Public Service Commission opened a new proceeding in February 2019 to evaluate different ownership options, including a model where utilities own and operate charging stations, a make-ready model, and an incentive approach. The Wisconsin Public Service Commission also opened a new proceeding in Q1 2019 to examine a number of electric vehicle issues, including infrastructure ownership and operation. In Maryland, the Public Service Commission considered these issues in a recent decision, allowing utilities to own and operate a limited number of charging stations in order to jumpstart the development of a public charging network.

### **State Legislatures Addressing Transportation Infrastructure Funding**

Transportation infrastructure funding was a major issue under consideration across the country during Q1 2019, with legislatures in at least 28 states considering the adoption of additional fees for electric vehicles to compensate for reduced gasoline tax revenue. In Q1 2019 or early Q2 2019, five states – Alabama, Arkansas, Kansas, North Dakota, and Wyoming – adopted additional registration fees for electric vehicles. These fees range from \$100 to \$200 for all-electric vehicles and \$50 to \$100 for plug-in hybrid vehicles. A few states, including Nevada and Vermont, are considering per-kWh charges on electricity used for vehicle charging, and some states are evaluating vehicle miles traveled fees. Other states are considering studies to examine the impact of increased electric vehicle adoption on gasoline tax revenues and options to compensate for this decreased tax revenue.

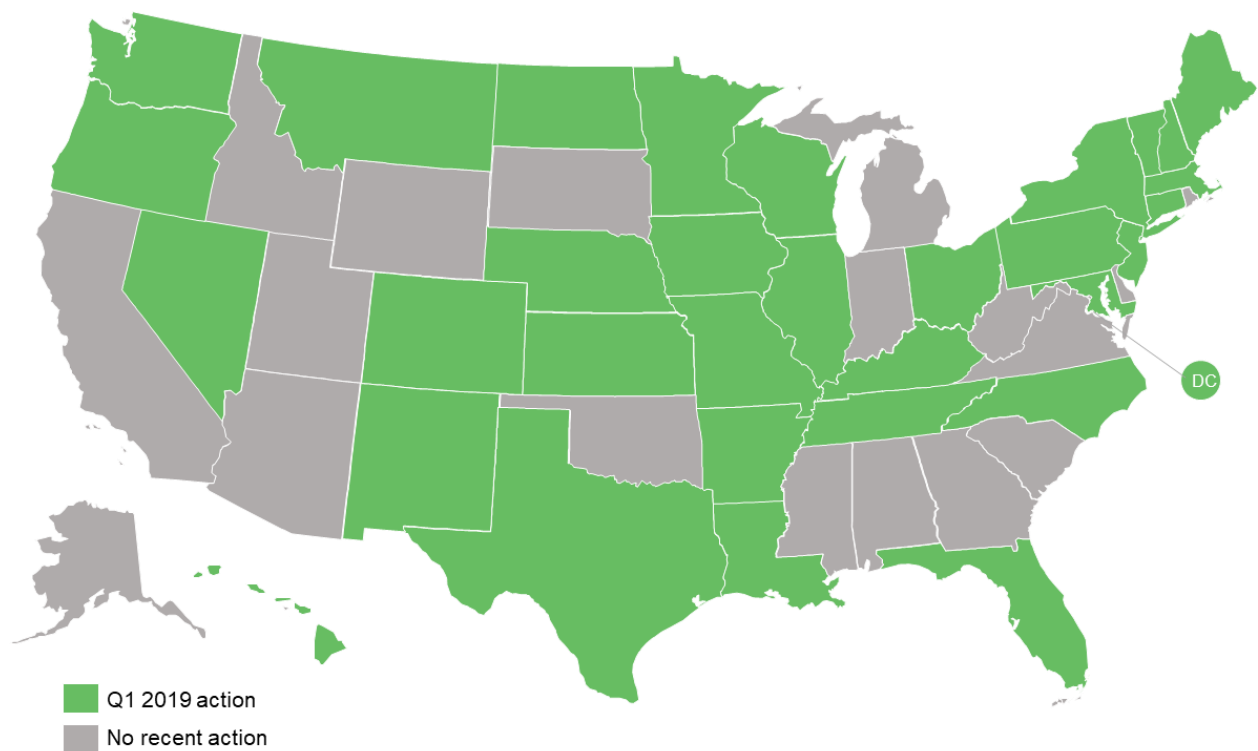
## STUDIES AND INVESTIGATIONS

### Key Takeaways:

- In Q1 2019, 32 states plus DC took action to study or investigate issues related to electric vehicles.
- Three states – Colorado, Pennsylvania, and Tennessee – released final electric vehicle studies or roadmaps.
- Regulators in Missouri, Texas, and Wisconsin opened new investigatory proceedings related to electric vehicles.

In Q1 2019, states worked on various electric vehicle plans, studies, roadmaps, and reports as required by state legislatures and regulatory commissions. A total of 32 states and DC took actions related to studies and investigations, with three studies published and three investigatory proceedings opened during the quarter.

**Figure 7. Action on Electric Vehicle Studies and Investigations (Q1 2019)**



New statewide electric vehicle roadmaps were released in Pennsylvania and Tennessee during Q1 2019. These roadmaps outline goals and strategies for promoting the deployment of electric vehicles within the state. The Roadmap for Electric Vehicles in Tennessee was developed through a stakeholder process involving state agencies, utilities, and many others, while the Pennsylvania Electric Vehicle Roadmap was prepared by the state's Department of Environmental Protection. A working group also published a final report in Colorado, as part of

the Colorado Public Utilities Commission's transportation electrification proceeding. The report includes several recommendations, including allowing utilities to file applications for electric vehicle pilot programs and tariffs.

Several state legislatures are considering bills initiating new electric vehicle plans or investigations, with lawmakers in two states enacting bills in Q1 2019 or early Q2 2019. A bill enacted in Kansas in early April 2019 directs the legislative coordinating council to undertake a study on a range of ratemaking issues, including the impacts of electric vehicle charging on rates. A bill enacted in North Dakota requires a study related to electric vehicle charging and a cost-benefit analysis for different infrastructure support options, while a Washington bill delivered to the Governor in April 2019 calls for a study of ways to reduce barriers to electric vehicle adoption for low-income residents.

### Box 3. Categorizing Studies and Investigations

In the 50 States report series, actions included within the category of Studies and Investigations do not include defined policy proposals or directives to implement a specific policy or regulatory change. Once a specific proposal is introduced, that action is included in the more specific category pertaining to that particular type of change, such as Regulation, Rate Design, or Market Development.

Broad transportation electrification and grid modernization investigations by state regulators typically place a significant emphasis on stakeholder engagement. New investigatory proceedings were opened in Missouri, Texas, and Wisconsin during Q1 2019. While nothing has yet been filed in the Texas docket, regulators in Missouri and Wisconsin requested input from stakeholders on several questions related to electric vehicle charging. Meanwhile, an investigatory proceeding is wrapping up in Vermont, with stakeholders' final recommendations due in May 2019. Vermont's proceeding has addressed a wide array of electric vehicle issues, including fees and infrastructure funding, rate design, regulation of charging stations, and safety standards.

One common topic among bills introduced in Q1 2019 is the impact of electric vehicles on transportation infrastructure funding and potential options to make up for the associated reduction in gasoline tax revenue. In New Mexico, a proposed bill would require researching a mileage-based road usage fee system, and a New Hampshire bill would commission a study to examine state highway revenue alternatives for electric and hybrid vehicles. Bills examining vehicles miles traveled fees were also considered in Kentucky, Maine, and Texas.

**Table 2. Updates on Electric Vehicle Studies & Investigations (Q1 2019)**

State	Study Scope	Description	Source
AR	Distributed Energy Resources	In April 2016, the Public Service Commission (PSC) opened a general proceeding to explore DERs, including electric vehicles. The proceeding is intended to develop comprehensive recommendations on several issues, including DER integration. Among specific topics to be addressed in the proceeding, according to a November 2017 order, is the identification of currently non-quantified functionalities of DERs, including EVs that can be enabled or enhanced by AMI, and which may be better offered by the utility and by third parties. In July 2018, the Commission issued an order, establishing a list of issues to be addressed during the course of the proceeding. The list includes many specific topics within the broader categories of DER aggregation, rate structure and rate design, low-income customer participation, advanced technology, and distribution system planning and integrated resource planning. The Commission will schedule an initial educational workshop on DER and grid modernization issues, and is first accepting comments on the grouping of issues to be addressed in the proceeding and additional issues, the order and prioritization of these issues, means of addressing and building consensus on these issues, the expertise necessary to address these issues, and possible timeframes for events. The Commission also deferred action on the electric cooperatives' request for exemption from this proceeding until after the educational workshop. The Commission scheduled the educational workshop for June 2019.	<a href="#">Docket No. 16-028-U</a>  <a href="#">Order No. 10</a>
CO	Electric Vehicles	In October 2017, the Colorado Public Utilities Commission (PUC) opened an investigation into transportation electrification. The initial focus of the proceeding is on EVs, though the Commission noted that the investigation could also later address other beneficial electrification issues, including vehicle-to-grid technologies; electric trucks, buses, and medium- and heavy-duty vehicles; and water heating, space heating, and cooling. A Commissioner Information Meeting focusing on EVs was held in early December 2017. In May 2018, the PUC issued a decision ordering PUC Staff to convene a working group on EVs and transport electrification, with instructions to submit a written report by November 30, 2018. Issues to be addressed include EV rate design and cost recovery for EV infrastructure. The working group submitted a draft report in late November 2018. The draft report discusses several EV issues, including beneficial	<a href="#">Docket No. 17I-0692E</a>

		<p>electrification, make-ready infrastructure investments, rate design, metering, smart charging, fleet electrification, medium and heavy duty vehicle electrification, and education and outreach, but does not include recommendations. The final version of the report was submitted in January 2019, along with a statement from the working group members requesting that the PUC provide guidance on the ability of utilities to obtain cost recovery for investments in make-ready infrastructure. Recommendations from the final report included keeping this docket open to discuss general policy issues while allowing and encouraging utilities to file applications for pilot programs and tariffs, and allowing utilities to file applications for make-ready infrastructure investments. A report titled "Electric Vehicle Charging Implications for Utility Ratemaking in Colorado" prepared by the National Renewable Energy Laboratory was filed in March 2019. This report discusses the potential to decrease cost of service by encouraging charging in periods of low system cost, and how the use of TOU rates might affect charging behavior. During April 2019, the PUC filed a variety of materials for consideration in this docket, including policy reports and orders from other jurisdictions.</p>	
CT	Grid Modernization	<p>In November 2017, the Public Utilities Regulatory Authority (PURA) opened a proceeding to investigate the state of the electric distribution companies' distribution systems and plans, near and long term needs of the distribution system, and whether any new or modified planning objectives, metrics, solutions, performance incentives, oversight and/or procurement mechanisms should be implemented. Focus areas highlighted by the PURA include DER integration; modernizing data sensing, analytics, control, and communications; alternatives to traditional capacity solutions; and rate design. In March 2018, the PURA issued a Notice of Scope of Proceeding, outlining the scope of the first phase of the proceeding. This first phase will focus on establishing the PURA's regulatory framework for grid modernization and examining three questions: (1) What are the key cost drivers associated with maintaining and modernizing the electric distribution system? (2) To what extent is customer electric demand changing in the near-term and long-term, and how can distribution system planning efforts best respond to changing customer demand? and (3) What functions to grid modernization technologies serve and how can these technologies be deployed to most effectively and efficiently meet the needs of the electric distribution utilities and customers, in light of the evolving distribution grid</p>	<p><a href="#">Docket No. 17-12-03</a></p>

		and electric system? Question 2 is addressing the role of DERs, including EVs, and will inform rate design discussions. EVs could also be addressed in other ways throughout this proceeding. The PURA issued a request for comments in March 2018, regarding principles and objectives for investments in grid modernization, the stakeholder participation process, and the PURA's three questions outlined in the Notice of Scope of Proceeding. A technical meeting was held in June 2018, focusing on Topic 1, while Topics 2 and 3 were addressed at technical meetings in July and October 2018. A public hearing was held in late October, with briefs accepted in November and reply briefs in December 2018. A decision has not yet been issued.	
	HOV Lane Access	S.B. 99 requires the Commissioner of Transport to study the feasibility of creating a lane on I-95 that is exclusively for vehicles with 3 or more passengers and all-electric vehicles.	<a href="#">S.B. 99 (I)</a>
DC	Grid Modernization	In June 2015, the DC Public Service Commission (PSC) initiated a proceeding to identify technologies and policies that can modernize its energy delivery system for increased sustainability, reliability, efficiency, cost-effectiveness, and interactivity. EVs are included within the scope of this investigation. In January 2017, the staff presented its Modernizing the Distribution Energy Delivery System for Increased Sustainability (MEDSIS) report. In the report, the Staff found the current definition of an EV to be adequate and recommended the PSC issue a notice of proposed rulemaking to adopt the definition. The PSC later accepted comments on whether a full assessment of the District's capabilities and characteristics is warranted at this time, and to what extent a consultant should be used to move MEDSIS forward more expeditiously. In February 2018, the PSC adopted a MEDSIS vision statement and stated that it would conduct a request for proposals for a MEDSIS consultant. A technical conference was convened by the hired consultant, the Smart Electric Power Alliance, in late June 2018. EVs were mentioned during the conference, but were not a primary focus. The MEDSIS working groups filed their recommendations in April 2019.	<a href="#">Formal Case No. 1130</a>  <a href="#">MEDSIS website</a>
FL	Transportation Infrastructure Funding	S.B. 660 directs the Florida Transportation Commission to review sources of revenue for transportation infrastructure and maintenance projects and prepare a report on the impact of EVs. The report is to include recommendations on ways to ensure continued funding for transportation infrastructure and accomplishing necessary infrastructure improvements to support emergency	<a href="#">S.B. 660 (D)</a>

		evacuations by EV users. The bill died in committee in May 2019.	
HI	Transportation Electrification	A June 2017 order from the Public Utilities Commission required the HECO companies to develop an Electrification of Transportation Strategic Roadmap. HECO submitted its roadmap in March 2018, which describes a number of activities that could accelerate the adoption of EVs, including: (1) lowering costs and educating customers, (2) accelerating the buildout of EV charging infrastructure, (3) supporting the electrification of buses and other heavy equipment, (4) incentivizing EV charging, and (5) coordinate with ongoing grid modernization planning efforts. The Commission opened a new proceeding (2018-0135) in June 2018 to serve as a repository for the Roadmap. In November 2018, HECO filed an addendum to its Strategic Roadmap. The original roadmap provided economic analysis of electrification of transportation in its service territories using light-duty vehicles on Oahu as an initial case study. The addendum provides economic analysis on additional islands. No action took place during Q1 2019.	<a href="#">Docket No. 2018-0135</a> <a href="#">Docket No. 2016-0168</a> <a href="#">Electrification of Transportation Strategic Roadmap</a> <a href="#">Roadmap Addendum</a>
IA	EV Charging	In May 2018, Iowa's governor signed S.F. 2311 into law. In addition to various changes to utility rules, the amended bill requires the Iowa Economic Development Authority, the Department of Transportation, and the utility industry to conduct a study on EV infrastructure support, including an evaluation of the costs and benefits of the various options for EV infrastructure support. No additional actions were reported in Q1 2019; the study must be completed and submitted to the General Assembly by June 30, 2019.	<a href="#">S.F. 2311 (2018)</a>
IL	EV Charging	H.B. 211 and S.B. 53, introduced in January 2019, require the Illinois Corporation Commission to conduct at least one workshop and issue a report concerning whether the development, construction, and installation of new publicly-accessible EV charging stations would increase utilization of EVs (similar to H.B. 5216 and S.B. 3014 from 2018).	<a href="#">H.B. 211 (I)</a> <a href="#">S.B. 53 (I)</a>
	Grid Modernization	In March 2017, the Illinois Commerce Commission opened the "NextGrid" proceeding following the passage of legislation in December 2016 that makes comprehensive changes to various aspects of Illinois energy policy. This will be a collaborative process with seven working groups: 1) New Technology and Grid Integration, 2) Electricity Markets, 3) Customer and Community Participation, 4) Regulatory, Environmental, and Policy Issues, 5) Metering, Communications, and Data, 6) Reliability, Resiliency,	<a href="#">Docket No. 17-0142</a> <a href="#">NextGrid Website</a> <a href="#">Draft Final Report</a>



and Cyber Security, and 7) Ratemaking. EVs are explicitly noted as a topic for consideration within the New Technology Deployment and Grid Integration working group, and are likely to be considered within other working groups as well. The NextGrid process officially began in September 2017, with a kickoff conference held in Chicago. Working Group 1 held several meetings in late 2017 and early 2018, during which presentations on EV infrastructure needs were given and discussions were held on electrification policy issues, including determining costs and benefits, inclusion of low-income communities, and grid management.

All working groups released draft reports during the third quarter of 2018. Working Group 1's report discussed the need to take transportation electrification into account in distribution system planning. Working Group 2's report discussed how metering issues can inhibit participation in EV programs. Working Group 4's reports contained a number of recommendations from stakeholders on transportation electrification, including developing pilot time-of-use rates specifically for EV charging, developing pilot "smart charging" programs, investigating workplace and streetlight-based charging, investigating issues with EV charging at multiple-tenant properties, and supporting electrification of public bus fleets; this working group also discussed whether public funding for EV charging infrastructure would be necessary. Working Group 6 discussed the potential for EVs to provide environmental and grid benefits and the potential equity issues of EV infrastructure funding options. Working Group 7 discussed how time-of-use pricing can help incentivize EV usage. A draft final report was published in December 2018, and comments on the draft final report were filed in January 2019. Publication of the final report has been delayed due to a lawsuit regarding procedural issues.

Transportation Electrification	<p>H.B. 2855 and S.B. 2059 require the Illinois Commerce Commission to initiate a process to develop a forward-looking plan for strategically increasing transportation electrification in the state. The plan developed by the Commission must incentivize transportation electrification through beneficial electrification programs, and may include specific directives for public utilities that enable transportation electrification or beneficial electrification, and should specifically address environmental justice interests and provide opportunities for residents and businesses in environmental justice communities to directly benefit from transportation electrification. Programs should</p>	<p><a href="#">H.B. 2855 (I)</a> <a href="#">S.B. 2059 (I)</a></p>
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		provide for incentives that encourage customers to use electricity at times of low overall system usage or at times when generation from renewable energy sources is high, and can include managed charging programs and vehicle-to-grid technologies.	
	Transportation Electrification	The Illinois Corporation Commission held policy sessions in April and September 2018 to discuss transportation electrification. On September 24, 2018, the Illinois Corporations Commission issued a notice of inquiry to gather further information and opinions from stakeholders on the technical, financial, and policy implications of electric vehicles. The notice of inquiry proceeding is not a rulemaking, although information gathered may inform future rulemakings. Initial comments were filed in late October 2018, and reply comments were filed in mid-November 2018. In January 2019, the Commission released a summary report for the notice of inquiry, summarizing all of the comments received.	<a href="#">Notice of Inquiry</a>
KS	Electric Vehicles	H.B. 2231 and S.B. 69 direct the Corporation Commission to investigate several ratemaking issues in Kansas. The study would address several issues related to EV charging, including (1) whether any costs incurred by public utilities to build EV charging stations are recovered from ratepayers not using the charging stations; (2) how rates for charging services should be designed to avoid cross-subsidization; (3) the potential effects of deregulating EV charging services in Kansas; and (4) whether Kansas consumers could benefit from improved access to EVs and charging stations. S.B. 69 was enacted in early April 2019.	<a href="#">H.B. 2231 (I)</a> <a href="#">S.B. 69 (E)</a>
	Electric Vehicles	S.B. 181 creates an energy policy task force to study many aspects of energy policy in Kansas, including any possible effect of EVs and charging stations on utility rates and reliability.	<a href="#">S.B. 181 (I)</a>
KY	Transportation Infrastructure Funding	H.C.R. 54 creates a Mileage-Based Transportation Funding Task Force to investigate the possibility of moving to a mileage-based transportation tax system from a fuel-based system.	<a href="#">H.C.R. 54 (D)</a>
LA	Electric Vehicles	In April 2018, the New Orleans City Council approved a resolution establishing a new docket to consider issues related to EVs and EV charging. In July 2018, the Utility Advisors filed a report on a proposed process for gathering information in this proceeding. The City Council established a procedural schedule in December 2018 and merged the proceeding with the Smart Cities docket (No. UD-18-01). The City Council merged this proceeding with the Smart Cities proceeding (Docket No. 18-01)	<a href="#">Docket No. UD-18-02</a> <a href="#">Resolution R-18-100</a> <a href="#">Resolution No. R-18-536</a>

		<p>in December 2018 and established a procedural schedule. Parties filed their proposed lists of relevant issues in late February 2019. Entergy's list adds defining the scope of the proceeding, types of EV chargers, available incentives for chargers, optimal city-owned locations for chargers, opportunities for fleet electrification, education and outreach, and implementation and regulation of third-party charging fees to the initial list. The Alliance for Affordable Energy also proposed additional topics, including non-participant rate benefits and costs, cost allocation, EV adoption impacts on integrated resource planning, fleet electrification, third-party charging development and consumer protection, emissions impact tracking, addressing under-served neighborhoods, opportunities for private investment, the intersection of smart city initiatives and EV deployment, and multi-family housing and commercial property policies for charger installation. A technical conference is scheduled for July 5, 2019. The Advisors are to file their recommendations by August 15, 2019.</p>	<p><a href="#">Resolution No. R-18-537</a></p>
MA	EV Incentives	<p>H. 392 directs the Department of Energy Resources to study the branding, marketing, and funding of incentive programs for EVs and charging equipment in the state. The study is to examine existing and potential incentives, existing and potential funding sources for incentives, existing and potential marketing strategies, best practices for program marketing in state and in other states, and potential rebranding of EV incentive programs, such as using the name Mass Save. The study is due by December 15, 2019.</p>	<p><a href="#">H. 392 (I)</a></p>
	EV Incentives	<p>H. 3629 directs the Department of Energy Resources to conduct a study evaluating the costs and benefits of an instant rebate program for EVs, as well as a study evaluating the costs and benefits of providing additional financial incentives to low-income individuals for purchasing or leasing EVs.</p>	<p><a href="#">H. 3629 (I)</a></p>
	HOV Lane Use	<p>H. 2802 directs the Department of Transportation to conduct a feasibility study of authorizing EVs to use HOV lanes, regardless of the number of occupants. The study would be due by July 31, 2020.</p>	<p><a href="#">H. 2802 (I)</a></p>
MD	Electric Vehicles	<p>In September 2016, the Maryland Public Service Commission (PSC), as part of the Exelon-PHI merger condition, initiated a grid modernization proceeding to ensure that the electric distribution system in Maryland is customer-centric, affordable, reliable, and environmentally sustainable. The proceeding is addressing a variety of topics, including electric vehicles. In January 2018, the EV</p>	<p><a href="#">Public Conference No. 44</a></p> <p><a href="#">Case No. 9478</a></p>

		<p>working group filed a proposal for the Public Service Commission (PSC) to open a new proceeding to consider a statewide electric vehicle portfolio. The proposed portfolio would include residential, non-residential, public, innovation, and technology sub-portfolios for each service territory.</p> <p>A January 2019 order approved in part and denied in part the proposed portfolio. Among the working group's recommendations in the proposal was the creation of an EV Portfolio Advisory Council to consider next steps for EV infrastructure. The Commission denied the request to establish the Advisory Council, finding it duplicative of the EV working group and the state's EV Infrastructure Council.</p>	
ME	Beneficial Electrification	L.D. 1464 directs Efficiency Maine to study the barriers to beneficial electrification for the transportation and heating sectors in the state. The report is to identify areas or populations in the state less likely to benefit directly from electrification without additional policy or utility intervention, as well as opportunities for beneficial electrification. The report would be due by February 1, 2020.	<a href="#">L.D. 1464 (I)</a>
	Electric Vehicles	L.D. 1257 establishes an EV task force to make recommendations on proposals to increase personal and commercial EV use in the state, proposals for the construction of EV infrastructure needed to support increased EV use, development of 5-year and 10-year EV action plans, and proposals on the use of Volkswagen settlement funds. A report is due by February 15, 2020. The bill also directs the Commissioner of Transportation to review short and long term planning and infrastructure investments of the Department of Transportation and make recommendations to address increasing number of EVs, among other considerations. The Commissioner is to implement two pilot programs to test alternative structures for road usage fees, including a vehicle miles traveled fee.	<a href="#">L.D. 1257 (I)</a>
MN	Electric Vehicles	In December 2017, the Minnesota Public Utilities Commission opened a Commission inquiry into EV charging and infrastructure. The purpose of the proceeding is to gather information on three primary topics: (1) the possible impacts and benefits of EVs on the electric system, utilities, and ratepayers; (2) the degree to which utilities and regulatory policy can impact EV adoption in the state; and (3) EV tariff options that could facilitate wider availability of charging infrastructure. A workshop was held in March 2018. The Commission received initial comments in July 2018, and reply comments in	<a href="#">Docket No. 17-879</a>

		<p>August 2018. In December 2018, Commissioner Lipschultz filed suggested findings and several decision options for the Commission to consider. One of the decision options is to require all three IOUs to file EV promotional cost recovery mechanisms as part of their annual EV reports. Another decision option is to require the IOUs to file Transportation Electrification Plans to identify what EV-related initiatives the utility has planned for the next two years. An additional decision option requires the IOUs to file proposals, which may be pilots, to enhance the availability of charging infrastructure.</p> <p>An order filed in February 2019 makes a number of findings both general and specific related to EVs in Minnesota. The order further required the utilities to make a series of filings, including a report of planned 2019 EV proposals by March 31, 2019, a transportation electrification plan by June 30, 2019, and proposals for infrastructure, education, and managed charging by October 31, 2019. The utilities filed reports on their planned 2019 EV proposals in March 2019. Xcel's plan shows its intention to propose a vehicle-to-grid demonstration project with school buses during Q2 2019. Otter Tails' plan includes the development of demand response rates for residential and commercial EV charging, rates for both company-owned and 3rd party-owned DCFC stations, and a DCFC pilot with a community organization. Minnesota Power's plan involves a commercial EV rate pilot, a residential second service solution, and a solution for addressing EV charging infrastructure costs.</p>	
MO	Distributed Energy Resources	<p>In March 2017, the Missouri Public Service Commission (PSC) opened a proceeding to gather information on issues including advanced metering infrastructure installation, PACE financing programs, alternative rate design proposals, and the PSC's role in promoting a competitive market for PEVs. A workshop was held in May 2017, where these issues were discussed, and in July 2017, the Commission staff filed a report with recommended next steps. The report noted that the issues of EV rate design and resale of electricity from EV charging infrastructure came up in various stakeholders' comments. The staff did not recommend any additional workshops on EV charging, but did recommend that EV issues be included in further discussion on modified rate design. EV charging needs were addressed during presentations at a February 2018 workshop considering rate design issues. EVs were considered to be a DER in the PSC Staff's April 2018 report on DERs, which</p>	<p><a href="#">Docket No. EW-2017-0245</a></p> <p><a href="#">April 2018 Staff Report</a></p> <p><a href="#">Draft Rule</a></p>

	<p>recommends allowing DERs to be used as part of demand-side management programs. In May 2018, the PSC Staff released a draft rule for comment, and in late May a workshop was held to discuss the proposed rule. In late June 2018, the PSC Staff released an updated version of the draft rule for comment. The current version of the rule requires utilities to maintain a database on current DERs (including EVs) on their grids, assess the market potential for DERs as part of their triennial compliance filings, and evaluate DERs as part of the resource planning process, including their integration with the transmission and distribution system. Several parties filed comments on the draft rule in July 2018. The Office of the Public Counsel argued against the need for the new rules, stating that current rules are sufficient and arguing that the database would be created too late to help inform current policy deliberations. The Division of Energy from the Missouri Department of Economic Development and Renew Missouri generally supported the draft rules, and made suggestions to include additional elements in the required analyses. The comments jointly submitted by utility parties suggested using a different definition for cost-effectiveness (the draft rules use a definition from the National Efficiency Screening Project, while the utilities suggest using the definition from the Missouri Energy Efficiency Investment Act of 2009) and suggest providing information on current DERs on the grid through annual filings rather than an online database.</p>	
EV Charging	<p>In February 2019, the Missouri Public Service Commission opened a docket to conduct a stakeholder process to evaluate potential mechanisms for facilitating installation of EV charging stations, stemming from discussions in Docket No. ET-2018-0132 concerning Ameren's proposed incentive programs. In early March 2019, the Commission issued a request for comments on which cost categories should be eligible for subsidization by utilities or special tariff, accounting, or ratemaking treatment under a make-ready approach. Comments filed by the major IOUs generally supported allowing utility investments to facilitate EV adoption. Comments from petroleum-related parties and industrial customers generally opposed utility EV infrastructure investment, particularly the inclusion of such investment in the rate base, although the industrial customers expressed that make-ready infrastructure programs might be permissible so long as all costs were covered within the program itself. Renew Missouri's comments supported the development of a "pay-as-</p>	<p><a href="#">Docket No. EW-2019-0229</a></p>

		<p>you-save" tariff that would allow utilities to provide up-front costs for customers that install EV charging stations while receiving a fixed charge in return, and emphasized the benefits of this approach for municipal customers. The Missouri Division of Energy suggested that evaluation of utility EV infrastructure programs should take place on a case-by-case basis, as different types of programs may be appropriate in different circumstances. A workshop took place on March 21, 2019.</p>	
MT	EV Charging	<p>H.J.R. 16 is a resolve that a committee designated by the Legislative Council, or staff conduct a study of electric transportation. The study would aim to determine statutory and regulatory barriers to utilities establishing nonregulated subsidiaries to own and operate EV charging infrastructure. The study would also examine safety, performance, installation, and interconnection standards for in-home and commercial fleet charging stations and the state agencies' capacity for planning and using electric transportation. The study would be completed by September 15, 2020. The resolve passed the House in early April 2019, but died in the Senate later in the month.</p>	<p><a href="#">H.J.R. 16 (D)</a></p>
	Grid Modernization	<p>In April 2018, NorthWestern Energy held the first meeting of its Customer Vision stakeholder group. The group will address potential products and services customers would be interested in, pricing models that align utility and customer needs, and the future of the power grid. Among the wide array of topics proposed to be addressed are DER policy and rate issues, as well as EV fueling infrastructure. The group met in May, June, July, and September 2018, with presentations about Minnesota's e21 Initiative, the Illinois NextGrid process, and Green Mountain Power's Vermont programs. The group also met in October 2018, with a presentation about electricity pricing and rate design in Ontario. NorthWestern Energy also gave a presentation on its planned infrastructure initiative. A meeting was held in November 2018, where a decoupling proposal and force-field analysis were discussed. A meeting was held on February 1, 2019, with presentations on decoupling, energy efficiency opportunities, providing a true customer experience, and keeping customer focus in technology projects.</p>	<p><a href="#">Customer Vision Stakeholder Group</a></p>
NC	Zero-Emission Vehicles	<p>In October 2018, Governor Cooper issued Executive Order No. 80, which establishes a goal of having 80,000 registered ZEVs in the state by 2025. The order directs the Department of Transportation (DOT), in coordination with the Department of Environmental Quality, to develop a ZEV Plan to</p>	<p><a href="#">Executive Order No. 80</a></p> <p><a href="#">ZEV Plan Development</a></p>



		<p>achieve the ZEV registration goal established by the order. The plan is to help establish interstate and intrastate ZEV corridors, coordinate and increase ZEV infrastructure, and incorporate best practices for increasing ZEV adoption. The plan is to be completed by October 1, 2019. The order also directs cabinet agencies to prioritize ZEVs when purchasing or leasing new vehicles and to prioritize low-emission alternatives when ZEV use is not feasible. The Department of Administration is to develop a Motor Fleet ZEV Plan to aid in accomplishing this directive. The DOT has been hosting a series of stakeholder workshops to help in developing the ZEV Plan.</p>	
ND	EV Charging	<p>S.B. 2061, as amended by the Senate, requires a study to design a jointly owned public and private network of EV infrastructure to support commercial and non-commercial vehicle charging. The study is also to make recommendations regarding charging infrastructure and include a cost-benefit analysis for various options for infrastructure support. The amended bill passed the Senate in January 2019. The House passed a further amended version of the bill in March 2019, with the amendments related to fees for EVs. The Senate concurred with the House amendments, and the Governor signed the bill in April 2019.</p>	<p><a href="#">S.B. 2061 (E)</a></p>
NE	Electric Vehicles	<p>L.B. 704 instructs the transportation services bureau of the Department of Administrative Services to conduct a study to determine a cost-effective way to invest in EVs for use by the state government.</p>	<p><a href="#">L.B. 704 (I)</a></p>
NH	Transportation Infrastructure Funding	<p>S.B. 221 creates a commission to study revenue alternatives to the road toll for EVs and hybrid vehicles. The Commission is to file a report with its findings and recommendations for proposed legislation by November 1, 2019. The Senate passed an amended version of the bill in March 2019, which extends the deadline for the report until November 1, 2020. The bill failed to pass the House in early May 2019.</p>	<p><a href="#">S.B. 221 (D)</a></p>
NJ	Clean Transportation, Grid Modernization	<p>In May 2018, New Jersey's Governor directed the Board of Public Utilities to develop the 2019 Energy Master Plan. As part of this process, a stakeholder meeting on Clean and Reliable Transportation was held in September 2018. Discussion points related to state policy, technological advancements, infrastructure investment, reliability and security, economic growth and workforce development, and environmental justice. Additional stakeholder meetings were held on Clean and Renewable Power, Sustainable and Resilient Infrastructure,</p>	<p><a href="#">Executive Order No. 28</a></p> <p><a href="#">Press Release</a></p> <p><a href="#">Energy Master Plan Website</a></p>

		Reducing Energy Consumption, and Building a Modern Grid. The final plan is expected to be completed in June 2019.	
	Electric Vehicles	A.B. 2850 and S.B. 877 establish and modify clean energy and energy efficiency programs, establish a zero emission certificate program, and modify the state's solar renewable energy portfolio standards. The bill covers many topics related to renewable energy; it would require study of the impacts of EVs as part of a proposed statewide zero emission certificate program.	<a href="#">A.B. 2850 (I)</a> <a href="#">S.B. 877 (I)</a>
	Electric Vehicles	A.B. 4634, introduced in October 2018, directs the Department of Environmental Protection to prepare a study assessing the current state of the state's EV market, measuring the progress toward the goals established by this bill, identifying barriers to achieving the goals, and making policy recommendations to address the barriers. The bill also establishes an EV Working Group to develop a statewide vehicle charging infrastructure plan.	<a href="#">A.B. 4634 (I)</a>
NM	Transportation Infrastructure Funding	H.M. 77 is a House Memorial that requests the Department of Transportation to participate in the western road usage charge consortium regional system definition and pilot planning project and to research options for implementing a mileage-based fee system. The House adopted the Memorial in March 2019.	<a href="#">H.M. 77 (Adopted)</a>
	Zero-Emission Vehicles	Executive Order 2019-003, signed in January 2019 establishes an interagency Climate Change Task Force, and charges it with, among other things, evaluating policies and regulatory strategies to reduce greenhouse gas and criteria pollutant emissions from light-duty vehicles sold in the state, including low-emission vehicle emission standards and ZEV performance standards. The task force will develop a New Mexico Climate Strategy document with initial recommendations and a status update to the Governor by September 15, 2019.	<a href="#">Executive Order No. 2019-003</a>
NV	Electric Vehicles, Transportation Infrastructure Funding	S.C.R. 3 directs the Legislative Commission to appoint a committee to conduct an interim study of the use of EVs in the state. The study must include an examination of the benefits of the use of EVs and how to encourage their use, the impact of the use of EVs on maintaining public roads and highways, methods to ensure that owners of EVs equitably contribute to the cost of maintaining public roads and highways.	<a href="#">S.C.R. 3 (I)</a>
NY	EV Charging Infrastructure	A.B. 4937 requires NYSERDA to prepare a report on the state's EV and infrastructure inventory, including	<a href="#">A.B. 4937 (I)</a>



		evaluation of infrastructure gaps, incentive programs, and prospects for transitioning to a primarily electric state vehicle fleet.	
	Rate Design	S.B. 21, introduced in January 2019, requires the Public Service Commission to study and compile a report analyzing TOU rate plans offered by the state's electric utilities. The report is to include recommendations regarding the impacts of increased EV use in off-peak timeframes.	<a href="#">S.B. 21 (I)</a>
OH	Grid Modernization	<p>The Public Utilities Commission of Ohio opened three new dockets in October 2018 to build upon its PowerForward investigation. Two of the dockets are examining issues unrelated to EVs, but the Collaborative docket is a broader group led by the staff that will function as an interactive forum tasked with monitoring, facilitating, and accommodating the evolution of a marketplace that promotes innovation consistent with the PowerForward Roadmap. The Roadmap identified some initial areas that the Collaborative should provide attention to on the topic of EVs, including, but not limited to: broadly monitoring EV manufacturing and the marketplace; studying impacts of EVs on the distribution system; rate design to incent EV charging during off-peak periods; EV corridor deployment; and the development of the marketplace for EV charging stations.</p> <p>As a first step, each electric distribution utility was required to file grid architecture status reports by April 1, 2019. PowerForward Collaborative meetings were held on December 6, 2018 and February 14, 2019. The February agenda included presentations and discussion on EV charging and demand-side management, managed charging best practices, and metering requirements for EV rates. As required, the electric distribution utilities filed their respective grid architecture status reports in new dockets on April 1, 2019. The status reports did not reference EVs.</p>	<a href="#">Docket No. 18-1595-EL-GRD</a>  <a href="#">PowerForward Website</a>  <a href="#">PowerForward Roadmap</a>
OR	EV Weight Limits	S.B. 411 directs the Department of Transportation to prepare a report on the maximum weight limits for commercial EVs. The report is to include any recommended legislative changes and is due by September 15, 2020.	<a href="#">S.B. 411 (I)</a>
	Zero-Emission Buses	H.B. 3141, among other things, requires the Department of Administrative Services to conduct a study on the costs and feasibility of implementing the California Innovative Clean Transit measure, which mandates that all public transit agencies transition to zero-emission buses by 2040. The department must report the results of the study to the interim	<a href="#">H.B. 3141 (I)</a>

		legislative committees related to the environment, no later than September 15, 2020.	
PA	Electric Vehicles	The Pennsylvania Department of Environmental Protection sponsored the development of an Electric Vehicle Roadmap, which was released in February 2019. The goals of the roadmap are to expand the knowledge base of the Drive electric Pennsylvania Coalition and other stakeholders; document a baseline of information on the current state of EVs in the state; and identify EV policies, plans, and programs to support EV deployment. The roadmap presents several near-term strategies that can be implemented within 2 years, including, setting statewide EV sales goals, encouraging utilities to propose transportation electrification programs, expanding the Alternative Fuel Incentive Rebate program, administering a dealer outreach and support program, and advancing a statewide EVSE network planning, investment, and communications program. The roadmap also details medium-term strategies that can be implemented in 2 - 5 years, including, residential and commercial EV rate designs, public and residential EVSE investment, workplace and multifamily EVSE education and outreach, and municipal technical assistance, planning and grants. Lastly, the roadmap presents long-term strategies with a 5+ year horizon, including the development of innovative financing for EVs and EVSE, and EV-ready building codes.	<a href="#">Pennsylvania Electric Vehicle Roadmap</a>
TN	Electric Vehicles	In January 2019, a broad group of stakeholders, including the Department of Environment and Conservation and the Department of Transportation, released an EV roadmap for Tennessee. The plan includes individual roadmaps for different electric vehicle areas, including charging infrastructure availability; awareness; innovative and supportive policies; and EV availability, offerings, and innovation.	<a href="#">A Roadmap for Electric Vehicles in Tennessee</a>
TX	Electric Vehicles	In January 2019, the Texas Public Utility Commission Staff requested that a docket be opened to review issues relating to EVs. No action has taken place in the docket since it was opened.	<a href="#">Docket No. 49125</a>
	Transportation Infrastructure Funding	H.B. 2254 tasks the Texas A&M Transportation Institute with conducting a study on the options available for collecting road use fees from alternatively fueled vehicles. The study would be due by December 1, 2020.	<a href="#">H.B. 2254 (I)</a>
	Transportation Infrastructure Funding	S.B. 1653 tasks the Texas Department of Motor Vehicles with conducting a study on the effect of alternatively fueled vehicles on fuel tax revenues and	<a href="#">S.B. 1653 (I)</a>

		options for collecting tax revenue from alternatively fueled vehicles, with a focus on a mileage-based fee system. The study would be due by December 1, 2020.	
VT	Electric Vehicles	<p>In June 2018, following the enactment of H.B. 917, which requires the Public Utility Commission (PUC) to investigate a number of issues related to EVs and EV charging, the Department of Public Service filed a request for the PUC to conduct such an investigation. In July 2018, the PUC issued an order closing the docket in which the Department's request was made and opening a new docket (Docket No. 18-2660-INV) to investigate the promotion of the ownership and use of EVs in Vermont. A workshop was held in early October, addressing the current state of technology, changes to existing technology expected in the coming year, barriers to widespread EV charging station deployment, barriers to widespread ownership and use of EVs in the state, strategies to remove barriers, and the appropriate scope of the PUC or other state agencies over EV charging stations (both utility and non-utility owned and operated). The PUC noted that reaching clarity on the jurisdictional issues related to EV charging stations is a priority. A second workshop was held on November 30th. In December 2018, the PUC issued a request for comments on options for funding the maintenance of Vermont's transportation infrastructure as EV usage increases in the state. Comments were due by January 9, 2019.</p> <p>On January 23, 2019, the PUC sent a letter to the Chairs of the Senate Committees on Finance, Natural Resources and Energy, and Transportation and the House Committees on Energy and Technology and Transportation. The letter includes legislative recommendations that would clarify that the PUC and Department of Public Service do not have authority to regulate EV charging stations. In response to the request for information issued in December on methodologies for EV users to pay for transportation infrastructure, the PUC found that the two approaches with the most support were a vehicle miles traveled fee and a fee applied to kWhs used for EV charging. In February 2019, the PUC issued a request for more information on the kWh fee option, as the original recommendations were not accompanied by supporting references and information. Parties filed comments, with the Department of Public Service, Agency of Transportation, and Agency of Natural Resources supporting the kWh fee option, and several utilities opposing the option.</p>	<a href="#">Docket No. 18-2660-INV</a>

		<p>The PUC held a workshop in March 2019 to discuss planned or currently available EV charging rates (both for home charging and public charging stations), demand charges and fast charging stations, growing EV charging load and grid issues, the potential benefits of managed charging and vehicle-to-grid opportunities, metering and sub-metering technology for EV charging, and a per-kWh fee on EV charging to support transportation infrastructure funding. Later in March 2019, the Department of Public Service filed its report on demand charges, recommending (1) increasing emphasis on more dynamic, forward-looking components of system costs; (2) adopting forward-looking and dynamic capacity-related price signals for all customers and rate classes; (3) reducing reliance on demand ratchets; (4) focusing on system costs rather than customer loads; (5) allowing existing customers to transition toward new price signals over time to facilitate a smooth transition; and (6) adopting a pathway for immediate relief from demand charges to new loads like EV charging stations. Final recommendations in the investigation are due by May 13, 2019.</p>	
	Grid Modernization	<p>In June 2017, the Vermont Public Utility Commission opened a broad grid modernization proceeding to examine emerging trends in the utility sector and existing forms of regulation in light of these trends. Among the topics to be considered is the emergence of EVs. Thus far, the proceeding has focused on alternative utility business models. The Commission published an order on principles and considerations for alternative regulation in July 2018.</p>	<p><a href="#">Docket No. 17-3142-PET</a></p>
WA	Aviation Electrification	<p>H.B. 1397 states the legislature's support for the electrification of aviation, and requires the Department of Transportation to convene a working group to study the potential for electric aircraft operations at airports. The working group must submit a report to the legislature by November 15, 2020 covering many topics related to aviation electrification and addressing certain specific questions identified in the bill. The bill passed the House in March 2019. By resolution, the Senate returned the bill to the House Rules Committee for a third reading.</p>	<p><a href="#">H.B. 1397 (I)</a></p>
	Electric Vehicles	<p>H.B. 2042 directs the Department of Transportation's public-private partnership office to develop a pilot program to support EV car sharing programs to serve underserved and low to moderate income communities. The bill directs the Department of Commerce to conduct a study to identify opportunities to reduce barriers to EV adoption by</p>	<p><a href="#">H.B. 2042 (P2)</a></p>

		lower income residents as well. The study would be due by June 30, 2020. The House and Senate passed the bill in April 2019.	
	Fleet Electrification	H.B. 1160 requires the Joint Transportation Committee to conduct an analysis of the electrification of public fleets in Washington. The Committee must issue a report of its findings and recommendations to the transportation committees of the legislature by September 30, 2020.	<a href="#">H.B. 1160 (P2)</a>
WI	EV Charging	In late January 2019, an application for a docket to conduct an investigation of EV policy and regulation was filed with the Wisconsin Public Service Commission (PSC). In late February 2019, a Notice of Investigation was filed, initiating the proceeding. In early April 2019, the PSC issued a request for comments to stakeholders, with responses due by May 20, 2019. The request for comments contains a list of questions to which stakeholders are asked to respond; these include questions about utility programs supporting EV infrastructure, utility rates for EV charging barriers to EV adoption, utility ownership and regulation of charging infrastructure, and EV effects on grid infrastructure and electricity markets.	<a href="#">Docket No. 5-EI-156</a>

Legislative Status Key: I = Introduced, P1 = Passed One Chamber, P2 = Passed Both Chambers, E = Enacted, D = Dead. Bill statuses are up to date as of early May 2019.

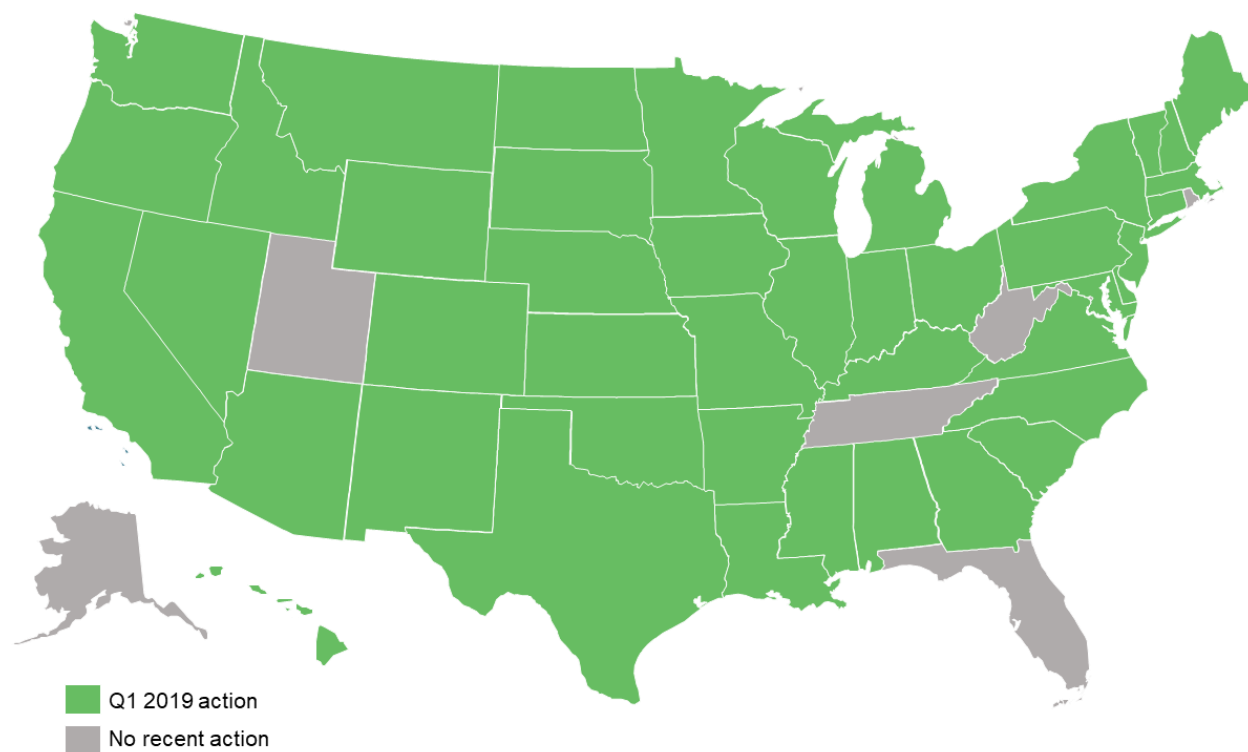
# ELECTRIC VEHICLE REGULATION

## Key Takeaways:

- In Q1 2019, 44 states considered a total of 126 changes to electric vehicle fees, rules, and regulations.
- At least 28 states considered additional fees for electric vehicles, with new or modified fees being adopted in 5 states as of early May 2019.
- The New Mexico State Legislature enacted a bill exempting electric vehicle charging stations from public utility regulation.

In Q1 2019, 44 states considered 126 actions to electric vehicle fees, rules, and regulations. Registration fees for electric vehicles was by far the most common topic of these actions, with 60 actions under consideration across 28 states. Other common topics included public utility regulation, electric bicycles, enforcement of designated electric vehicle parking, homeowner association rules on charging infrastructure, and vehicle sales by electric vehicle manufacturers.

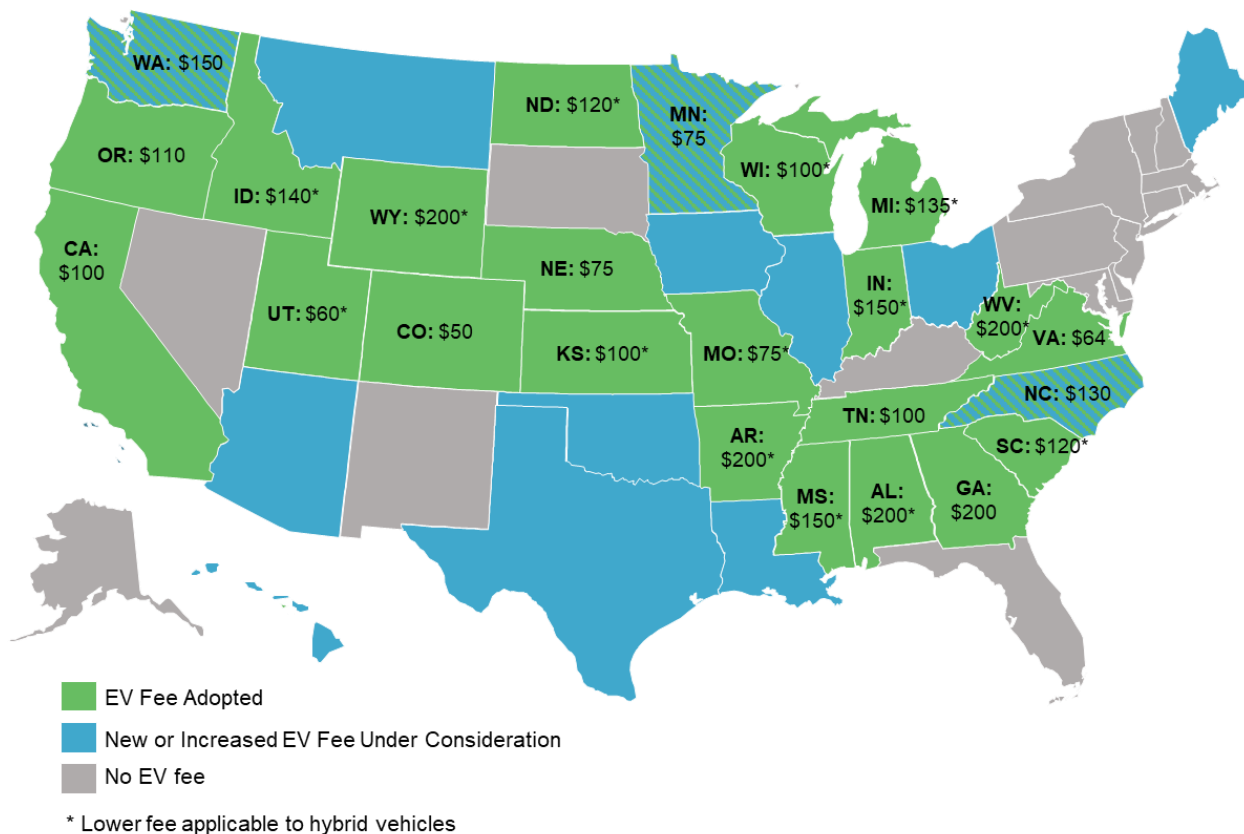
**Figure 8. State Action on Electric Vehicle Regulation (Q1 2019)**



The majority of actions related to electric vehicle fees seek to adopt or increase special registration fees for electric vehicles to counteract the associated reduction in gasoline tax revenue. As of early May, five states – Alabama, Arkansas, Kansas, North Dakota, and Wyoming – had adopted or increased electric vehicle registration fees in 2019. Legislatures in

Hawaii, Iowa, and Washington have also passed bills establishing or increasing registration fees, and are awaiting approval by the states' Governors. See Figure 9 for information on electric vehicle registration fees by state and Table X for a list of registration fee changes under consideration during Q1 2019.

**Figure 9. State Electric Vehicle Registration Fees**



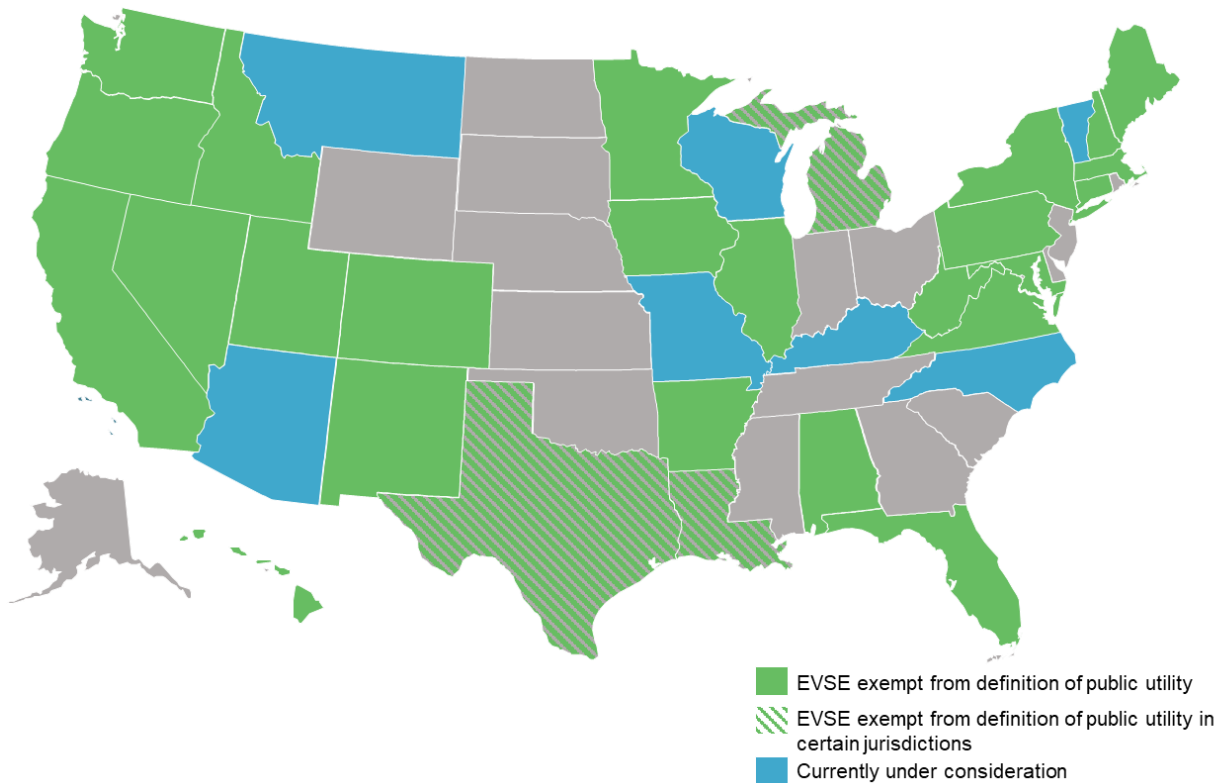
While most of the states considering electric vehicle fees are looking at fixed annual registration fees, some states are examining alternative fee structures, such as vehicle miles traveled systems or per-kWh charges on electricity used for vehicle charging. While these types of charges tend to be more closely tied to the vehicle owner's use of infrastructure and encourage efficiency, they are more complex to implement. Bills under consideration in Iowa, Nevada, and Vermont would establish surcharges on electricity used for vehicle charging, while a Hawaii bill would create a vehicle miles traveled fee.

Utilities commission regulation of electric vehicle charging stations is another major topic being addressed by states. The Virginia General Assembly enacted a bill allowing state agencies to own and operate electric vehicle charging stations without being subject to public utility regulation, and the New Mexico State Legislature enacted a bill in early April 2019 exempting the distribution of electricity for vehicle charging from qualifying an entity as a public utility. The Iowa Utilities Board published proposed rules in February 2019 that exclude electric vehicle

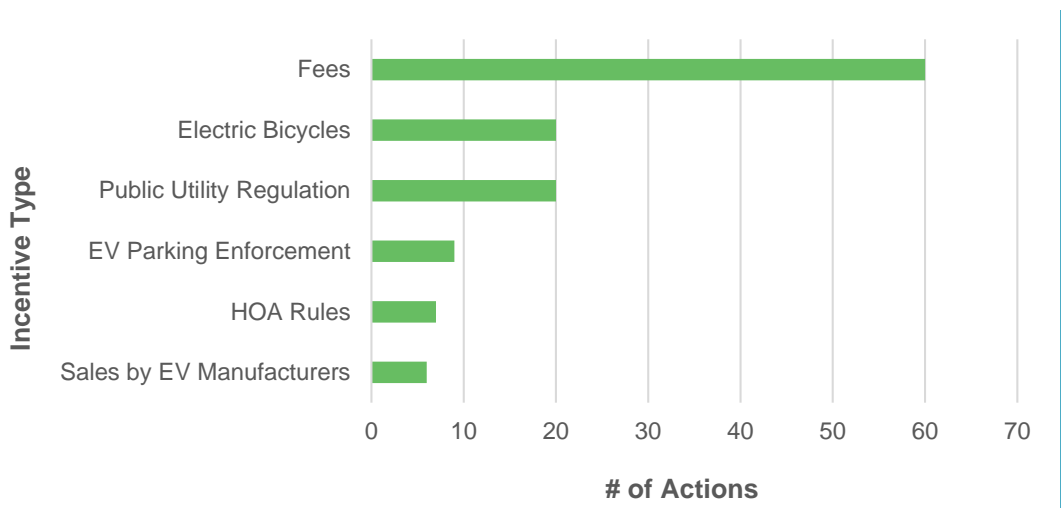


charging stations from public utility regulation, and a regulatory review of this issue is also underway in Kentucky. Several bills pending in Vermont would clarify that the Public Utility Commission does not have jurisdiction over non-utilities developing charging stations, and the Commission sent a letter to certain members of the Vermont General Assembly recommending that the legislature exempt charging stations from public utility regulation.

**Figure 10. State Regulation of Electric Vehicle Charging Stations**



**Figure 11. Most Common Types of Electric Vehicle Regulation Actions (Q1 2019)**





**Table 3. Electric Vehicle Registration Fees Under Consideration (Q1 2019)**

State	Current Fee	Proposed Fee	Status
Alabama	\$0	All-Electric: \$200 Hybrid: \$100	Approved
Alabama	\$0	All-Electric: \$250 Hybrid: \$125	Not Approved
Arizona	\$0	All-Electric: \$130 (2019), \$175 (2020), \$198 (2021) Hybrid: \$52 (2019), \$70 (2020), \$80 (2021)	Under Consideration
Arkansas	\$0	All-Electric: \$200 Hybrid: \$100	Approved
Georgia	\$200	\$25 (personal vehicle), \$75 (personal vehicle and used for commercial purposes), \$200 (not personal vehicle), \$300 (not personal vehicle and used for commercial purposes)	Under Consideration
Hawaii	\$0	\$50	Under Consideration
Iowa	\$0	All-Electric: \$130 Hybrid: \$65	Under Consideration
Iowa	\$0	All-Electric: \$65 (2020), \$97.50 (2021), \$130 (2022+) Hybrid: \$32.50 (2020), \$48.75 (2021), \$65 (2022+)	Under Consideration
Illinois	\$35 (every two years)	All-Electric: \$216 (annual) Hybrid: \$158.50 (annual)	Under Consideration
Illinois	\$35 (every two years)	EVs would be charged the same fee as non-EVs	Under Consideration
Kansas	\$0	All-Electric: \$100 Hybrid: \$50	Approved
Kansas	\$0	\$150	Under Consideration
Kentucky	\$0	\$175	Not Approved
Louisiana	\$0	All-Electric: \$300 Hybrid: \$200	Under Consideration
Maine	\$0	3,000 EVs registered: \$25 10,000 EVs registered: \$50	Under Consideration
Minnesota	\$75	All-Electric: \$250 Hybrid: \$125	Under Consideration
Minnesota	\$75	\$100	Under Consideration
Mississippi	All-Electric: \$150 Hybrid: \$75	\$0	Not Approved
Montana	\$0	Less than 6,000 lbs.: \$100 More than 6,000 lbs.: \$150	Not Approved
Nebraska	\$75	\$75 (2019), increasing by \$10 per year until reaching \$125 in 2024	Under Consideration
New Mexico	\$0	All-Electric: \$50 Hybrid: \$30	Not Approved
New Mexico	\$0	All-Electric: \$25 Hybrid: \$15	Not Approved

<b>North Carolina</b>	\$130	All-Electric: \$230 Hybrid: \$115	Under Consideration
<b>North Dakota</b>	\$0	\$120	Not Approved
<b>North Dakota</b>	\$0	All-Electric: \$120 Hybrid: \$50 Motorcycles: \$20	Approved
<b>Oklahoma</b>	\$0	All-Electric: \$125 Plug-In Hybrid: \$60 Conventional Hybrid: \$30	Under Consideration
<b>Texas</b>	\$0	All-Electric: \$200 Hybrid: \$100	Under Consideration
<b>Texas</b>	\$0	\$200	Under Consideration
<b>Texas</b>	\$0	Hybrid: \$125	Under Consideration
<b>Washington</b>	\$150	\$200	Under Consideration
<b>Wyoming</b>	\$50	All-Electric: \$200 Hybrid: \$100	Approved

**Table 4. Updates on Electric Vehicle Regulation (Q1 2019)**

State	Sub-Topic	Description	Source
AL	Fees	H.B. 2B establishes a \$200 annual registration fee for battery EVs and a \$100 annual registration fee for PHEVs. Beginning on July 1, 2023 and every four years after, these fees increase by \$3. The fee will be reduced by any future additional annual federal surcharge for registration fee, but will not be reduced below \$150 for a battery EV and \$75 for a PHEV. The bill also creates an Electric Transportation Infrastructure Grant Program to provide grants for EV charging infrastructure. The first \$150 and first \$75 of the EV and PHEV fee revenues will be provided to the state (66.67%) counties (25%), and cities (8.33%). The remaining revenue will go into the Rebuild Alabama Fund to fund the Electric Transportation Infrastructure Grant Program. Once EV and PHEV registrations reach 4% of total vehicle registration in the state, the fees will be reduced to \$150 for EVs and \$75 for PHEVs, and all funds will go to the state, counties, and cities. The bill was signed into law in March 2019.	<a href="#">H.B. 2B (E)</a>
	Fees	H.B. 81 establishes a \$250 annual registration fee for battery EVs and a \$125 annual registration fee for PHEVs. Beginning on July 1, 2023 and every four years after, these fees increase by \$5. The fee will be reduced by any future additional annual federal surcharge for registration fee, but will not be reduced below \$150 for a battery EV and \$75 for a PHEV. The bill also creates an Electric Transportation Infrastructure Grant Program to provide grants for EV charging infrastructure. The first \$150 and first \$75 of the EV and PHEV fee revenues will be provided to the state (66.67%) counties (25%), and cities (8.33%). The remaining revenue will go into the Rebuild Alabama Fund to fund the Electric Transportation Infrastructure Grant Program. Once EV and PHEV registrations reach 2% of total vehicle registration in the state, all funds will go to the state, counties, and cities.	<a href="#">H.B. 81 (I)</a>
AR	Fees	S.B. 336 adopts an additional registration fee of \$200 for EVs and \$100 for hybrid vehicles.	<a href="#">S.B. 336 (E)</a>
AZ	Consumer Protection Standards, Cost Recovery, Public Utility Regulation	In August 2018, the Arizona Corporation Commission (ACC) opened a rulemaking docket to evaluate proposed modifications to many of the state's energy rules. Among the rules to be addressed are those pertaining to EVs. In December 2018, the ACC Staff filed a draft policy statement on EVs, which directs utilities and stakeholders to develop best practices, including consumer protection provisions. The policy statement also directs utilities consider EVs in integrated resource plans and permits utilities to recover costs of deploying EV infrastructure in low utilization areas in the rate base. The ACC Staff's memo also discusses Commission regulation of EV charging stations and the unanswered question of whether	<a href="#">Docket No. RU-00000A-18-0284</a>  <a href="#">Decision No. 77044 (Electric Vehicle Policy Statement)</a>  <a href="#">Draft Implementation Plan</a>

		<p>these stations are engaged in furnishing electricity for fuel or power to the public. The Staff noted that it does not believe it is necessary to answer the question yet, and the issue is not included in the policy statement. Later in December, the ACC Staff filed an amendment to its proposed policy statement, specifying that only prudent costs for EV charging stations may be included in the rate base. The ACC adopted the Staff's EV policy statement in January 2019.</p> <p>A stakeholder meeting was March 2019 to discuss implementation of the EV policy statement. Stakeholders filed comments following the meeting, addressing a variety of issues. The ACC Staff filed a draft implementation plan for the EV policy statement in late March 2019, which provides guidelines to regulated utilities on how to best implement the policy. Cost recovery for approved pilot programs will be addressed in rate cases. The Residential Utility Consumer Office filed a legal brief regarding whether an EV charging station owner is a public utility in April 2019. The brief concludes that owners and operators of charging stations are public utilities and that light regulation would be appropriate.</p>	
	Fees	H.B. 2126 amends an existing fee for alternative fuel vehicles. The fee equals \$4 for every \$100 of vehicle value. Currently, for vehicles purchased before January 1, 2020, the value is set to an unspecified percentage of the manufacturer's base retail price for the first year. H.B. 2126 extends this date to January 1, 2022, changes "purchased" to "registered", and sets the percentage at 1%. For vehicles registered during 2022, the value is set to 20% of the manufacturer's base retail price (a reduction from 30%). After 2022, the fee is the standard fee for all vehicles, pursuant to Section 28-5801.	<a href="#">H.B. 2126 (P1)</a>
	Fees	H.B. 2536 adopts an additional annual fee on electric and hybrid vehicles. The fee for all-electric vehicles is \$130 for Fiscal Year 2019-2020, \$175 for FY 2020-2021, and \$198 for FY 2021-2022. The fee for hybrid vehicles is \$52 for FY-2019-2020, \$70 for FY 2020-2021, and \$80 for FY 2021-2022. For following years, the FY 2021-2022 fees will be adjusted to reflect changes in the gross domestic product implicit price deflator.	<a href="#">H.B. 2536 (I)</a>
	Fees	H.B. 2549 repeals an existing fee on alternative fuel vehicles (annual license tax).	<a href="#">H.B. 2549 (I)</a>
CA	Cost Recovery, EVSE Ownership	In December 2018, the California Public Utilities Commission opened a broad rulemaking proceeding related to transportation electrification. Among the issues to be addressed in the proceeding are cost recovery of transportation electrification investments (including the appropriate cost recovery mechanism) and appropriate ownership models for different types of transportation	<a href="#">Docket No. R-18-12-006</a>

		electrification investments. A prehearing conference was held in early March 2019.	
	EV Charging Payment	A.B. 1424 requires EV charging stations to provide at least two of the following payment options to customers: radio-frequency identification (RFID) card payment, near field communication or other mobile technology payment, vehicle telematics payment, or credit card payment.	<a href="#">A.B. 1424 (I)</a>
	Wholesale Market Participation	While the CPUC explored SDG&E's Transportation Electrification Standard Review proposal in Docket No. A. 17-01-020, SDG&E filed a new application in January 2018 for two additional Standard Review projects, totaling \$152.3 million. The proposed Medium-Duty/Heavy-Duty EV Charging Infrastructure Program would target charging equipment for approximately 3,100 for Class 2-8 electric vehicles such as forklifts and transport refrigeration units. The Vehicle to Grid pilot program would utilize ten electric school buses as distributed energy resources. The vehicles will charge during the day and discharge to bid into the CAISO market when called upon in the late afternoon and evenings to provide system level grid services. Data would be collected for one year to examine the costs, benefits, and scalability of vehicle to grid. Several parties protested the application, arguing that the CPUC should delay the review of this application until the projects from Docket No. A. 17-01-020 are complete and have been assessed. A Scoping Memo and Ruling filed in March 2018 denied the protests and agreed to hear this application on its own merits. Testimony was scheduled for August and September 2018. SDG&E filed a motion to suspend the procedural schedule in September 2018. In its motion, SDG&E explained that it has reached an agreement in principle on terms for a settlement with many of the active parties. The developing settlement includes a revised proposal, so SDG&E argues that it would be unproductive to prepare testimony for a proposal that will soon be substantially revised. In a September ruling, the Commission granted SDG&E's request to suspend the procedural schedule. A settlement agreement was filed in November 2018. The settlement features some significant changes to the Medium-Duty/Heavy-Duty Program. Notably, the settling parties agree that SDG&E will only own and operate the make-ready infrastructure on the utility's side of the meter, rather than the actual charging equipment. The budget for the program was also reduced from \$150.1 million to \$107.4 million. The settlement agreement does not make any significant changes to the Vehicle to Grid program. Comments on the settlement agreement were filed in early December 2018. A prehearing conference was held in February 2019.	<a href="#">Docket No. A. 18-01-012</a> <a href="#">Settlement Agreement</a>
CO	Cost Recovery,	S.B. 77 allows electric utilities to build EV charging stations as regulated services and recover costs for EV support facilities.	<a href="#">S.B. 77 (P2)</a>

	Public Utility Regulation		
	EV Parking Enforcement	H.B. 1298 prohibits non-EVs from parking in spaces with signs identifying them as a charging station, and also prohibits EVs from parking in those spaces if not charging, with exceptions for overnight parking.	<a href="#">H.B. 1298 (I)</a>
	Sales by Manufacturers	H.B. 1325 allows EV manufacturers to own and operate dealerships that sell electric cars that they produce.	<a href="#">H.B. 1325 (I)</a>
CT	Sales by Manufacturers	H.B. 5285 authorizes the Commissioner of Motor Vehicles to issue a new or used car dealer's license to an EV manufacturer.	<a href="#">H.B. 5285 (I)</a>
	Sales by Manufacturers	H.B. 6589 allows EV manufacturers without existing relationships with new or used car dealers to decide where and how to sell or service EVs	<a href="#">H.B. 6589 (I)</a>
	Sales by Manufacturers	H.B. 7142 authorizes vehicle manufacturers to be issued a new or used car dealer's license if the manufacturer only produces EVs and does not have a franchise agreement with any new car dealer in the state.	<a href="#">H.B. 7142 (I)</a>
DE	Equipment Standards	S.B. 12 requires grid-integrated EVs to meet safety and performance standards established by either the Institute of Electrical and Electronic Engineers, UL, or the Society of Automotive Engineers. The Senate passed the bill in March 2019, and the House passed the bill in early May.	<a href="#">S.B. 12 (P2)</a>
GA	Fees	H.B. 383 exempts EVs and low-speed vehicles, defined as those with a max speed of 25 miles per hour, from the annual license fee.	<a href="#">H.B. 383 (I)</a>
	Fees	H.B. 429 reduces the annual license fees for alternative fueled vehicles.	<a href="#">H.B. 429 (I)</a>
HI	Electric Bicycles	H.B. 812, as introduced, adds low-speed electric bicycles to the definition of bicycle. The bill prohibits anyone under the age of 18 from operating a low-speed electric bicycle and requires low-speed electric bicycles to be registered. The bill also implements a \$30 registration fee. The bill went to conference committee in April 2019. The amended bill, passed by both chambers, keeps the provisions of the original bill, but changes the legal age for operating an electric bicycle to 15. S.B. 1078 includes the same original provisions as H.B. 812 and passed the Senate in March 2019.	<a href="#">H.B. 812 (P2)</a> <a href="#">S.B. 1078 (P1)</a>
	Fees	H.B. 1174 requires EVs to pay an annual vehicle miles traveled fee, in addition to other existing fees. The rate of the fee is left blank in the legislation.	<a href="#">H.B. 1174 (I)</a>
	Fees	S.B. 409, as introduced, establishes a \$15 annual registration surcharge for EVs, plug-in hybrid EVs,	<a href="#">S.B. 409 (P2)</a>

		alternative fuel vehicles, and hybrid vehicles. The bill passed the Senate in March 2019. The bill was amended by the House and passed in April 2019. The Senate disagreed with the House's amendments and the two chambers held a conference committee. The amended version of the bill, passed by both chambers, sets the annual registration fee at \$50.	
IA	EV Parking Enforcement	H.B. 509 prohibits non-electric vehicles from being parked in spaces designated for charging the batteries of EVs.	<a href="#">H.B. 509 (I)</a>
	Fees	H.B. 725 and S.B. 473 require owners of battery EVs to pay a registration fee of \$130 per year, and owners of plug-in hybrid vehicles to pay a registration fee of \$65 per year. The bills also establish an excise tax of 2.6 cents per kWh on electricity used for vehicle charging. The tax is to be collected by the "licensed electric fuel dealer" (charging station operator). Anyone selling or dispensing electricity for vehicle charging will be required to obtain a license to do so. H.B. 725 was withdrawn in April 2019.	<a href="#">H.B. 725 (D)</a> <a href="#">S.B. 473 (I)</a>
	Fees	H.B. 767 requires EV owners to pay a registration fee of \$65 in 2020, \$97.50 in 2021, and \$130 in following years, and would require plug-in hybrid owners to pay a registration fee of \$32.50 in 2020, \$48.75 in 2021, and \$65 in following years. Electric motorcycle owners would need to pay a registration fee of \$4.50 in 2020, \$6.75 in 2021, and \$9 in following years. This bill passed the House in April 2019.	<a href="#">H.B. 767 (P1)</a>
	Public Utility Regulation	H.B. 520 establishes that EV charging stations are not electric utilities and are not subject to utility regulation. It would also prohibit electric utilities from imposing discriminatory rates, charges, terms, or conditions on charging stations.	<a href="#">H.B. 520 (I)</a>
	Public Utility Regulation	In July 2018, Iowa 80 Truckstop and Truckstops of Iowa filed a request for a declaratory order clarifying that electricity sold for EV charging at commercial and public charging stations is not considered a resale of electricity and that fuel retailers may charge for charging service by the kWh. The Iowa Utilities Board (IUB) issued an order declining to issue a declaratory order in August 2018. Instead, the IUB opened a rulemaking proceeding to address this issue and receive stakeholder input. A workshop was held in October 2018, featuring presentations from the Office of Consumer Advocate, potential EV infrastructure vendors, electric utilities, and environmental groups. On February 6, 2019, the IUB issued an order requesting comments on a proposed rule. The proposed rule would exclude EV charging stations from regulation as public utilities, but would allow utilities to set tariffs for EV charging stations to ensure coordination between utilities and EV charging providers. Comments filed by MidAmerican Energy, Interstate Power	<a href="#">Docket No. RMU-2018-0100</a> <a href="#">Docket No. TF-2017-0305</a> <a href="#">Order</a>



		<p>&amp; Light, and Iowa cooperative and municipal utilities were generally in agreement with the proposed rule, but suggested that the rule be edited to require that EV charging providers buy electricity from utilities in order to be exempt from utility regulation, rather than generating it themselves. Comments filed by environmental groups also generally supported the rules, but suggested that all EV charging stations, not just those buying electricity from utilities, be exempted from utility regulation. The Office of the Consumer Advocate filed comments in support of the proposed rules. On April 19, 2019, the IUB issued an order adopting the proposed rules with a modification prohibiting utilities from restricting the method of sale for electricity from charging stations through their tariffs providing electricity to the charging station.</p>	
ID	Electric Bicycles	H.B. 76 defines electric-assisted bicycles and establishes three classes of these bicycles, based on the maximum assisted speed. The bill establishes labeling requirements for electric-assisted bicycles, specifies the types of paths electric-assisted bicycles may be operated on, and specifies that electric bicycles are not subject to licensing requirements. The Governor signed the bill in March 2019.	<a href="#">H.B. 76 (E)</a>
IL	Fees	H.B. 2053 increases the maximum registration fee for EVs to \$216 for a one-year period (currently \$35 for a two-year period) and the maximum registration for plug-in hybrid vehicles to \$158.50 for a one-year period.	<a href="#">H.B. 2053 (I)</a>
	Fees	H.B. 2752 requires the registration fee for EVs to be the same as that for non-electric motor vehicles, and removes the current \$18 limit on EV registration fees.	<a href="#">H.B. 2752 (I)</a>
	Fees	H.B. 2981 removes the existing registration fee discount for EVs, placing their registration fee at the level charged for non-electric vehicles.	<a href="#">H.B. 2981 (I)</a>
	Fees	H.B. 3387 requires EV registration plates to be provided to persons with disabilities (exempting them from registration fees).	<a href="#">H.B. 3387 (I)</a>
	Fees	H.B. 3823 sets the registration fee for EVs at three times the rate for an equivalent internal combustion vehicle, and require all funds resulting from this increase to be placed in the Transportation Investment Fund.	<a href="#">H.B. 3823 (I)</a>
	Fees	S.B. 1887 eliminates a current rule allowing EVs to be registered for a fee of no more than \$35 for a two-year period.	<a href="#">S.B. 1887 (I)</a>
IN	Electric Bicycles	H.B. 1236 and S.B. 361 establish a legal definition for electric bicycles and determines that electric bicycles are to be regulated as bicycles rather than motor vehicles. The House passed H.B. 1236 in February 2019, and the	<a href="#">H.B. 1236 (E)</a> <a href="#">S.B. 361 (I)</a>



		Senate passed the bill in March. The Governor signed the bill in early May 2019.	
	Fees	H.B. 1670 removes the inflation adjustment from the additional fees charged to register electric and hybrid vehicles.	<a href="#">H.B. 1670 (I)</a>
KS	Fees	H.B. 2214 establishes an annual registration fee for all-electric vehicles of \$100, with a \$50 fee for conventional and plug-in hybrids. The Governor signed the bill into law in April 2019.	<a href="#">H.B. 2214 (E)</a>
	Fees	H.B. 2372 and S.B. 189 adopt an additional registration fee of \$150 for EVs.	<a href="#">H.B. 2372 (P1)</a> <a href="#">S.B. 189 (I)</a>
KY	Fees	H.B. 517 sets a base registration fee of \$175 for EVs, to be adjusted according to changes to the gas tax. The bill did not advance during the 2019 legislative session.	<a href="#">H.B. 517 (D)</a>
	Public Utility Regulation	In late November 2018, the Kentucky Public Service Commission opened a proceeding to conduct a review of its jurisdiction over EV charging stations. Specifically, the question being considered is whether EV charging stations count as "electric utilities" as defined under Kentucky law, which would make them subject to the Commission's jurisdiction. Parties filed initial comments in early March 2019. Comments from the Kentucky Office of Energy Policy recommended not subjecting EV charging to utility regulation. Kentucky Utilities and Louisville Gas & Electric filed comments supporting allowing third-party EV charging stations to operate outside of utility regulation, but also supporting the ability of utility companies to own and operate EV charging stations. The Kentucky Association of Electric Cooperatives also supported exempting EV charging stations from utility regulation, but only if the charging stations were not generating their own power. Comments from EV charging companies (ChargePoint and Greenlots) also supported exempting EV charging from utility regulation, although Greenlots supported a role for utilities in EV infrastructure, as did the Alliance for Transportation Electrification.	<a href="#">Docket No. 2018-00372</a>
LA	Fees	H.B. 542 establishes an additional annual fee of \$300 for EVs and \$200 for hybrid vehicles.	<a href="#">H.B. 542 (I)</a>
MA	Disclosures	H. 2873 authorizes the registrar of motor vehicles to disclose to distribution companies and municipal light plants the type of vehicle and owner address for EVs registered in their service territories. The information is also to be disclosed to the Department of Public Utilities and Department of Energy Resources. Distribution companies and municipal light plants are prohibited from selling, sharing, or further disclosing this information.	<a href="#">H. 2873 (I)</a>

	Electric Bicycles	S. 2071 establishes three classes of electric bicycles, based on their maximum assisted speed. The bill sets forth certain rules related to electric bicycles, including where electric bicycles may be operated, labeling requirements, and age restrictions.	<a href="#">S. 2071 (I)</a>
	EV Parking Enforcement	H. 3052 establishes fines for parking a non-EV in a public parking space equipped with an EV charging station. The fine is \$100 for the first offense and \$200 for the second or subsequent offense.	<a href="#">H. 3052 (I)</a>
	HOA Rules	H. 2982 prevents associations, historic districts, and neighborhood conservation districts from prohibiting or unreasonably restricting lot or unit owners from installing EV charging stations. The bill sets forth rules for installing charging stations, including that the stations must be installed at the owner's expense and by a licensed contractor and/or electrician. The bill authorizes associations to install charging stations in common areas for use by all members if the association develops terms for use.	<a href="#">H. 2982 (I)</a>
	HOA Rules	H. 4069 specifies that homeowner associations cannot prevent owners from installing EV charging stations. It also sets rules and regulations for the installation and operation of such stations. The Governor signed the bill into law in early January 2019.	<a href="#">H. 4069 (E)</a>
MD	Cost Recovery	H.B. 1331 prohibits the Public Service Commission from establishing or continuing a pilot program related to EV charging infrastructure until the Task Force to Study Electric Charging Station Infrastructure reviews the pilot program and reports its findings and recommendations to the Governor and General Assembly, and the General Assembly enacts a law to approve the pilot program.	<a href="#">H.B. 1331 (I)</a>
	Electric Bicycles	H.B. 939 and S.B. 935 clarify that electric bicycles are not included in the definition of "off-highway recreational vehicle" and may be operated in any place where bicycles are permitted. The bills also establish certain operating requirements for electric bicycles. The Governor signed the bills into law in April 2019.	<a href="#">H.B. 939 (E)</a> <a href="#">S.B. 935 (E)</a>
	EV Parking Enforcement	S.B. 316 establishes rules related to parking spaces designated for EVs. The bill states that it is a violation of law, subject to fines and towing, for non-EVs to park in a space designated for EVs.	<a href="#">S.B. 316 (I)</a>
	HOA Rules	H.B. 826 provides that HOAs and similar bodies cannot unreasonably restrict a homeowner from installing EV charging equipment.	<a href="#">H.B. 826 (P1)</a>
	HOA Rules	S.B. 822 provides that HOAs and similar bodies cannot unreasonably restrict a homeowner from installing EV charging equipment.	<a href="#">S.B. 822 (I)</a>

ME	Electric Bicycles	L.D. 1222 establishes three classes of electric bicycles, based on maximum assisted speed. The bill adopts certain requirements for electric bicycles, including labeling, age restrictions for use, and where electric bicycles may be operated.	<a href="#">L.D. 1222 (I)</a>
	Fees	L.D. 1257 adopts an additional registration fee of \$25 once there are at least 3,000 registered EVs in the state. The fee increases to \$50 once there are at least 10,000 registered EVs. The bill also directs the Commissioner of Transportation to review short and long term planning and infrastructure investments of the Department of Transportation and make recommendations to address increasing number of EVs, among other considerations. The Commissioner is to implement two pilot programs to test alternative structures for road usage fees, including a vehicle miles traveled fee.	<a href="#">L.D. 1257 (I)</a>
MI	Public Utility Regulation	In its most recent rate case, filed in July 2018, DTE requested cost recovery for a new EV program, Charging Forward. The three primary components of the Charging Forward program include customer education and outreach, residential smart charger support, and charging infrastructure enablement. During the course of the hearing, DTE argued against EVSE owners being able to resell electricity. A proposal for decision was filed in early March 2019. The proposal for decision addressed the issue, finding that DTE Electric should be directed to file amended tariffs to permit sale-for-resale for commercial EV charging site hosts.	<a href="#">Docket No. U-20162</a>  <a href="#">Proposal for Decision</a>
MN	Fees	H.F. 466 establishes an excise tax for alternative fuel vehicles equal to the total revenues received from the gasoline tax for the prior year divided by the total number of passenger automobiles, one-ton pickup trucks, motorcycles, and recreational vehicles registered in Minnesota.	<a href="#">H.F. 466 (I)</a>
	Fees	H.F. 2026 and S.F. 1409 increase the annual surcharge for EVs from \$75 to \$250, and enact a new surcharge for hybrid vehicles of \$125	<a href="#">H.F. 2026 (I)</a> <a href="#">S.F. 1409 (I)</a>
	Fees	H.F. 2403 and S.F. 2360 increase the additional fee for all-electric vehicles from \$75 to \$100.	<a href="#">H.F. 2403 (I)</a> <a href="#">S.F. 2360 (I)</a>
MO	Fees	S.B. 201 replaces Missouri's current horsepower-based registration fee system with a system based on gas mileage. Alternative fuel vehicles would pay a fee equivalent to that of vehicles with 60 miles per gallon.	<a href="#">S.B. 201 (I)</a>
	Public Utility Regulation	H.B. 287 and S.B. 296 modify the definition of a public utility to exclude persons and corporations that furnish electricity exclusively to charge electric or hybrid vehicles. The House passed the H.B. 287 in April 2019.	<a href="#">H.B. 287 (P1)</a> <a href="#">S.B. 296 (I)</a>

MS	Fees	H.B. 459 exempts EVs and hybrid vehicles that are owned by certain disabled veterans and spouses of deceased disabled veterans from the additional annual EV registration fee.	<a href="#">H.B. 459 (D)</a>
	Fees	H.B. 475 repeals the additional annual hybrid vehicle registration fee.	<a href="#">H.B. 475 (D)</a>
	Fees	H.B. 604 repeals the additional annual EV and hybrid vehicle registration fees.	<a href="#">H.B. 604 (D)</a>
	Fees	H.B. 697 exempts EVs and hybrid vehicles that are owned by certain disabled veterans and spouses of deceased disabled veterans from the additional annual EV registration fee.	<a href="#">H.B. 697 (D)</a>
	Fees	H.B. 832 repeals the additional annual EV and hybrid vehicle registration fees.	<a href="#">H.B. 832 (D)</a>
	Fees	H.B. 882 repeals the additional annual EV and hybrid vehicle registration fees.	<a href="#">H.B. 882 (D)</a>
	Fees	H.B. 907 repeals the additional annual hybrid vehicle registration fee.	<a href="#">H.B. 907 (D)</a>
	Fees	S.B. 2002, introduced in January 2019, repeals the annual taxes on EVs and hybrid vehicles and directs the Department of Revenue to refund payments made prior to July 1, 2019.	<a href="#">S.B. 2002 (D)</a>
	Fees	S.B. 2204 provides a credit for the additional EV or hybrid registration fee paid when the owner sells transfers ownership of, or disposes of the vehicle.	<a href="#">S.B. 2204 (D)</a>
	Fees	S.B. 2265 repeals the additional annual hybrid vehicle registration fee.	<a href="#">S.B. 2265 (D)</a>
MT	EV Parking Enforcement	S.B. 173 establishes a penalty of \$25 for anyone stopping, standing, or parking a non-electric vehicle in at an EV charging station. The bill also requires EV charging stations to be marked with a sign including the charging capability and the penalty. The Senate passed the bill in March 2019, but the bill did not advance in the House.	<a href="#">S.B. 173 (D)</a>
	Fees	H.B. 764 establishes an additional annual fee of \$100 for EVs and PHEVs less than 6,000 pounds or with a manufacturer's rated capacity of one ton or less. The fee is \$150 for EVs and PHEVs with a weight of 6,000 pounds or more or with a manufacturer's rated capacity of more than one ton. These fees will go into a new Electric Vehicle Fund, which is to be used for the planning, development, implementation, and administration of programs, policies, and projects related to EV adoption and use in the state. The bill did not advance during the 2019 legislative session.	<a href="#">H.B. 764 (D)</a>

	Public Utility Regulation	H.B. 456 clarifies that entities operating EV charging stations are not public utilities. However, the bill prohibits charges for fueling EVs from being based on the cost of electricity. The House passed the bill in February 2019, and the Senate passed the bill in April.	<a href="#">H.B. 456 (P2)</a>
NC	EV Parking Enforcement	H.B. 788 and S.B. 511 establish a penalty of \$100 for any person parking in an EV charging station and not connecting to the charging equipment.	<a href="#">H.B. 788 (I)</a> <a href="#">S.B. 511 (I)</a>
	Fees	S.B. 446, as amended, steadily increases the registration and renewal fees for EVs and PHEVs. The fee will start in 2020 at \$230 for EVs and \$115 for PHEVs, and will be recalculated annually based on a formula. As originally introduced, the EV fee would have started at \$175 and reached \$275 in 2022. North Carolina currently has a \$130 fee for EVs.	<a href="#">S.B. 446 (I)</a>
	Public Utility Regulation	H.B. 329 clarifies that the term public utility does not include a person who uses an EV charging station to resell electricity to the public for compensation. The House passed the bill in April 2019.	<a href="#">H.B. 329 (P1)</a>
ND	EV Parking Enforcement	H.B. 1405 prohibits non-EVs from parking in or blocking EV parking spaces. An amended version of the bill passed the House in February 2019. The amended bill requires reserved parking spaces for EV charging to be designated by a sign and indicate that unauthorized use is a non-moving violation and will result in a \$50 fee. The Governor signed the bill into law in early April 2019.	<a href="#">H.B. 1405 (E)</a>
	Fees	H.B. 1238 creates a new registration fee of \$180 for all-electric vehicles. For renewal registrations, owners may instead opt to pay a fee of 1.5 cents per mile for mile traveled during the previous 12 months. Fees collected are to be deposited in the highway tax distribution fund. An amendment was adopted by the House, which changes the registration fee for both new and renewal registrations to \$120 per year. The bill failed to pass the Senate in March 2019	<a href="#">H.B. 1238 (D)</a>
	Fees	S.B. 2061 creates a new annual registration fee for EVs of \$248. The fee for hybrid vehicles is \$71. Fees collected are to be deposited in the highway tax distribution fund. An amendment passed in January 2019, reducing the proposed annual registration fee for EVs to \$110 and for hybrid vehicles to \$50. The amended bill passed the Senate later in January. The House amended the bill to increase the EV fee to \$120 and specify that the hybrid vehicle fee is for plug-in hybrids. The amendment also establishes a \$20 fee for electric motorcycles. The Senate concurred with the House amendments, and the Governor signed the bill in April 2019.	<a href="#">S.B. 2061 (E)</a>

NE	Fees	L.B. 366 sets a registration fee for alternative fuel vehicles at \$75 in 2019, increasing by \$10 each year until 2024, when it would be \$125.	<a href="#">L.B. 366 (I)</a>
NH	Electric Bicycles	H.B. 148 creates new rules for the operation of electric bicycles, including age requirements and restrictions on the types of paths that electric bicycles may be ridden on. The bill requires that beginning in 2020, manufacturers and distributors of electric bicycles must label the bicycles with classification number, top assisted speed, and motor wattage. The House passed the bill in March 2019, and the Senate passed the bill in April.	<a href="#">H.B. 148 (P2)</a>
NJ	Electric Bicycles	Companion bills A.B. 1810 and S.B. 731 allow operation of low-speed electric bicycles on streets, highways, sidewalks, and bicycle paths. The bills also specify that an operator of a low-speed electric bicycle is not required to register the low-speed electric bicycle, furnish proof of insurance, or have a driver's license. S.B. 731 passed the Senate in early July 2018. A floor amendment passed in January 2019, removing provisions that a prohibition on operating electric bicycles on sidewalks is the default position. The amendment also treats electric bicycles with a potential speed over 20 miles per hour and up to 28 miles per hour as motorized bicycles (mopeds). The amended bill passed the House unanimously in February. The amended bill passed the Senate in March 2019.	<a href="#">A.B. 1810 (I)</a> <a href="#">S.B. 731 (P2)</a>
	EVSE Fees, HOA Rules, Public Utility Regulation, Utility Operation	A.B. 1376 allows utilities to operate public EV charging stations as a regulated service in underserved markets. The bill also provides that the Board of Public Utilities cannot regulate the rates and fees charged by non-utility operators of public EV charging stations. Furthermore, the bill deems EV charging a service rather than a sale of electricity, and notes that a person owning, controlling, operating, or managing an EV charging station will not be deemed a public utility due to these services. Additionally, the bill disallows public EV charging station operators from charging membership or subscription fees for station use. Charging station owners and operators are directed to develop payment methods that allow access to the general public. Finally, the bill directs the Department of Community Affairs, upon request, to determine on a case-by-case basis whether or not a planned real estate development has placed an unreasonable restriction on location or operation of EV charging equipment in the development. Unreasonable restrictions are prohibited.	<a href="#">A.B. 1376 (I)</a>
	HOA Rules, Multi-Unit EVSE Rules	A.B. 1030 and S.B. 2421 remove potential obstacles to and promotes the installation of EVSE by prohibiting community associations from adopting or enforcing rules to ban EV charging stations. The bill disallows community associations, such as homeowner associations and condominiums, from unreasonably restricting the installation of EV charging equipment, and these	<a href="#">A.B. 1030 (I)</a> <a href="#">S.B. 2421 (P1)</a>



		associations could be liable for a civil penalty for doing so. The bill outlines guidelines for managing issues related to cost and access to charging stations as a "common element" for all members of the association. The Senate passed S.B. 2421 in March 2019.	
NM	Fees	H.B. 6 and S.B. 421 establish an additional annual registration fee for electric and hybrid vehicles. The fee is \$50 for EVs and \$30 for hybrid vehicles. H.B. 521 was amended to remove the fee provisions before it was enacted.	<a href="#">H.B. 6 (Relevant Provisions Amended Out)</a>  <a href="#">S.B. 421 (D)</a>
	Fees	H.B. 185 and S.B. 333 create a new registration fee for EVs. The annual fee is \$25 for EVs and \$15 for PHEVs. The bills did not advance during the 2019 legislative session.	<a href="#">H.B. 185 (D)</a>  <a href="#">S.B. 333 (D)</a>
	Public Utility Regulation	H.B. 521 exempts people distributing electricity for vehicular fuel from the definition of a public utility. The Governor signed the bill in April 2019.	<a href="#">H.B. 521 (E)</a>
	Sales by Manufacturers	H.B. 294 allows motor vehicle manufacturers that sell only battery or fuel cell powered EVs to be licensed as motor vehicle dealers. The bill did not advance during the 2019 legislative session.	<a href="#">H.B. 294 (D)</a>
NV	EV Parking Enforcement	S.B. 428 makes it unlawful for a person to park a vehicle in a space designated for charging EVs.	<a href="#">S.B. 428 (P1)</a>
	Fees	S.B. 114 imposes a state surcharge of 10% on the total amount of each sale of electric service through a charging station to charge the battery of an EV or a PHEV.	<a href="#">S.B. 114 (I)</a>
NY	Cost Recovery, Electric Bicycles, Public Utility Regulation	A.B. 2008 allows the New York Power Authority to develop EV charging stations and prohibits electric bicycle use on state highways. This bill was substituted by S.B. 1508 in late March 2019, and passed the Assembly. The Governor signed the bill into law on April 12, 2019.	<a href="#">A.B. 2008 (E)</a>  <a href="#">S.B. 1508 (E)</a>
	Electric Bicycles	A.B. 1388 defines electric bicycles as bicycles with pedals and electric motors less than 150 watts that can operate at up to 20 miles per hour. The bill makes laws relevant to bicycles applicable to electric bicycles, including prohibiting use on any public highway. The bill prohibits tampering with the electric motor.	<a href="#">A.B. 1388 (I)</a>  <a href="#">S.B. 1591 (I)</a>
	Electric Bicycles	A.B. 2606 defines electric bicycles as having an electric motor with a power output less than 750 watts and a maximum speed of less than 20 miles per hour. The bill requires electric bicycles to comply with all regulations applicable to bicycles.	<a href="#">A.B. 2606 (I)</a>

	Electric Bicycles	A.B. 4990 and S.B. 4621 require electric-assisted bicycle packaging to contain a notice that operation of the vehicle may be unlawful on public roads.	<a href="#">A.B. 4990 (I)</a> <a href="#">S.B. 4621 (I)</a>
	Electric Bicycles	A.B. 6189 creates a legal definition for electric-assisted bicycles and establishes rules for their usage on public roads; electric-assisted bicycles would be subject to the same traffic rules as automobiles.	<a href="#">A.B. 6189 (I)</a>
	HOA Rules	A.B. 6338 and S.B. 5157 prohibit condominium rules that prohibit or unreasonably restrict the installation or use of EV charging stations.	<a href="#">A.B. 6338 (I)</a> <a href="#">S.B. 5157 (I)</a>
OH	Electric Bicycles	H.B. 250 defines an electric bicycle and specifically notes that they are not motor vehicles, mopeds, or motor bicycles. The Governor signed the bill into law in January 2019.	<a href="#">H.B. 250 (E)</a>
	Fees	H.B. 62, as approved by both the House and Senate, establishes an additional annual registration fee of \$200 for EVs and \$100 for hybrid vehicles effective January 1, 2020. The House passed the bill in March 2019. The Senate amended the bill and passed it in March 2019. The House refused the Senate amendments and a conference committee was established. Both chambers passed the resulting bill in April 2019.	<a href="#">H.B. 62 (P2)</a>
OK	Electric Bicycles	H.B. 1265 defines electric-assisted bicycles and creates three classes of electric-assisted bicycles, based on the maximum assisted speed. The bill adopts certain requirements for electric-assisted bicycles related to labeling, age restrictions, and locations where they may be operated. The Governor signed the bill in April 2019.	<a href="#">H.B. 1265 (E)</a>
	Fees	H.B. 1950 adopts additional registration fees for hybrid and electric vehicles of \$30 (conventional hybrid), \$60 (plug-in hybrid), and \$125 (full electric). The title was stricken in March 2019.	<a href="#">H.B. 1950 (I)</a>
	Fees	S.B. 802 authorizes the Department of Labor to inspect and permit public EV charging stations. The bill would require municipal permits for the installation of EV charging stations and payment of an application and inspection fee up to \$100. The bill directs the Department of Labor to annually inspect EV charging stations. The title was stricken in February 2019.	<a href="#">S.B. 802 (I)</a>
	Public Utility Regulation	In October 2018, the Oklahoma Corporation Commission issued a notice of proposed rulemaking related to several topics. As part of the rulemaking, the Public Utility Division proposed adding EV charging equipment as an exclusion from the sales for resale of electricity. Under the proposed rule, these sales would not be subject to rate regulation by the Commission. A technical conference was held in November 2018. A later version of the proposed rules also	<a href="#">Docket No. RM-201800010</a>



		includes a provision that utility service to EV charging stations will be provided subject to the utility's terms and conditions and specifies that the sales of electricity from EV charging stations are only exempt from Commission regulation for stations not owned by regulated utilities. The Commission adopted the proposed rules in late January 2019, but the final version omits the provisions related to EV charging.	
OR	Equipment Standards	H.B. 2602 modifies the definitions of light-duty zero-emission vehicle and plug-in hybrid electric vehicle to require that they have at least three wheels.	<a href="#">H.B. 2602 (I)</a>
PA	Public Utility Regulation	Upon a motion by the Public Utility Commission (PUC) chair, the Commission issued a secretarial letter in June 2017, requesting comments regarding distribution utility tariff provisions about the resale of electricity to third parties. The Commission requested comments on several specific issues, including the restrictions these provisions place on third-party EV charging, the advantages and disadvantages of provisions that would allow unrestricted resale of electricity for third-party EV charging, and other tariff provision designs and regulatory options could provide clear rules for third-party EV charging. In March 2018, the PUC voted to advance a policy statement clarifying that third-party EV charging does not constitute a resale of electricity. The proposed policy statement was published in May 2018 and also requires that electric distribution companies expressly address EV charging in their tariffs. Comments on the policy statement were filed during July 2018, and the Commission adopted the policy statement in November. The final policy statement was published in February 2019.	<a href="#">Docket No. M-2017-2604382</a>  <a href="#">Press Release</a>
	Public Utility Regulation	Several utilities filed tariff revisions in Q1 2019 to implement the Public Utilities Commission's policy statement on EV charging adopted in Docket No. M-2017-2604382. The Commission approved each utility's revised tariff.	<a href="#">Docket No. 2019-3007069 (Met-Ed)</a>  <a href="#">Docket No. 2019-3007070 (Penelec)</a>  <a href="#">Docket No. 2019-3007071 (Penn Power)</a>  <a href="#">Docket No. 2019-3007072 (West Penn Power)</a>

			<a href="#">Docket No. R-2019-3007873 (Duquesne)</a>  <a href="#">Docket No. R-2019-3008085 (PECO)</a>
SC	Electric Bicycles	H.B. 3174 defines "electric-assist bicycles" and "bicycles with helper motors" as low-speed electronically assisted bicycles up to 750 watts. The bill subjects these electric bicycles to the same statutory provisions applicable to bicyclists. The House passed the bill in April 2019.	<a href="#">H.B. 3174 (P1)</a>
	Sales by Manufacturers	S.B. 379 allows EV manufacturers (that only manufacture all-electric vehicles) to sell its vehicles directly or indirectly to consumers.	<a href="#">S.B. 379 (I)</a>
SD	Electric Bicycles	S.B. 187 defines electric bicycles and establishes three classes of electric bicycles, based on the maximum assisted speed. The bill includes labeling requirements for electric bicycles, a requirement that users must be at least 16 years old, and provisions regarding where electric bicycles may be operated. The Governor signed the bill into law in March 2019.	<a href="#">S.B. 187 (E)</a>
TX	Electric Bicycles	H.B. 2188 amends rules related to electric bicycles, including adding age restrictions for the operation of electric bicycles and labeling requirements. The bill establishes three classes of electric bicycles, based on the top assisted speed.	<a href="#">H.B. 2188 (I)</a>
	Fees	H.B. 1971 adopts an additional registration fee of \$200 for EVs and \$100 for hybrid vehicles.	<a href="#">H.B. 1971 (I)</a>
	Fees	H.B. 2513 establishes a \$200 additional registration fee for EVs (or \$300 if the vehicle weighs more than 10,000 pounds).	<a href="#">H.B. 2513 (I)</a>
	Fees	H.B. 2915 adopts a \$125 registration fee for hybrid vehicles (the fee would be either \$125 or the current fee, whichever is higher).	<a href="#">H.B. 2915 (I)</a>
	Fees	H.B. 4218 requires alternative fuel vehicle owners to pay an additional registration fee. This fee would be set at 75% to 85% percent of the average amount that the vehicle owner would pay were the vehicle to be powered by gasoline or diesel.	<a href="#">H.B. 4218 (I)</a> <a href="#">S.B. 1076 (I)</a>
	Fees	S.B. 1216 creates an additional registration fee for alternatively fueled vehicles based on mileage driven; the number of miles driven by the vehicle would be multiplied by the per-mile gas tax rate applied to gasoline or diesel vehicles of the same class.	<a href="#">S.B. 1216 (I)</a>

	Fees	S.B. 1471 imposes an additional registration fee on electric and hybrid vehicles to be calculated based on the amount of gasoline tax that vehicle would have incurred if it operated on gasoline or diesel fuel.	<a href="#">S.B. 1471 (I)</a>
VA	Public Utility Regulation	H.B. 1934, as amended in the Senate, authorizes the Department of General Services, Department of Motor Vehicles, or Department of Transportation to operate a retail fee-based EV charging station on its property. The bill also exempts these entities from being considered public utilities due to the provision of EV charging service or the ownership or operation of an EV charging station. Currently, these provisions are applicable only to the Department of Conservation and Recreation when operating a retail fee-based EV charging station on property of any existing state park or similar recreational facility the Department controls. The House and Senate passed the bill in February 2019. The Governor signed the bill in March 2019.	<a href="#">H.B. 1934 (E)</a>
VT	EV Parking Enforcement	H.B. 255 clarifies that it is illegal to park any vehicle other than an EV or PHEV where there are official signs restricting parking at EV charging stations. The bill also makes it illegal for an EV or PHEV to park where there are official signs restricting parking at EV charging stations while not actively charging the vehicle.	<a href="#">H.B. 255 (I)</a>
	Fees	H.B. 471 provides legislative support for a per-kWh EV charging fee to be phased in over time that supports transportation infrastructure funding.	<a href="#">H.B. 471 (I)</a>
	Public Utility Regulation	In July 2018, the Commission opened a new docket to investigate the promotion of the ownership and use of EVs in Vermont, pursuant to H.B. 917 (enacted in June 2018). The Commission noted that reaching clarity on the jurisdictional issues related to EV charging stations is a priority. On January 23, 2019, the PUC sent a letter to the Chairs of the Senate Committees on Finance, Natural Resources and Energy, and Transportation and the House Committees on Energy and Technology and Transportation. The letter includes legislative recommendations that would clarify that the PUC and Department of Public Service do not have authority to regulate EV charging stations.	<a href="#">Docket No. 18-1762-PET</a>  <a href="#">Docket No. 18-2660-INV</a>
	Public Utility Regulation	H.B. 191 provides that the Public Utility Commission and Department of Public Service do not have jurisdiction over companies not otherwise regulated by the Commission that site, construct, own, operate, or control EV charging stations. The bill also provides that regulated utilities may provide EV charging stations to the public on an unregulated basis through unregulated affiliate companies. Furthermore, the bill authorizes EV charging stations to charge by the kWh.	<a href="#">H.B. 191 (I)</a>

	Public Utility Regulation	H.B. 529 allows any agency or department to establish, set, and adjust fees for use of EV charging stations owned or controlled by the state. Furthermore, the bill clarifies that the Public Utility Commission and Department of Public Service do not have jurisdiction over a company not otherwise regulated by the Commission that is siting, constructing, owning, operating, or controlling an EV charging station. The bill allows regulated utilities to provide charging services on an unregulated basis through a separate unregulated affiliate or to offer charging services to the public on a regulated basis. The House passed an amended version of the bill in March 2019. The amendments do not make substantive changes to the EV provisions of the original bill.	<a href="#">H.B. 529 (P1)</a>
WA	Fees	H.B. 2042 increases the additional registration fee for EVs from \$50 to \$100. The House and Senate passed the bill in April 2019.	<a href="#">H.B. 2042 (P2)</a>
	Fees	S.B. 5128 adopts an additional annual registration fee of \$30 for electric motorcycles.	<a href="#">S.B. 5128 (I)</a>
	Fees	S.B. 5971 authorizes an additional \$200 fee for vehicles are capable of traveling at least 30 miles using battery power and may be reenergized with external electricity.	<a href="#">S.B. 5971 (I)</a>
	Public Utility Regulation, Utility Ownership	H.B. 1664 provides clear authority for utilities to engage in and promote the build out of EV infrastructure.	<a href="#">H.B. 1664 (I)</a>
WI	Electric Bicycles	A.B. 132 and S.B. 129 establish definitions for electric bicycles, differentiating these from motor bicycles, which require an operator's license. The bill creates three classes of electric bicycles, based on the maximum assisted speed. The bill provides the Department of Transportation or local authorities with the ability to prohibit electric bicycles on designated bikeways.	<a href="#">A.B. 132 (I)</a> <a href="#">S.B. 129 (I)</a>
WY	Electric Bicycles	S.B. 81 defines electric bicycles and creates three classifications based on their maximum assisted speed. The bill does not classify electric bicycles as motor vehicles, but requires that beginning in 2020, manufacturers and distributors label the bicycles with their top assisted speed and motor wattage. The bill also includes certain restrictions on age and the types of paths than electric bicycles may operate on. The Governor signed the bill into law in February 2019.	<a href="#">S.B. 81 (E)</a>
	Fees	H.B. 166 increases the annual fee for plug-in EVs from \$50 to \$200 and establishes a fee of \$100 for hybrid vehicles. The Governor signed the bill in February 2019.	<a href="#">H.B. 166 (E)</a>

**Legislative Status Key:** I = Introduced, P1 = Passed One Chamber, P2 = Passed Both Chambers, E = Enacted, D = Dead. Bill statuses are up to date as of early May 2019.

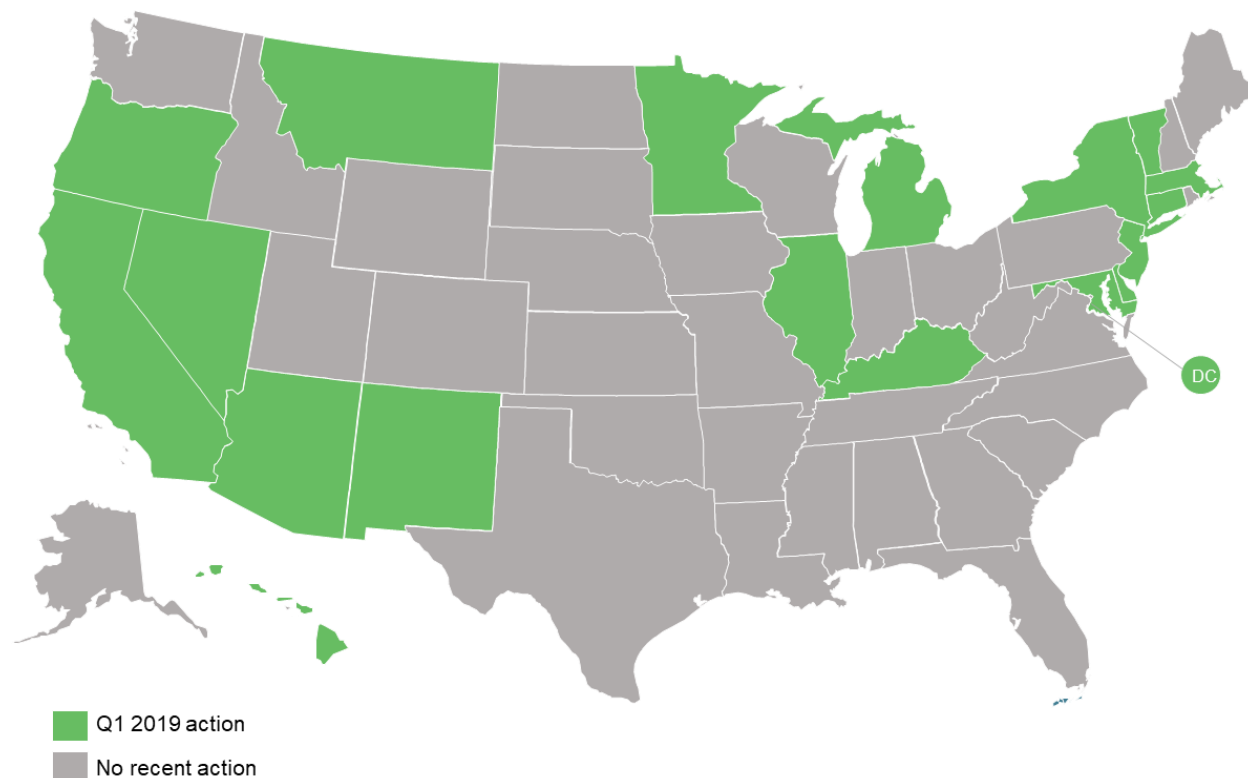
## ELECTRIC VEHICLE RATE DESIGN

### Key Takeaways:

- In Q1 2019, 18 states plus DC took 33 actions related to rate design for electric vehicle charging.
- Regulators approved new rate options for utilities in Arizona, Connecticut, Maryland, Michigan, Nevada, and New York.
- Xcel Energy in Minnesota proposed a new subscription rate option for residential electric vehicle charging, while Green Mountain Power withdrew its subscription rate request.

In Q1 2019, 18 states and DC considered rate design for electric vehicle charging, with one utility – Xcel Energy in Minnesota – proposing a new rate tariff for electric vehicle charging during the quarter. The majority of the rates under consideration are residential tariffs designed to encourage off-peak charging or tariffs for commercial customers that provide a temporary demand charge reduction or holiday in order to encourage the development of fast charging infrastructure.

**Figure 12.** Action on Electric Vehicle Rate Design (Q1 2019)



Regulators issued decisions on several utilities' rate design proposals during Q1 2019. In Maryland, the Public Service Commission approved tariffs providing temporary demand charge credits for non-residential customers of Baltimore Gas & Electric (BG&E), Delmarva Power &

Light, and Pepco. The Commission is also requiring BG&E, Delmarva, Pepco, and Potomac Edison to offer electric vehicle only time-of-use rates. Notably, the Commission is also allowing smart charging stations to serve as sub-meters for customers on these rates, avoiding the need for a second smart meter to be installed. Maryland regulators also approved the utilities' whole-house time-of-use rates

Michigan regulators approved a new electric vehicle only residential tariff option for Consumers Energy, and Salt River Project's Board approved a new rate option for distributed generation customers with electric vehicles. Connecticut and Nevada regulators approved tariffs for Eversource and NV Energy, respectively, that provide demand charge alternatives or reductions to encourage fast charging station development.

Subscription tariffs are emerging as a new rate option for electric vehicle charging. Pacific Gas & Electric proposed a subscription option for commercial charging in Q4 2018, and Xcel Energy in Minnesota requested approval for a residential charging subscription option in February 2019. Under Xcel's proposed tariff, customers would pay a fixed monthly charge for unlimited off-peak charging. Green Mountain Power proposed a similar residential charging subscription tariff in December 2018, but withdrew the filing in January.

**Table 5. Updates on Electric Vehicle Rate Design (Q1 2019)**

State	Utility	Description	Source
AZ	All IOUs	In August 2018, the Arizona Corporation Commission (ACC) opened a rulemaking docket to evaluate proposed modifications to many of the state's energy rules. Among the rules to be addressed are those pertaining to EVs. In December 2018, the ACC Staff filed the draft policy statement, which directs utilities to propose optional rate tariffs and encourages utilities to adopt pilot programs to obtain data on infrastructure deployment, charging patterns, and the need for rate designs and incentives. The ACC adopted the Staff's EV policy statement in January 2019. A stakeholder meeting was March 2019 to discuss implementation of the EV policy statement. Stakeholders filed comments following the meeting, addressing a variety of issues. EVgo, Chargepoint, and Tesla emphasized the importance of rate design. The ACC Staff filed a draft implementation plan for the EV policy statement in late March 2019, which provides guidelines to regulated utilities on how to best implement the policy. The implementation plan encourages utilities to propose pilot programs by June 1, 2019, focusing on infrastructure deployment, charging patterns, fleet charging, make-ready infrastructure, rate design, incentives, and customer education. The implementation plan also encourages utilities to design tariffs to encourage off-peak charging and tariffs that alleviate issues for private companies deploying DC fast charging stations.	<a href="#">Docket No. RU-00000A-18-0284</a>  <a href="#">Decision No. 77044 (Electric Vehicle Policy Statement)</a>  <a href="#">Draft Implementation Plan</a>
	Salt River Project	In December 2018, Salt River Project (SRP) proposed multiple new rate options, including a rate designed for customers with distributed generation and an EV. The proposed rate includes time-of-use rate and no demand charge. Energy exported to the grid by the distributed generator would be credited at an export rate equal to the recent cost of new utility-scale solar generation, plus an increase for line and system losses. The rate includes on-peak hours (2 to 8 pm from May to October and 5 to 9 am and 5 to 9 pm from November to April), super off-peak hours (11 pm to 5 am year-round), and off-peak hours (all other hours). SRP currently has a residential EV time-of-use rate for customers without distributed generation. The Board approved the new price plans in March 2019.	<a href="#">SRP Website</a>  <a href="#">Rate Proposal</a>
	Tucson Electric Power	In February 2019, Tucson Electric Power (TEP) filed a notice of intent to file a general rate case on or about April 1, 2019. TEP noted that it intends to propose new rates for EV charging, consistent with the policy statement adopted in Decision No. 77044 (Docket No. RU-00000A-18-0284). TEP filed its rate	<a href="#">Docket No. E-01933A-19-0028</a>



		<p>case application on April 1, 2019. The proposed tariffs include two new EV charging tariffs - a Residential Super Off-Peak TOU EV tariff and a Residential Demand Super Off-Peak TOU EV tariff. Both tariffs include time-varying power supply charges for on-peak, off-peak, and super off-peak periods. The demand rate also includes a demand charge of \$10.40 for demand of 0-7 kW and a demand charge of \$14.95 for demand over 7 kW. Demand will be measured as the maximum 60-minute demand during peak hours of the billing period. Energy charges (which encompass local delivery, generation capacity, fixed must-run, transmission and ancillary services) are not time-varying. On the non-demand EV rate, energy charges have an inclining block structure and range from 8.4 to 10 cents per kWh, while the demand rate has a flat energy charge of approximately 4 cents per kWh. Notably, TEP's testimony does not address the new EV tariffs included within the filing.</p>	
CA	All IOUs	<p>In December 2018, the California Public Utilities Commission opened a rulemaking proceeding to continue the development of rates and infrastructure for vehicle electrification. A prehearing conference was held on March 1, 2019.</p>	<p><a href="#">Docket No. R-18-12-006</a></p>
	Pacific Gas & Electric	<p>In November 2018, Pacific Gas &amp; Electric (PG&amp;E) filed an application for approval of new commercial EV rates. PG&amp;E proposed a new small commercial EV rate for EV charging site with a maximum load up to 100 kW, which includes a subscription rate and TOU energy rates. PG&amp;E also proposed a new large commercial EV charging rate with a subscription rate and TOU energy rates. The proposed rates do not include demand charges. A prehearing conference was held on January 22, 2019. A scoping ruling filed in February 2019 established the issues to be addressed in the proceeding and the schedule. A final decision is targeted for September 2019.</p>	<p><a href="#">Docket No. A-18-11-003</a></p>
CT	Connecticut Light and Power Company d/b/a Eversource	<p>In November 2017, Eversource filed a general rate case, which includes a continuation and expansion of its EV Rate Rider Pilot Program. Eversource proposed making the rider a permanent rate option and opening participation to customers owning and operating separately metered fast charging stations (the rate is currently only available to fast charging stations owned or operated by the State of Connecticut). Eversource also proposed that the rate be based on the per-kWh equivalent of the general service demand charge. The Public Utilities Regulatory Authority (PURA) issued a final order in April 2018, approving the expansion of the tariff to both publicly and privately owned charging stations</p>	<p><a href="#">Docket No. 17-10-46</a></p>



		<p>that are publicly accessible. The PURA also directed Eversource to refile the tariff with a provision requiring stations to allow any EV to charge under the same terms, conditions, and pricing structure in order to be eligible for the tariff. The Department of Energy and Environmental Protection (DEEP) proposed expanding the rider to all separately-metered charging stations, including those that are not publicly accessible, such as those for private fleets. The PURA did not approve the DEEP's recommendation because it was first raised in the DEEP's brief. The PURA did note that it would review requests to expand eligibility beyond publicly accessible charging stations if a party files a motion to reopen Docket No. 13-12-11 (Request for CL&amp;P for Approval of EV Rate Rider Pilot). In early October 2018, the PURA reopened the proceeding to consider modification of its April 2018 decision as it relates to the EV rate rider. The PURA is considering eliminating the requirement for public charging stations to charge under the same pricing structure to be eligible for the EV rate rider.</p> <p>A draft decision was published in early February 2019, which would approve the Expanded EV Rate Rider proposed by Eversource for three years without the provisions requiring EVs to charge under the same terms, conditions, and pricing structure. The DEEP filed an exception to the decision, maintaining that the rider should also be open to privately owned charging stations. Eversource filed exceptions to the decision as well, requesting additional time to develop a data collection protocol, additional time if needed to post information about the expanded EV rider, additional time to determine business policy changes needed, and clarification that the data Eversource is to collect will only be from customers enrolling in the EV rider. The PURA issued a final decision in early March 2019 approves the expanded EV Rate Rider proposed by Eversource for three years without the provisions requiring EVs to charge under the same terms, conditions and pricing structure.</p>	
DC	Pepco	<p>In April 2017, Pepco filed a proposal to implement a new plug-in vehicle program. Part of this program would include a new rate option for residential customers with EVs. The proposed program is limited to 100 customers with existing EVs and charging infrastructure, and will require installation of a second meter. Participants may also elect an adder of 3.64 cents per kWh to receive electricity from 100% renewable sources. Pepco also proposed a new whole-house time-varying rate for residential EV owners, which would not require the installation of a</p>	<p><a href="#">Formal Case No. 1130</a></p> <p><a href="#">Formal Case No. 1143</a></p> <p><a href="#">Formal Case No. 1155</a></p> <p><a href="#">Transportation Electrification Program</a></p>

		<p>second meter. This option would not be available to net metering customers.</p> <p>The matters under consideration in this case were moved into Formal Case No. 1130 in October 2017. Pepco hosted EV workshops in April, May, and June 2018. Pepco used the workshops to present a revised EV program proposal and to receive input from stakeholders on several issues including: operational and policy considerations, outreach and education, increasing EV penetration for broader and more diverse populations, and addressing barriers to EV penetration in all quadrants of DC. In September 2018, Pepco filed an application for approval of its Transportation Electrification Program. The program consists of 13 offerings, including a residential whole-house TOU rate for plug-in vehicle owners.</p> <p>An April 2019 order granted in part and denied in part Pepco's Transportation Electrification Program. The residential whole house TOU rate for EVs was one of the elements approved by the order. The order also opened a new docket (Formal Case No. 1155) to continue working on Pepco's Transportation Electrification Program.</p>	<p><a href="#">Order</a></p>
DE	Delmarva Power and Light	<p>In October 2017, Delmarva Power &amp; Light filed a proposal to implement a new plug-in vehicle program. Part of this program would include a new whole-house time-varying rate option for residential EV owners. This rate option would not be available to net metering customers. Delmarva also proposed a new adder for customers on a plug-in vehicle rate, which would allow customers to opt to receive electricity from 100% renewable sources. The proposed adder is 0.72 cents per kWh. Multiple parties to the proceeding have questioned the Commission's regulatory oversight of EV charging stations.</p> <p>In June 2018, Delmarva informed the parties that its parent company, Exelon, had engaged a consultant earlier in the year to study issues related to electric vehicles in its various jurisdictions, and requested to have the study (The Gabel Report) entered into the record, and to have the evidentiary hearings postponed to give all parties the opportunity to review the study. In July 2018, the Division of the Public Advocate and the Commission Staff filed a joint motion to stay Delmarva's application until the earlier of June 30, 2019 or the date that a statute deregulating EV charging stations becomes effective. After some back and forth, the Commission voted in August 2018 to deny the motion to stay, and a September order asked parties to agree upon a new procedural schedule to provide for discovery upon the</p>	<p><a href="#">Docket No. 17-1094</a></p> <p><a href="#">Gabel Report</a></p> <p><a href="#">Settlement Agreement</a></p>

		Gabel Report. Delmarva, the Public Advocate, and the Commission Staff filed a settlement agreement in January 2019, agreeing to all aspects of the program. Delmarva, the Public Advocate and the Commission Staff filed a settlement agreement in January 2019, agreeing to all aspects of the program. An April Hearing Examiner's Report recommends approving the settlement agreement.	
HI	Hawaiian Electric Companies	A June 2017 Public Utilities Commission order required the HECO companies to develop an Electrification of Transportation Strategic Roadmap. HECO submitted its roadmap in March 2018, which describes a number of activities that could accelerate the adoption of EVs, including: (1) lowering costs and educating customers, (2) accelerating the buildout of EV charging infrastructure, (3) supporting the electrification of buses and other heavy equipment, (4) incentivizing EV charging, and (5) coordinate with ongoing grid modernization planning efforts. The Commission opened a new proceeding (2018-0135) in June 2018 to serve as a repository for the Roadmap and accepted comments on the Roadmap. In November 2018, HECO filed an addendum to its Strategic Roadmap. The original roadmap provided economic analysis of electrification of transportation in its service territories using light-duty vehicles on Oahu as an initial case study. The addendum provides economic analysis on additional islands. No action took place during Q1 2019.	<a href="#">Docket No. 2018-0135</a>  <a href="#">Docket No. 2016-0168</a>  <a href="#">Electrification of Transportation Strategic Roadmap</a>  <a href="#">Roadmap Addendum</a>
	Maui Electric Company	In December 2018, Maui Electric Company (MECO) filed an application for approval of a new EV fast charging tariff. The utility is also proposing to assume ownership and operation of the Maui Economic Development Board's (MEDB) public DC fast charging network. The network is currently operated and maintained under an agreement between MEDB and a third party, but this agreement will not be renewed after it expires at the end of March 2019, and MEDB offered to transfer the assets at no cost to MECO. The utility is requesting approval to defer the O&M expenses associated with this. The EV fast charging tariff will apply to use of these fast charging stations that are currently a part of MEDB's network. The tariff includes a 62 cent per kWh on-peak charge, a 49 cent per kWh mid-day charge, and a 60 cent per kWh off-peak charge. The Commission adopted a procedural schedule in January, 2019 which conforms to the utility's requested decision date. MECO filed responses to a number of information requests on February 20, 2019. MECO filed some of the materials in its response under confidential seal. In a subsequent order, the Commission argued against the confidentiality of those materials and required	<a href="#">Docket No. 2018-0422</a>  <a href="#">Decision and Order No. 36229</a>

		<p>MECO to refile them. The order also stated that these delays will push back the date of its decision past the February 28, 2019 date requested by MECO.</p> <p>A decision and order filed on March 22, 2019 denied MECO's application as filed. MECO's request to defer certain operations and maintenance will only be granted if the utility adopts the shared savings mechanism detailed in the order. Through the shared savings mechanism, MECO and its customers would share the costs of reasonably incurred expenses as well as any realized revenues. MECO can recover all the expenses related to its ownership and operation of the chargers from its customers during year one. But beginning with year two, the customer contribution will gradually decrease through year five, when MECO will assume all the costs. The order also denied MECO's proposed EV-MAUI tariff, and instructed MECO to file a revised tariff that better aligns with MECO's costs during the daytime period to better incent daytime charging. The order instructed MECO to state whether or not it plans to move forward with the project in light of the requirements established by the order. On March 29, 2019, MECO stated that it would go forward and will work with stakeholders to implement the Commission's required changes.</p>	
IL	All IOUs	<p>S.B. 2059 and H.B. 2855 require the Illinois Commerce Commission to initiate a process to develop a forward-looking plan for strategically increasing transportation electrification in the state. The plan developed by the Commission must incentivize transportation electrification through beneficial electrification programs, and may include specific directives for public utilities that enable transportation electrification or beneficial electrification, and should specifically address environmental justice interests and provide opportunities for residents and businesses in environmental justice communities to directly benefit from transportation electrification. Programs should provide for incentives that encourage customers to use electricity at times of low overall system usage or at times when generation from renewable energy sources is high, and can include managed charging programs and vehicle-to-grid technologies.</p>	<p><a href="#">H.B. 2855 (I)</a></p> <p><a href="#">S.B. 2059 (I)</a></p>
KY	Kentucky Utilities	<p>In September 2018, as part of a general rate case, Kentucky Utilities proposed a change to its Electric Vehicle Charging Service rate. The proposed change would make the rate for the first two hours of charging (\$0.75 per hour) lower than the rate for subsequent hours (\$1.00 per hour). The proposal would also lower the EV charging rate so as to make the cost</p>	<p><a href="#">Docket No. 2018-00294</a></p>

		approximately equal to an equivalent amount of gasoline (the new rate would be equivalent to \$2.13 per gallon of gasoline, while the current rate is equivalent to \$6.91-\$6.96 per gallon of gasoline)	
	Louisville Gas & Electric	In September 2018, as part of a general rate case, Louisville Gas & Electric proposed a change to its Electric Vehicle Charging Service rate. The proposed change would make the rate for the first two hours of charging (\$0.75 per hour) lower than the rate for subsequent hours (\$1.00 per hour). The proposal would also lower the EV charging rate so as to make the cost approximately equal to an equivalent amount of gasoline (the new rate would be equivalent to \$2.13 per gallon of gasoline, while the current rate is equivalent to \$6.91-\$6.96 per gallon of gasoline)	<a href="#">Docket No. 2018-00295</a>
MA	All IOUs	H. 2873 directs distribution companies to file proposals for opt-in TOU rates for EV charging. These rates are not to include demand charges.	<a href="#">H. 2873 (I)</a>
	All IOUs	H. 3629 directs distribution companies to file commercial rate tariffs with an alternative to a traditional demand charge to facilitate EV fast charging.	<a href="#">H. 3629 (I)</a>
	National Grid	<p>In November 2018, National Grid filed a general rate case, which includes a proposed Phase II Electric Vehicle Market Development Program. The program includes three offerings - Level 2 Residential, Level 2 Non-Residential, and DCFC sites. The residential offering includes an off-peak charging rebate of 5 cents per kWh during summer months and 3 cents per kWh during all other months. National Grid is also proposing a limited-time DCFC Demand Charge Discount, which will be a per-kW credit set at the same rate as the applicable distribution demand charge. The full discount will be available for three years, then decline to 67% of the demand charge in year 4, and 33% of the charge in year 5. The maximum annual budget for the discount will be \$1.2 million (estimated \$3.4 million for the life of the program), and the estimated budget for the other DCFC offerings is \$14.6 million.</p> <p>Parties filed testimony in March 2019. The Attorney General recommends extending the off-peak charging rebate to non-residential customers and modifying the DCFC demand discount to encourage more off-peak charging. Tesla recommends several modifications to the program, including a stronger price signal for off-peak charging, a cost-based EV TOU rate, and applying the DCFC demand discount to all separately metered DCFC accounts regardless of when the station began service. Chargepoint generally</p>	<a href="#">Docket No. 18-150</a>

		<p>endorses the most of the program components and recommends some modifications to the non-residential DCFC programs. Chargepoint recommends rejecting the pricing proposal, though, and clarifying that site hosts can determine the price for EV charging services, regardless of whether stations are customer or company owned.</p>	
MD	All IOUs	<p>In January 2018, the EV working group filed a proposal for the Public Service Commission (PSC) to open a new proceeding to consider a statewide electric vehicle portfolio. The proposed portfolio would include residential, non-residential, public, innovation, and technology sub-portfolios for each service territory. The residential sub-portfolio includes EV whole-house TOU rates for all utilities except Potomac Edison, and Delmarva and Pepco proposed smart level 2 charging station rebates with EV-only rate design components. Delmarva and Pepco also proposed non-rate incentives for off-peak charging. Baltimore Gas &amp; Electric proposed a managed charging demonstration program that would be part of its public sub-portfolio.</p> <p>The Office of the People's Counsel (OPC) filed a letter later in January, requesting that the PSC go through the full evidentiary process to investigate this proposal. In February 2018, the PSC opened a new proceeding (Case No. 9478). The PSC held an initial legislative-style hearing in May 2018. The hearing addressed the current state of EVs in the state, the potential growth of EVs in the state, the potential benefits and costs of increasing Maryland's ability to integrate more EVs, how the working group's proposal fits into the current and potential growth of EVs in the state, and the proper role of utility investment in EV infrastructure. The PSC held another legislative-style hearing in September 2018. A January 2019 order approved in part and denied in part the proposed portfolio. Notably, the rate design elements of the proposal were approved. The order also approved the utilities' residential programs on the condition that they each develop and file tariffs on residential EV-only TOU rates to encourage off-peak EV charging. The order further requires the utilities to develop a new rate class for EV charging stations and submit tariff proposals that describe the rights and estimated charges for EV customers, including public station charging and non-residential charging. The order also approves demand charge credits for non-residential customers.</p>	<p><a href="#">Case No. 9478</a></p> <p><a href="#">Public Conference No. 44</a></p>
MI	Consumers Energy	<p>In May 2018, as part of a general rate case, Consumers Energy proposed a new "Residential Nighttime Savers Rate" which includes a \$7.50</p>	<p><a href="#">Docket No. U-20134</a></p>



		<p>monthly credit for customers with a separately metered electric vehicle. This would have the effect of compensating for the proposed \$7.50 (currently \$7.00) system access charge currently charged to customers with EVs for those EV customers who chose to go on the Nighttime Savers Rate. A hearing took place in October 2018. A settlement agreement was filed in December 2018, which would approve the proposed programs, but would not resolve the question of whether Consumers Energy may recover costs for the EV program through deferred accounting. In January 2019, the Commission approved the settlement agreement and issued an order allowing Consumers Energy to recover costs for the EV program as a regulatory asset.</p>	<p><a href="#">Order Approving Settlement Agreement</a></p> <p><a href="#">Order Approving Regulatory Asset</a></p>
	DTE Electric	<p>In its most recent rate case, filed in July 2018, DTE requested cost recovery for a new EV program, Charging Forward. The three primary components of the Charging Forward program include customer education and outreach, residential smart charger support, and charging infrastructure enablement. During the course of the hearing, the Commission Staff called for the elimination of DTE Electric's EV flat monthly rate. DTE Electric agreed and has proposed to stop offering the EV flat monthly rate and to work toward the transition of all current EV flat monthly rate customers to a new rate by December 31, 2019. A proposal for decision was filed in early March 2019. The proposal for decision addresses the issue of demand charges for DCFCs, recommending that the Commission adopt the Staff's proposal for a demand charge holiday for EV site hosts, to be offered by DTE Electric for up to five years.</p>	<p><a href="#">Docket No. U-20162</a></p> <p><a href="#">Proposal for Decision</a></p>
MN	Northern States Power Company d/b/a Xcel Energy	<p>In October 2018, Xcel Energy filed a petition for approval of two EV pilot programs. The filing also discusses five forthcoming EV initiatives. Both pilots involve Xcel Energy installing and maintaining EV charging infrastructure, and feature customers paying time-of-use rates. The planned initiatives that will be proposed in the coming months include a residential EV subscription service pilot, a residential smart charging pilot, a workplace smart charging pilot, and a vehicle-to-grid demonstration with school buses. The residential EV subscription service pilot features a flat monthly subscription fee for dedicated EV charging service during off-peak hours, with additional charges for on-peak charging. The workplace smart charging pilot will also feature a new rate design that is yet to be determined. Parties filed comments in January and February 2019.</p>	<p><a href="#">Docket No. 18-643</a></p>
	Northern States Power	<p>In February 2019, Xcel filed a petition for approval of a residential EV subscription service pilot program,</p>	<p><a href="#">Docket No. 19-186</a></p>

	Company d/b/a Xcel Energy	originally referenced in Docket No. 18-643. Customers participating in the pilot will pay a single monthly subscription fee for unlimited off-peak charging and up to 34 kWh of on-peak charging. If customers exceed the 34 kWh allotment they will be billed at the on-peak rate for all excess usage. Customers participating in the pilot will also choose their preferred charging equipment from qualified vendors. The Company will purchase the charging equipment and have it installed at the customers' homes by qualified contractors. A customer can choose to pay for the charging equipment upfront or through its inclusion in the monthly customer charge for bundled service. The monthly subscription cost is \$38.57 per month for customers who pay upfront for the equipment, or \$48.99 for customers who choose to have the charger costs bundled with their subscriptions. Customer can also choose to pay an additional \$3 under either plan to have their electricity come from Xcel's Windsource program. The Company will pilot this offer for up to 100 customers for two-year terms over a three-year period. The Commission is accepting comments on the proposal through May 6, 2019.	
MT	All IOUs	H.B. 456 requires public utilities to apply for rates to provide electric service to EV charging stations before providing this service. The rates are to prevent any cross-subsidization between customers and customer classes.	<a href="#">H.B. 456 (P2)</a>
NJ	Atlantic City Electric	In February 2018, Atlantic City Electric filed an application for five-year, \$14.9 million Plug-In Vehicle Charging Program. The program includes a new residential whole-house TOU rate for plug-in vehicle owners. The rate would save participants \$0.04 per kWh for off-peak charging. The utility is also proposing a new rate for customers with existing Level 2 chargers. A second meter would be installed, at no charge to the customer, and would also save participants \$0.04 per kWh for off-peak charging. The utility plans to collect charging data from participants in the second option to better understand infrastructure needs.	<a href="#">Atlantic City Electric Filing (Docket No. E018020190)</a>
NM	All IOUs	H.B. 521 and S.B. 336 direct public utilities to file applications to expand transportation electrification by January 1, 2021. These applications may include investments or incentives for charging infrastructure deployment, rate designs, and customer education and outreach programs. Utilities undertaking transportation electrification activities approved by the Commission will have the option of recovering costs through a rider, base rates, or both. The Governor signed H.B. 521 into law in April 2019.	<a href="#">H.B. 521 (E)</a> <a href="#">S.B. 336 (D)</a>



NV	Nevada Power, Sierra Pacific Power	<p>NV Energy filed its annual plan for its incentive programs, including new incentives for the EV Infrastructure Demonstration program in February 2018. NV Energy detailed the incentive rates and structure for the EVID program in a stipulation filed in May 2018, which the Commission accepted in a June order. According to the terms of the stipulation, within 90 days of the order, NV Energy would file a proposed tariff that will address the use of a transitional demand charge applied to customers with DC fast charging equipment. NV Energy intends for the tariff to include a TOU rate with a 10-year transitional demand charge. The service would be separately metered and only for EV fast charging.</p> <p>Nevada Power and Sierra Pacific Power both filed applications for the approval of electric vehicle tariffs with the Commission in September 2018. Nevada Power's optional Large General Service Electric Vehicle Commercial Charging Rider and Sierra Pacific Power's optional Electric Vehicle Commercial Charging Rider provide a discount to the standard General Service schedule time-of-use demand charges during a ten-year transition period. The discount will reduce over the ten-year period. All of the parties in the proceeding filed a stipulation in January 2019, which recommends approval of NV Energy's proposed tariff. The stipulation only changes the term "demand charge discount" to "demand charge reduction" and specifies that the 10-year demand rate reduction transition period will begin on April 1, 2019 and end on April 1, 2029. The Commission issued an order in late January 2019, approving the stipulation. The Commission accepted Nevada Power's revised tariff sheets in April 2019.</p>	<p><a href="#">Docket No. 18-09017 (Nevada Power Tariff)</a></p> <p><a href="#">Docket No. 18-09018 (Sierra Pacific Power Tariff)</a></p> <p><a href="#">Stipulation Order</a></p>
NY	All IOUs	<p>This docket was opened in March 2018 for utilities to file tariffs complying with state law requiring that each utility file a residential electric vehicle charging tariff by April 1, 2018. All utilities have filed their proposed tariffs. In September 2018, Central Hudson, NYSEG, and Rochester Gas &amp; Electric agreed to postpone their tariffs' effective dates until December 1, 2018, in order to allow additional time for review. The tariffs for these utilities had originally been scheduled to go into effect on September 15, 2018, for NYSEG and Rochester Gas &amp; Electric, and on October 1, 2018 for Central Hudson. In November 2018, the Public Service Commission issued an order directing the utilities that had filed new tariffs (Central Hudson, NYSEG, and Rochester Gas &amp; Electric) to cancel their filed tariffs, and directing all of the utilities to file new EV tariffs with TOU rates that do not charge EV customers higher customer or metering charges than</p>	<p><a href="#">Docket No. 18-00860/18-E-0206</a></p> <p><a href="#">PSL Section 66-O</a></p>

	those charged to typical residential customers. The utilities filed their revised tariffs in early January 2019.	
All IOUs	<p>In April 2018, several New York state agencies filed a petition with the Public Service Commission (PSC) requesting that utilities be required to allow Direct Current Fast Charging (DCFC) stations to operate under non-demand charge-based rates, and for the PSC to open a docket examining rate design for EV infrastructure more generally. Later in April 2018, the PSC opened a proceeding on support for EVs and EV equipment, and ordered that a technical conference be held to solicit stakeholder support. The technical conference was held in July 2018. Following the technical conference, a working group meeting was held in September 2018. At the working group meeting, Consolidated Edison and PSEG Long Island gave presentations about their proposed EV charging incentives, and the New York Power Authority gave a presentation emphasizing the importance of offsetting demand charges for EV chargers during the early stages of EV adoption. In November 2018, the utilities and several state offices released a proposal for incentive programs to encourage DCFC installation. The proposed programs would offer an annual declining per-plug incentive, require DCFC operators to use a demand-based rate, and would pay a larger incentive for plugs with charging capabilities at or above 75 kW. The incentive amounts would vary by utility, with amounts ranging from \$2,400 to \$17,000 per plug. The Alliance for Transportation Electrification filed a comment in support of the proposal in December 2018. In January 2019, EVgo filed a comment expressing a need for demand charge relief as soon as possible to enable public DCFC deployment in the state. On February 7, 2019, the PSC issued an order adopting the proposed programs, with a maximum funding amount of \$31.6 million. Later in February, Orange &amp; Rockland and Consolidated Edison filed revised tariffs for its incentive program in response to the February 7th order. In late February 2019, Tesla filed a petition for rehearing, arguing that the order erred in excluding Tesla chargers from its definition of publicly accessible charging stations due to their proprietary technology requirements. In late March 2019, the PSC filed a notice of proposed rulemaking to account for the possibility of a rule amendment were the petition for rehearing to be granted.</p>	<a href="#">Docket No. 18-00561/18-E-0138</a>
National Grid	In September 2018, Niagara Mohawk Power Corporation d/b/a National Grid filed a voluntary residential beneficial electrification rate structure, pursuant to the settlement approved in the utility's rate case earlier in 2018. The Beneficial Electrification	<a href="#">Docket No. 17-00887 / 17-E-0238</a>

	<p>rate includes two demand charges, a customer charge, time-varying volumetric energy supply costs, and volumetric capacity supply costs assessed during critical peak pricing events. One of the demand charges (\$7.18 per kW) is based on a customer's non-coincident peak demand, while the second demand charge (\$6.81 per kW) is based on a customer's maximum demand during the delivery system's peak summer hours. National Grid filed a capital investment plan in late January 2019, which indicates that \$45.3 million will be spent from 2020-2024 on the spending category including the new EV program, with the spending in this category primarily for that program.</p>	
<p>Orange and Rockland Utilities</p>	<p>As part of Orange and Rockland's general rate case, filed in January 2018, the utility proposed changes to its existing EV tariff. The utility proposed allowing customers to switch to the tariff for their entire usage with a one-year price guarantee, so the customer would receive a credit at the end of the year for the difference (if any) between what they paid on the TOU rate and what they would have paid on the standard residential tariff. The utility would recover this price guarantee through its Energy Cost Adjustment. Orange and Rockland also proposed offering customers the option to register their PEV with the utility and establishing a separate account for the charger. The utility also proposed allowing demand-billed customers with publicly accessible quick charging stations to participate in its Economic Development Rider, which would provide a 20% discount on delivery rates. Orange and Rockland has proposed allowing 3 MW of charging load to be eligible for the rider, and the discount would be available for seven years. A joint proposal was filed in early November 2018, which includes the price guarantee and PEV charger account measures. Parties filed reply statements arguing for and against the joint proposal in early December 2018. In March 2019, the Commission issued an order approving the settlement agreement (joint proposal). Orange and Rockland filed a tariff implementing the new rates in late March 2019.</p>	<p><a href="#">Docket No. 18-00253/18-E-0067</a></p>
<p>PSEG Long Island</p>	<p>In June 2018, PSEG Long Island filed an annual update of its 2014 Utility 2.0 Long Range Plan. The update lays out plans for full advanced metering infrastructure deployment in PSEG's service territory to take place from 2019-2022. The plan also includes an 80% (up to \$500) rebate for installation of an EV charger as well as a time-of-use rate available for electric car owners that incentivizes charging at night. Parties including the New York Power Authority, the New York Battery and Energy Storage Technology</p>	<p><a href="#">Case No. 14-01299</a></p>

		Consortium (NY-BEST), and a coalition of environmental groups submitted comments on the plan during Q3 2018; comments were generally supportive. The Department of Public Service filed recommendations in early November regarding the plan, which included support for the rebate and a recommendation that the incentive for charging at night be increased.	
OR	Portland General Electric	In September 2018, Portland General Electric filed an application for approval of a new tariff for company operated EV charging stations. During off-peak times, users pay a flat per session fee of \$5.00 for DCFC or \$3.00 for Level 2. Charges during on-peak times include the flat fee plus \$0.19/kWh. Customers may also pay \$25 for a monthly membership to cover all flat fees during the month. The Commission Staff filed a report in November 2018, recommending approval of the tariff.	<a href="#">Docket No. ADV 831</a>
VT	All IOUs	H.B. 529 directs utilities to develop rates for customers with EVs to encourage EV adoption. The bill also allows any agency or department to establish, set, and adjust fees for use of EV charging stations owned or controlled by the state. The House passed an amended version of the bill in March 2019. The amendments do not make substantive changes to the EV provisions of the original bill.	<a href="#">H.B. 529 (P1)</a>
	Green Mountain Power	In December 2018, Green Mountain Power filed for approval of a new EV off-peak charging fixed rate offering. The new tariff would allow for unlimited off-peak EV charging at home for \$44.95 per month per vehicle. Off peak hours are defined as any hours outside of "peak events," which occur about 5-10 times per month for 2-6 hours at a time. Customers are notified of peak events via a smart phone app or other electronic method 4-24 hours in advance. Participants must have a Level 2 charger installed, and Green Mountain Power will have the ability to remotely adjust the rate of charging or turn it on and off. In late January 2019, Green Mountain Power withdrew its filing for the rate.	<a href="#">Docket No. 18-4266-TF</a>

Legislative Status Key: I = Introduced, P1 = Passed One Chamber, P2 = Passed Both Chambers, E = Enacted, D = Dead. Bill statuses are up to date as of early May 2019.



Nevada, New Hampshire, Oregon, and Washington advanced during the quarter. Governors in Colorado and Pennsylvania signed executive orders addressing electric vehicles during the quarter. The Pennsylvania Executive Order requires all agencies under the Governor's jurisdiction to replace 25% of the state passenger car fleet with battery electric and plug-in electric hybrid cars by 2025.

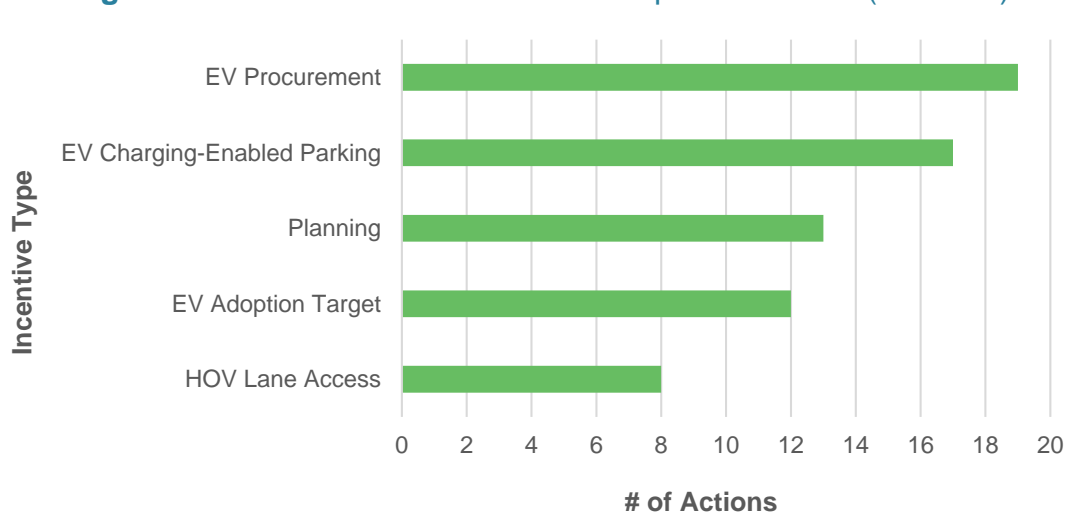
#### Box 4. About the Volkswagen Settlement

In recent years, Volkswagen (VW) agreed to a complex series of legal settlements with the U.S. Environmental Protection Agency, states, and private parties after admitting installation of devices on its diesel engines intended to manipulate tailpipe emissions monitoring equipment, a violation of the Clean Air Act. The 2016 Consent Decree included three components – a recall or buyback for VW vehicle owners, a \$2 billion payout for zero-emission vehicle infrastructure, and a \$2.7 billion payout for environmental mitigation to be directed to states.

For the mitigation fund, eligible actions include projects to reduce NO<sub>x</sub> emissions from heavy-duty diesel sources, such as large trucks, buses, and freight switching railroad locomotives. Eligible mitigation actions may also include charging infrastructure for light-duty zero-emission passenger vehicles (limited to 15% of the fund total).

Each state is to determine how its share of the \$2.7 billion settlement fund is to be distributed, and in 2017 most states sought public input and worked to design their plans. States published draft and final plans throughout 2018.

Figure 14. Most Common Market Development Actions (Q1 2019)



In an emerging trend, a number of bills introduced in California, Hawaii, and Oregon would create or amend electric vehicle adoption targets for the general market, not just state owned and operated vehicles. California is considering legislation requiring the State Air

Resources Board to develop a comprehensive strategy to ensure that all new motor vehicle and light-duty truck sales are zero-emission vehicles by 2040. A pair of bills in Hawaii would prohibit the sale of vehicles with internal combustion engines that have less than 300 miles on the odometer after December 31, 2029. Oregon is considering similar legislation that would prohibit residents of counties with populations of 600,000 or more from registering new non-electric vehicles in the state after December 31, 2034.

Several states considered legislation adopting requirements for new state fleet vehicles to be zero-emission or electric vehicles. Bills in Massachusetts and New Hampshire set target dates for all new state vehicles to be electric or zero-emission vehicles by 2035 and 2039, respectively. Bills under consideration in Connecticut and Rhode Island establish dates by which 50% of new state vehicles are to be zero-emission vehicles. A number of states are also evaluating requirements for electric vehicle charging-enabled parking spaces. A bill establishing electric vehicle parking targets advanced in Hawaii during Q1 2019.



**Table 6. Updates on Electric Vehicle Market Development (Q1 2019)**

State	Sub-Type	Description	Source
AZ	General Market Development	In August 2018, the Arizona Corporation Commission (ACC) opened a rulemaking docket to evaluate proposed modifications to many of the state's energy rules. Among the rules to be addressed are those pertaining to EVs. In December 2018, the ACC Staff filed the draft policy statement, which encourages regulated utilities to invest in infrastructure and develop programs to support EV charging and transportation electrification. Specifically, the policy statement encourages utilities to develop educational and outreach programs directs utilities and stakeholders develop best practices, encourages utilities to consider deploying charging infrastructure in low utilization areas (such as rural and low-income areas, multi-unit dwellings, interstate corridors and highways), directs utilities to work with non-regulated entities to identify locations where joint investment and ownership in charging infrastructure may be appropriate, directs the Commission to work with other state agencies and bodies to promote EVs, and directs the ACC Staff to continue stakeholder engagement efforts related to EVs. The ACC adopted the Staff's EV policy statement in January 2019. The ACC Staff filed a draft implementation plan for the EV policy statement in late March 2019, which provides guidelines to regulated utilities on how to best implement the policy. The implementation plan encourages utilities to propose pilot programs by June 1, 2019, focusing on infrastructure deployment, charging patterns, fleet charging, make-ready infrastructure, rate design, incentives, and customer education.	<a href="#">Docket No. RU-00000A-18-0284</a>  <a href="#">Decision No. 77044 (Electric Vehicle Policy Statement)</a>  <a href="#">Draft Implementation Plan</a>
CA	Building Codes	A.B. 684 requires, by July 1, 2022 or the publication of the next interim California Building Code, that the Department of Housing and Community Development and the California Building Standards Commission research, develop, and propose building standards regarding the installation of future EV charging infrastructure for parking spaces for existing multifamily dwellings and nonresidential development. The bill also requires the standards for the installation of EV charging infrastructure to be reviewed every 18 months and updated as needed.	<a href="#">A.B. 684 (I)</a>
	EV Adoption Target	A.B. 40 requires the State Air Resources Board to develop a comprehensive strategy by January	<a href="#">A.B. 40 (I)</a>



	1, 2021 to ensure that all new motor vehicle and light-duty truck sales are ZEVs by 2040.	
EV Adoption Target	A.B. 1046 increases the goal of the Charge Ahead California Initiative from placing in service at least 1 million ZEVs and near-ZEVs by January 1, 2023, to placing in service of at least 5 million ZEVs by January 1, 2030. The bill further requires the forecast for the Clean Vehicle Rebate Project to include, among other things, the total state rebate investment necessary to facilitate reaching the 2030 goal and recommendations on changes to the project structure and rebate levels.	<a href="#">A.B. 1046 (I)</a>
EV Adoption Target	S.B. 59, introduced in December 2018, creates a set of policies to ensure that the uptake of automated vehicles supports California's greenhouse gas reduction, land use, and other environmental and social goals. The bill would make it the official policy of the state that deployment of automated vehicles should shift rapidly towards ZEVs. The bill also calls for the convening of an interagency working group on automated vehicle policy.	<a href="#">S.B. 59 (I)</a>
EV Adoption Target, Planning	A.B. 1411 establishes a state goal for the deployment of 200,000 zero-emission medium- and heavy-duty vehicles and off-road vehicles and equipment, and the corresponding infrastructure to support them, by 2030. The bill also requires the California Public Utilities Commission, Department of Transportation, the State Air Resources Board and the Governor's Office of Business and Economic Development to develop by January 1, 2021, and update at least every 5 years thereafter, an integrated action plan for sustainable freight that identifies strategies relating to the state goal, with priority given to actions that significantly reduce air pollution in low-income communities and disadvantaged communities.	<a href="#">A.B. 1411 (I)</a>
EV Parking	A.B. 1100 states that a parking space served by EV service equipment or a parking space designated as a future EV charging space must be counted as at least one standard automobile parking space for the purpose of complying with any applicable minimum parking requirements established by a local jurisdiction. Additionally, a van-accessible parking space served by EV service equipment and a van-accessible parking space intended as a future EV charging space must be counted as at least two standard automobile parking spaces for the purpose of	<a href="#">A.B. 1100 (I)</a>

	complying with any applicable minimum parking requirements established by a local jurisdiction.	
EV Parking	A.B. 1646 requires a city or county, as a condition of approval for a construction or reconstruction project with greater than 250,000 square feet of retail floor area, to require the application to include a reasonable estimate of the total number of customers expected to visit the development and the proportion of those customers expected to drive EVs. The developer must then provide an adequate number of EV charging station parking spaces to serve that need.	<a href="#">A.B. 1646 (I)</a>
Fuel Standard; General Market Development	In December 2018, the California Public Utilities Commission opened a broad rulemaking proceeding related to transportation electrification. Among the issues to be addressed in the proceeding are policies, guidelines, and implementation strategies to accelerate transportation electrification; the Low Carbon Fuel Standard; consumer education on ZEVs; improving access to transportation electrification for low-income and disadvantaged communities; encouraging the development and adoption of vehicle-grid policy and technologies; and ridesharing fleet electrification. A prehearing conference was held in March 2019.	<a href="#">Docket No. R-18-12-006</a>
General Market Development	A.B. 1238 states the intent of the Legislature to enact legislation to encourage business owners to build on-site EV charging stations.	<a href="#">A.B. 1238 (I)</a>
General Market Development	S.B. 676 states the intent of the Legislature to enact legislation that accelerates EV grid integration to minimize the cost impacts of EVs on ratepayers.	<a href="#">S.B. 676 (I)</a>
Planning	A.B. 983 requires utilities to work with local agencies or regional planning agencies in their service territories with responsibility for planning EV deployment to determine where to install new electrical charging stations along local transit corridors. The bill further authorizes utilities to file an application with the Public Utilities Commission (PUC) by December 31, 2020, with the support of the local or regional planning agency, for the identified infrastructure investments at transit corridor entry and exit points or other locations, giving priority to disadvantaged communities. The bill also requires the PUC to review and decide whether to approve an application filed by a utility and supported by the local or regional planning	<a href="#">A.B. 983 (I)</a>

		agency. The bill also authorizes a utility to propose a cost allocation methodology that allocates costs in a reasonable manner and would require the PUC to approve the cost allocation methodology if the Commission finds that the application would minimize overall costs and maximize overall benefits and is in the interests of ratepayers.	
CO	HOV Lane Access	H.B. 1199 allows plug-in vehicle owners to pay an express lane access fee to use express lanes, regardless of the number of people in the vehicle. This allows plug-in vehicle owners to use the express lane for free if the express lane is a high-occupancy vehicle lane and for half the usual toll if the express lane is a toll lane. The access fee will be \$35 per registration period.	<a href="#">H.B. 1199 (D)</a>
	Planning	On January 19, 2019, the Governor of Colorado issued Executive Order B-2019-002. This order creates a transportation electrification workgroup, directs the Department of Public Health and the Environment to create a Zero Emission Vehicle Program, directs remaining Volkswagen settlement fund money to transportation electrification, and directs the Department of Transportation to create a Department ZEV and clean transportation plan.	<a href="#">Executive Order No. B-2019-002</a>
CT	EV Parking	S.B. 771 requires new construction and buildings undergoing substantial rehabilitation of parking areas or electrical systems to have EV-ready parking spaces. One to three family homes would be required to have at least one EV-ready parking space, homes with more than three families would be required to have 2 - 10 EV-ready parking spaces with 50% "EV capable" and 20% "EV ready", and multi-unit residential or commercial buildings with at least 11 parking spaces would be required to have 40% of spaces be EV capable and 20% EV ready. EV capable is defined as having an electric panel with space to install appropriate electric service, and EV ready is defined as having the appropriate electric wiring for future EV charging installation.	<a href="#">S.B. 771 (I)</a>
	EV Procurement	H.B. 6247 requires the state to increase the number of electric or hydrogen fuel cell vehicles in the state fleet.	<a href="#">H.B. 6247 (I)</a>
	EV Procurement	H.B. 7205 requires at least 50% of cars and light duty trucks purchased or leased by the state to be ZEVs by January 1, 2030. The bill also requires at least 30% of buses purchased or	<a href="#">H.B. 7205 (I)</a>

		leased by the state to be zero-emission buses by January 1, 2030. The bill also directs the Commissioner of Administrative Services to study the feasibility of creating a competitive bid process for procuring ZEVs and zero-emission buses and determine whether such a procurement mechanism would save costs. A report is to be filed by January 1, 2020.	
	HOV Lane Access	S.B. 409 allows EVs access to HOV lanes regardless of the number of passengers in the vehicle.	<a href="#">S.B. 409 (I)</a>
DC	EV Parking	B23-0193 requires 20% of parking spaces constructed in newly constructed or substantially renovated commercial or multi-unit buildings include EV make-ready infrastructure starting January 1, 2021.	<a href="#">B23-0193 (I)</a>
GA	HOV Lane Access	H.B. 56 allows for the creation of special license plates for alternative fueled vehicles, including EVs, which grant them access to HOV lanes. The bill passed the House in March 2019.	<a href="#">H.B. 56 (P1)</a>
HI	EV Adoption Target	H.B. 1320 and S.B. 1338 prohibit the sale of vehicles with internal combustion engines that have less than 300 miles on the odometer after December 31, 2029.	<a href="#">H.B. 1320 (I)</a> <a href="#">S.B. 1338 (I)</a>
	EV Adoption Target	H.B. 1370 requires motor vehicle lessors to have at least 10% zero-emission light duty passenger vehicles in their rental fleets by July 1, 2022. This requirement increases to 25% by July 1, 2024 and 50% by July 1, 2026. The bill includes a fee for noncompliance of \$1,000 per month per vehicle below the required amount.	<a href="#">H.B. 1370 (I)</a>
	EV Adoption Target	S.B. 996 requires motor vehicle lessors to have at least 10% zero-emission light duty passenger vehicles in their rental fleets by July 1, 2021. This requirement increases to 25% by July 1, 2023, 50% by July 1, 2025, 75% by July 1, 2030, and 100% by July 1, 2035. The bill includes a fee for noncompliance of \$1,000 per month per vehicle below the required amount.	<a href="#">S.B. 996 (I)</a>
	EV Parking	H.B. 559 requires that new multi-family residential buildings with at least 20 parking stalls and new commercial buildings with at least 40 parking stalls have at least 25% of the parking stalls EV charger ready. The requirement takes effect January 1, 2020, and buildings not complying will not receive a building permit.	<a href="#">H.B. 559 (I)</a>

EV Parking	H.B. 706 provides that each EV parking space at a place of public accommodation shall be counted as four parking spaces toward the total number available for use by the public, per city and county regulations. The bill also includes penalties if the places of public accommodation to not comply with the existing requirement to make a certain number of parking spaces available for EV charging.	<a href="#">H.B. 706 (I)</a>
EV Parking	H.B. 1090 requires that new state building construction and reconstruction includes at least 20 parking stalls that are EV charger ready. Certain smaller renovations are exempt from this requirement, as well as construction for which building permit efforts began before July 1, 2020.	<a href="#">H.B. 1090 (I)</a>
EV Parking	S.B. 437 increases the amount of EV parking spaces that places of public accommodation are required to make available. For places of public accommodation with at least 100 parking spaces available to the public, they will be required to have at least one EV-only parking space per 100 spaces by July 1, 2020 and two EV-only spaces per 100 spaces by July 1, 2024.	<a href="#">S.B. 437 (I)</a>
EV Parking	S.B. 653 requires Hawaii state buildings codes to require all new state building and county building construction, as well as significant reconstruction, to include at least 20 parking stalls that are EV charger ready. Smaller renovations are exempt from the requirement. The bill passed the Senate in March 2019.	<a href="#">S.B. 653 (P1)</a>
EV Parking	S.B. 761 increases the amount of EV parking spaces that places of public accommodation are required to make available. For places of public accommodation with at least 100 parking spaces available to the public, they will be required to have at least three EV-only parking space per 100 spaces by July 1, 2021. Places of public accommodation with at least 50 public parking spaces will be requires to have at least two EV-only parking spaces by July 1, 2021.	<a href="#">S.B. 761 (I)</a>
EV Parking	S.B. 1000 requires that new multi-family residential buildings with at least 20 parking stalls and new commercial buildings with at least 40 parking stalls have at least 25% of the parking stalls EV charger ready. The requirement takes effect January 1, 2020, and buildings not complying will not receive a building permit. The bill passed the Senate in March 2019. The bill was amended by the House	<a href="#">S.B. 1000 (I)</a>

		and passed in April 2019. The Senate disagreed with the House's amendments.	
	HOV Lane Access	H.B. 238 extends the expiration date for Act 168 of 2012 from June 30, 2020 to June 30, 2030. Act 168 allows EVs to acquire a special license plate that grants them access to HOV lanes and exempts them from parking fees.	<a href="#">H.B. 238 (I)</a>
	HOV Lane Access	H.B. 604 extends the expiration date for Act 168 of 2012 from June 30, 2020 to June 30, 2025. Act 168 allows EVs to acquire a special license plate that grants them access to HOV lanes and exempts them from parking fees.	<a href="#">H.B. 604 (I)</a> <a href="#">S.B. 111 (I)</a>
	HOV Lane Access	S.B. 657 extends the expiration date for Act 168 of 2012 from June 30, 2020 to June 30, 2030. Act 168 allows EVs to acquire a special license plate that grants them access to HOV lanes and exempts them from parking fees. The bill passed the Senate on March 5, 2019.	<a href="#">S.B. 657 (P1)</a>
	Performance Contracting	H.B. 401 allows public facilities to enter into energy performance contracts for energy conservation or alternative energy measures related to vehicles. The bill passed the House in March 2019. It was amended and passed by the Senate in April. The House disagreed with the Senate's amendments and the two chambers are gathering conferees.	<a href="#">H.B. 401 (P1)</a>
IL	Use of Public Funds	S.B. 198 allows counties, townships, and municipalities to use motor fuel tax funds to support infrastructure for EVs.	<a href="#">S.B. 198 (I)</a>
MA	Building Codes	H. 3629 amends an existing authorization for the State Board of Building Regulations and Standards to include EV charging requirements as amendments to state building and electric codes. Currently, the Board may adopt these requirements, but H. 3629 requires the Board to adopt such requirements.	<a href="#">H. 3629 (I)</a>
	Building Codes, Planning	H. 2873 directs the Department of Energy Resources to publish a guide to assist local governments in developing programs for residents to install curbside EV charging stations. The bill also directs the Department of Energy Resources and Department of Transportation to prepare a report identifying state routes, U.S. routes, and interstate highways in the state that are a high priority for public EV charging station installation. The bill also creates distinctive license plates for plug-in EVs that are to be available at no extra fee.	<a href="#">H. 2873 (I)</a>

	<p>Lastly, the bill amends an existing authorization for the State Board of Building Regulations and Standards to include EV charging requirements as amendments to state building and electric codes. Currently, the Board may adopt these requirements, but H. 2873 requires the Board to adopt such requirements.</p>	
EV Adoption Target	<p>H. 3121 requires transit agencies and school bus operators to operate only electric buses by December 31, 2035. By December 31, 2025, 25% of buses must be electric buses and by December 31, 2030, 50% of buses must be electric. Transit agencies and school bus operators must submit Electric Bus Rollout Plans.</p>	<a href="#">H. 3121 (I)</a>
EV Procurement	<p>H. 2872 directs the Secretary of Energy and Environmental Affairs, with the Department of Energy Resources, Department of Transportation, Department of Environmental Protection, and Department of Public Utilities, to develop a transition to a ZEV fleet program and require 50% of fleet vehicles to be low-emission or zero-emission by 2025. This requirement increases to 75% by 2030 and 100% by 2035. These requirements apply to state and municipal fleets, fleets used for commercial ride-sharing and ride-hailing, fleets used for public transportation, and fleets used as commercial motor carriers, freight services, limousine services, and taxis. The Secretary is to prioritize ZEV deployment in locations serving environmental justice populations. The bill also requires that 10% of all new vehicles purchases or leased by the state are low-emission vehicles by 2020, increasing to 20% by 2021. Furthermore, 40% of all new vehicles purchased or leased by the state are to be ZEVs by 2022, increasing to 60% by 2023, 80% by 2024, 90% by 2025, and 100% by 2026. Fees may be charged to private owners and operators failing to meet these requirements, and these fees will go toward resilient EV infrastructure. The bill also authorizes the Secretary to provide education, training, and technical assistance to fleet operators to support these goals.</p>	<a href="#">H. 2872 (I)</a>
EV Procurement	<p>S. 1927 directs the Secretary of Energy and Environmental Affairs, with the Department of Energy Resources, Department of Transportation, Department of Environmental Protection, and Department of Public Utilities, to develop a transition to a ZEV fleet program and require 50% of fleet vehicles to be low-emission</p>	<a href="#">S. 1927 (I)</a>



	<p>or zero-emission by 2025. This requirement increases to 75% by 2030 and 100% by 2035. These requirements apply to state and municipal fleets, fleets used for commercial ride-sharing and ride-hailing, fleets used for public transportation, and fleets used as commercial motor carriers, freight service, limousine services, and taxis. The Secretary is to prioritize ZEV deployment in locations serving environmental justice populations. The bill also requires that 10% of all new vehicles purchases or leased by the state are low-emission vehicles by 2020, increasing to 20% by 2021. Furthermore, 40% of all new vehicles purchased or leased by the state are to be ZEVs by 2022, increasing to 60% by 2023, 80% by 2024, 90% by 2025, and 100% by 2026. Fees may be charged to private owners and operators failing to meet these requirements, and these fees will go toward resilient EV infrastructure. The bill also authorizes the Secretary to provide education, training, and technical assistance to fleet operators to support these goals. The bill also authorizes the Department of Public Utilities to consider utility petitions to promote EV infrastructure through utility ownership or management of programs.</p>	
EV Procurement	<p>H. 2771 requires that motor vehicles owned and operated by the state be replaced only with ZEVs as they are removed from service. This requirement takes effect for light-duty passenger vehicles beginning in 2020 and for heavy-duty vehicles beginning in 2021. The bill exempts vehicles for which a hybrid or electric vehicle could not perform its intended duties, but does not allow vehicle range concerns to qualify. Any exempted vehicles must be replaced with vehicles that have above average fuel efficiency for their size class. Presently, all state vehicles must be replaced with vehicles that have above average fuel efficiency, but current law does not require these to be ZEVs.</p>	<p><a href="#">H. 2771 (I)</a></p>
EV Procurement	<p>H. 2809 requires the state to purchase ZEVs to the maximum extent possible when purchasing new vehicles. The vehicle requires that by 2020, 20% of vehicle purchases are ZEVs. This requirement increases by 5% per year until reaching 50% by 2026. The Department of Energy Resources is to provide information on the available ZEVs that can achieve a vehicle's intended purchase when new vehicle acquisition requests are submitted. The Division of Operational Services is to adopt a fuel efficiency</p>	<p><a href="#">H. 2809 (I)</a></p>

		standard for state owned and operated passenger vehicles.	
	HOV Lane Access	H. 2988 authorizes battery EVs to travel in high-occupancy vehicle lanes.	<a href="#">H. 2988 (I)</a>
	Land Leasing	H. 3052 allows the Department of Transportation to lease land (including safety rest areas, inspection stations, and referee stations) to install EV charging stations along state highways and interstates.	<a href="#">H. 3052 (I)</a>
	Passing Lane Use	H. 3187 exempts EV drivers from existing law requiring drivers to drive in the right-most lane except when passing or preparing for a left turn.	<a href="#">H. 3187 (I)</a>
MD	EV Parking	If the construction of a new business occupancy, hotel, motel, or multifamily dwelling includes the creation of 20 or more parking spaces, S.B. 987 requires 5% of the parking spaces to contain EV charging infrastructure.	<a href="#">S.B. 987 (I)</a>
	EV Procurement	H.B. 1255 requires that each school bus purchased by a county board of education be a ZEV starting October 1, 2022. It additionally requires that each school bus purchased by a person for use under a contract with a county board to provide transportation services be a ZEV starting October 1, 2025. The House passed the bill in March 2019 and the Senate passed it in April.	<a href="#">H.B. 1255 (P2)</a>
	HOV Lane Access	S.B. 70 extends the termination date for PEVs to use HOV lanes, regardless of the number of passengers. The bill allows the use of EVs in HOV lanes until 2025 from its current expiration in 2022. The bill passed the Senate in late January 2019 and the House in April 2019. the Governor signed the bill on April 18, 2019.	<a href="#">S.B. 70 (E)</a>
ME	EV Procurement	L.D. 1086 requires a certain portion of vehicles purchased by the state to be ZEVs. This percentage is 15% for fiscal year 2020-21 and increases by 5% each year until reaching 50% for fiscal year 2027-28.	<a href="#">L.D. 1086 (I)</a>
MN	EV Adoption Target	H.F. 242 creates a microtransit rideshare pilot program and requires that the fleet for the program consists of 50% electric or natural gas vehicles by 2024.	<a href="#">H.F. 242 (I)</a>
	EV Procurement	H.F. 1235 and S.F. 2427 require all motor vehicles used at airports operated by the Metropolitan Airports Commission to be all-electric vehicles by 2030.	<a href="#">H.F. 1235 (I)</a> <a href="#">S.F. 2427 (I)</a>

	General Market Development	H.F. 1865 and S.F. 2003 add promoting and increasing the use of EVs to the list of transportation goals of the state transportation system.	<a href="#">H.F. 1865 (I)</a> <a href="#">S.F. 2003 (I)</a>
MT	General Market Development	H.J.R. 15 is a resolve that it is in the state's interest to help identify opportunities and remove structural barriers to utilities reasonably augmenting the existing grid and energy production infrastructure for EVs. The resolve did not advance during the 2019 legislative session.	<a href="#">H.J.R. 15 (D)</a>
	Use of Public Funds	H.B. 764 establishes additional fees for EVs and PHEVs. The fees will go into a new Electric Vehicle Fund, which is to be used for the planning, development, implementation, and administration of programs, policies, and projects related to EV adoption and use in the state. The bill did not advance during the 2019 legislative session.	<a href="#">H.B. 764 (D)</a>
NH	EV Procurement, Planning	S.B. 275 requires that all of the state's motor vehicles are ZEVs by 2039. By 2024, all new purchases and leases of light duty vehicles are to be ZEVs, and by 2029 all new leases of trucks and vehicles over 10,000 pounds must be ZEVs. A ZEV 2039 plan is to be developed by all state agencies and departments by June 30, 2020. The bill also repeals a current statutory provisions prohibiting New Hampshire from joining, implementing, or participating in any state, regional, or national low carbon fuel standard program. The Senate passed an amended version of the bill in March 2019. The amended version requires that all of the state's motor vehicles are ZEVs by 2041, that by 2026 all new leases or purchases of light duty trucks or vehicles are ZEVs, and that by 2031 all new leases or purchases of trucks and vehicles over 10,000 pounds are ZEVs. The amended version retains the existing statutory provision prohibiting the state from implementing any state, regional, or national low carbon fuel standard program, but removes language preventing the state from joining or participating in such a program.	<a href="#">S.B. 275 (P1)</a>
NJ	Advisory Group	A.B. 1223 and S.B. 1793 establish a Clean Vehicles Task Force and clarify state law to require New Jersey to continue implementing the California Low Emission Vehicle Program and the California ZEV requirements. Members representing EV and EVSE manufacturing and the electric transportation industry would have seats on the 13-member Task Force. S.B. 1793 passed the Senate in March 2018.	<a href="#">A.B. 1223 (I)</a> <a href="#">S.B. 1793 (P1)</a>

Advisory Group	A.B. 2717 establishes the Renewable Energy Infrastructure and Advanced Technology Vehicle Task Force. The bill designates the seven members, allows the state agencies to hire clerical support staff to advance the task force activities, and would pursue funding for advanced vehicles and infrastructure deployment.	<a href="#">A.B. 2717 (I)</a>
EV Adoption Target, EV Charging Target, EV Parking, EV Procurement, EV Planning	A.B. 4634 establishes state goals for plug-in EV deployment. The goals are 330,000 registered light duty plug-in EVs by December 31, 2025, 2 million registered light duty plug-in EVs by December 31, 2035, and 90% of all new light duty vehicles sold in the state are plug-in EVs by December 31, 2040. The bill also establishes EV charging deployment goals of 600 fast chargers at 300 charging locations by December 31, 2021 and 1,000 Level 2 charging stations available for public use by December 31, 2021. Another goal in the bill is that by December 31, 2025, 25% of all multi-family residential properties and overnight lodging establishments will have EVSE and 50% by December 31, 2030. The bill also sets a goal of 25% of all places of employment having at least two EV parking spaces by December 31, 2025 and 50% of these properties by December 31, 2030. Another goal is that 40% of state-owned non-emergency light duty vehicles will be plug-in EVs by December 31, 2025 and 100% by December 31, 2035. The bill also sets a goal of at least 5% of new bus purchases made by the New Jersey Transit Corporation being plug-in EVs by the end of 2019, increasing to 10% in 2020, 20% in 2021, 40% in 2022, 60% in 2023, 80% in 2024, and 100% in 2025 and thereafter. The bill also establishes an EV Working Group to develop a statewide vehicle charging infrastructure plan. Furthermore, the bill directs public utilities to submit plans for construction and operation of the essential public charging network and to implement the plan upon approval from the Board of Public Utilities. Utilities are to engage third-party providers and use a competitive process when feasible.	<a href="#">A.B. 4634 (I)</a>
EV Adoption Target, EV Charging Target, EV Procurement	A.B. 3688 and S.B. 1975 establish statewide goals for adoption of PEVs and EV charging infrastructure. The bills direct the Department of Environmental Protection and various other state agencies to develop programs to achieve these goals. These actions include implementing a marketing and consumer awareness program and requiring a report that assesses the state of	<a href="#">A.B. 3688 (I)</a> <a href="#">S.B. 1975 (I)</a>

	<p>the market every five years. While many of the goals have mid-term benchmarks, some of the end goals include having two million registered PEVs by 2035, having 90% of all vehicles sold be PEVs in 2040, having 500 public Level 2 charging stations by 2020, and requiring that 100% of a state-owned light-duty vehicles purchased after 2035 be PEVs.</p>	
EV Parking	<p>A.B. 2166 establishes special parking for hybrid, electric, and alternative fuel vehicles. The bill requires that any parking area with 100 or more parking spaces include 5% of spaces as designated parking spaces for alternative fuel vehicles, including hybrid and electric. These spaces would be the most accessible spots, after spaces for handicapped persons. The spaces would be designated by green paint and identified with a sign that says "Hybrid and Alternatives Parking Only." Eligible vehicles would receive a sticker for the windshield, and violators could be fined \$250.</p>	<p><a href="#">A.B. 2166 (I)</a></p>
EV Procurement	<p>A.B. 1802, introduced in January 2018, requires local community colleges, boards of education, and local contracting units to only purchase hybrid EVs or EVs. An allowed exemption is when hybrids or EVs are not commonly available for the vehicle class.</p>	<p><a href="#">A.B. 1802 (I)</a></p>
EV Procurement	<p>A.B. 3980, introduced in May 2018, requires that each new vehicle purchased by the state be a hybrid EV, an EV, or a vehicle powered by a fuel other than conventional fuel such as compressed natural gas, fuel cells, biodiesel, ultra-low sulfur fuel, or any other motor vehicle fuel approved by the United States Environmental Protection Agency, unless no such mass produced vehicle exists in the vehicle class being purchased.</p>	<p><a href="#">A.B. 3980 (I)</a></p>
Local Bonding	<p>A.B. 4424 and S.B. 3025 allow counties and municipalities to issue bonds to acquire EVs and passenger cars and station wagons that are solely fueled by a renewable power source. A.B. 4424 was introduced in September 2018, and S.B. 3025 was introduced in October.</p>	<p><a href="#">A.B. 4424 (I)</a> <a href="#">S.B. 3025 (I)</a></p>
Planning	<p>A.B. 1371 and S.B. 606 are intended to encourage local municipalities to consider planning for EV charging stations at appropriate locations. The bill provides several opportunities and mechanisms. For example, the bills encourage municipalities to consider EV charging infrastructure each time the municipality reexamines its master plan. This bill suggests</p>	<p><a href="#">A.B. 1371 (I)</a> <a href="#">S.B. 606 (P1)</a></p>

		that a municipality's master plan should include the site of existing, future, and planned EVSE. By adding EVSE into a master plan, communities could and should address EVs in zoning ordinances. Also, the bill requires consideration of charging infrastructure locations in local redevelopment plans.	
	Planning	Companion bills A.B. 3075 and S.B. 597 encourage municipalities to plan for and identify financing mechanisms for EVSE through local redevelopment planning processes. Specifically, the bills direct and authorize municipalities to consider planning for public EV charging stations in redevelopment plans. The proposed legislation also authorizes municipalities to develop EVSE using revenue streams available for redevelopment projects. A.B. 3075 was amended in October 2018 to encourage redevelopment projects for all types of ZEVs, not just EVs. A.B. 3075 passed the Assembly in late January 2019.	<a href="#">A.B. 3075 (P1)</a> <a href="#">S.B. 597 (I)</a>
	Use of Public Funds	A.C.R. 166 and S.C.R. 40 are concurrent resolutions that would amend the State Constitution in order to direct revenue from New Jersey's participation in the Regional Greenhouse Gas Initiative to EV, clean energy, and greenhouse gas reduction programs. The first \$300 million in revenue would be used to fund programs for EVs and EVSE.	<a href="#">A.C.R. 166 (I)</a> <a href="#">S.C.R. 40 (I)</a>
	Width Exceedance	A.B. 1751, S.B. 721, and S.B. 723 allow all-electric school buses to operate on state roads with a maximum width of 102 inches. All other school buses are restricted to a maximum width of 96 inches.	<a href="#">A.B. 1751 (I)</a> <a href="#">S.B. 721 (P1)</a> <a href="#">S.B. 723 (I)</a>
NM	Clean Energy Standard	In August 2017, Western Resource Advocates, the New Mexico Attorney General, and Property WORKS filed a petition for rulemaking with the New Mexico Public Regulation Commission. The petitioners proposed a technology-neutral Clean Energy Standard, aiming to reduce CO2 emissions by 4% per year. The proposed standard would provide utilities with additional credit for each electric vehicle registered in its service territory. The Commission held workshops on the proposed standard in January, March, April, and June 2018. No action has occurred since, but the proceeding remains open.	<a href="#">Docket No. 17-00211-UT</a>
NV	EV Procurement	S.B. 42 repeals a law that required the use of alternative fuel vehicles in certain public fleets.	<a href="#">S.B. 42 (P1)</a>

	Weight Exceedance	A.B. 377 permits vehicles powered primarily by one or more electric motors to exceed vehicle weight limits by up to 2,000 pounds. The Assembly passed the bill in April 2019.	<a href="#">A.B. 377 (P1)</a>
NY	Charging Station Mapping	A.B. 4936 requires NYSEERDA to develop a phone app that can determine the location of EV charging stations.	<a href="#">A.B. 4936 (I)</a>
	EV Parking	A.B. 33 and S.B. 2274 require any parking station operated by the state with 50 to 200 parking spaces to install EV charging stations in at least 10% of the parking spaces available. Parking facilities with more than 200 parking spaces must install charging stations on at least 20% of the total spaces.	<a href="#">A.B. 33 (I)</a> <a href="#">S.B. 2274 (I)</a>
	EV Procurement	A.B. 180, introduced in January 2019, requires that after January 2020, 100% of all new light-duty vehicles purchased by state agencies shall be alternative fuel (includes EVs) motor vehicles, with the exception of police or emergency vehicles.	<a href="#">A.B. 180 (I)</a>
OR	Charging Station Development	H.B. 2093 authorizes the Department of Administrative Services to enter into contracts with entities to install, maintain, and operate EV charging stations. The House passed the bill in April 2019.	<a href="#">H.B. 2093 (P1)</a>
	EV Adoption Target	S.B. 623 requires that a person whose residence address is in a county with a population of 600,000 or more may not register a new vehicle in the state after December 31, 2034 unless the vehicle is a new EV.	<a href="#">S.B. 623 (I)</a>
	EV Parking	H.B. 3045 requires local governments to allow residential or commercial development applications to provide one parking space with EV charging as substitute for two required non-electrified spaces.	<a href="#">H.B. 3045 (I)</a>
	EV Parking, EV Procurement	H.B. 3141 requires the Director of the Department of Consumer and Business Services to adopt amendments to the state building code to require that newly constructed buildings provide for the charging of EVs. For public buildings and for multifamily residential buildings, the code must require that a 110-volt or 240-volt system suitable for EV charging provide service to at least 10% of the vehicle parking spaces in the garage or parking area for the building. The bill also requires that the operator of a public charging station may not require membership for use of the equipment and must accept a widely	<a href="#">H.B. 3141 (I)</a>



		available payment method. The bill also allows the Oregon Department of Administrative Services to enter into a price agreement or cooperative procurement to procure electric vehicles in bulk to reduce costs when purchasing EVs for the Department's motor fleet. Further, the Oregon Department of Administrative Services must ensure that at least 25% small vehicles purchased by the department are ZEVs by January 1, 2025. The department must also conduct a study on the costs and feasibility of implementing the California Innovative Clean Transit measure, which mandates that all public transit agencies transition to zero-emission buses by 2040. The department must report the results of the study to the interim legislative committees related to the environment, no later than September 15, 2020.	
PA	EV Procurement	Executive Order 2019-01 requires all agencies under the Governor's jurisdiction to replace 25 percent of the state passenger car fleet with battery electric and plug-in electric hybrid cars by 2025 and evaluate opportunities for the reduction of vehicle miles traveled and incorporation of new technology where appropriate.	<a href="#">Executive Order No. 2019-01</a>
RI	EV Procurement	H.B. 5631 and S.B. 558 require that by 2020 at least 15% of state fleet vehicle purchases are ZEVs. This requirement increases by 5% each year until reaching 50% in 2027.	<a href="#">H.B. 5631 (I)</a> <a href="#">S.B. 558 (I)</a>
	Planning	In October 2018, National Grid filed its 2019 System Reliability Procurement Report. As part of the report, National Grid proposed an effort to identify locations where EV charging stations could be installed and areas where large non-EV public transportation fleets are located. A hearing was held in December 2018.	<a href="#">Docket No. 4889</a> <a href="#">2019 System Reliability Procurement Report</a>
UT	Weight Exceedance	H.B. 474 allows EVs to exceed vehicle weight limits by up to 2,000 pounds.	<a href="#">H.B. 474 (D)</a>
VT	Use of Public Funds	H.B. 91 creates a greenhouse gas cap and trade program, with revenues going to the Sustainable Transportation Fund, which this bill would also establish. The fund would provide incentives and financing programs to reduce fossil fuel consumption, including investing in EVs and charging stations.	<a href="#">H.B. 91 (I)</a>
	Use of Public Funds	H.B. 277 adopts an additional five cent per gallon tax on gas and diesel and allocates the revenue to funding EV infrastructure and providing financial assistance to low-income	<a href="#">H.B. 277 (I)</a>

		customers to purchase new or used EVs, PHEVs, and hybrid vehicles.	
	Volkswagen Settlement	H.B. 87 directs the Secretary of Natural Resources to dedicate at least 15% of VW settlement funds to the purchase of light duty EVSE and use the remaining funds to replace mobile sources that consume fossil fuels with all-electric mobile sources.	<a href="#">H.B. 87 (I)</a>
WA	Clean Energy Standard, EV Charging Development	H.B. 1211 and S.B. 5116 increase the state's renewable portfolio standard to require that all retail sales are greenhouse gas neutral by 2030. A portion of the standard can be met with "energy transformation projects" which include electric vehicles and supporting infrastructure. After 2044, energy transformation projects would no longer be eligible. The Senate passed S.B. 5116 in March 2019, and the House passed it in April 2019.	<a href="#">H.B. 1211 (I)</a> <a href="#">S.B. 5116 (P2)</a>
	Emissions Reduction Program, EV Charging Development	S.B. 5412 creates the Clean Fuels Program, which is intended to reduce the greenhouse gas emissions of transportation fuels. Fueling electric vehicles with electricity certified to have a carbon intensity of zero, and providing zero emission vehicle refueling infrastructure can generate emissions credits.	<a href="#">S.B. 5412 (I)</a>
	EV Parking	H.B. 1257 and S.B. 5293 direct the state building code council to require EV charging capability at all new buildings. The greater of one parking space of 10% of parking spaces must have EV charging infrastructure at places with parking. Electrical rooms serving parking areas must be designed to serve a minimum of 50% of total parking spaces with 208/240 volt, 40-amp charging infrastructure. These requirements would not apply to residential R-3, utility, or miscellaneous buildings, and would only apply to employee parking spaces for assembly and mercantile buildings. The House passed H.B. 1257 in March 2019, and the Senate passed it in April.	<a href="#">H.B. 1257 (P2)</a> <a href="#">S.B. 5293 (I)</a>
	EV Procurement	H.B. 1832 requires all light duty vehicles of model year 2023 or later and all medium and heavy duty vehicles of model year 2026 or later operated by state agencies to be EVs.	<a href="#">H.B. 1832 (I)</a>
	Planning	H.B. 1110 authorizes the governing authorities of municipal utilities and commissions of public utility districts to adopt transportation electrification plans. These utilities may offer transportation electrification programs to their	<a href="#">H.B. 1110 (P1)</a>

	customers after making a cost-effectiveness determination. The House passed the bill in March 2019.	
Planning	H.B. 1127 authorizes the governing authorities of municipal utilities and commissions of public utility districts to adopt transportation electrification plans. These utilities may offer transportation electrification programs to their customers after making a cost-effectiveness determination.	<a href="#">H.B. 1127 (I)</a>
Planning	H.B. 1512 authorizes the governing authorities of municipal utilities and commissions of public utility districts to adopt transportation electrification plans. These utilities may offer transportation electrification programs to their customers after making a cost-effectiveness determination. The bill also authorizes electric utilities regulated by the Utilities and Transportation Commission to submit a transportation electrification plan including EVSE deployment, incentives, or other services. The House passed the bill in March 2019 and the Senate passed it on April 10, 2019.	<a href="#">H.B. 1512 (P2)</a>
Planning	H.B. 2042 directs the Washington State University extension energy program to administer a technical assistance and education program focused on alternative fuel vehicles. The bill also allows the Department of Transportation's public-private partnership office to maintain a program to support EV charging infrastructure deployment; current law allows for a pilot program. The bill also directs the Department of Transportation's public-private partnership office to develop a pilot program to support EV car sharing programs to serve underserved and low to moderate income communities. The House passed the bill in April 2019.	<a href="#">H.B. 2042 (P1)</a>

Legislative Status Key: I = Introduced, P1 = Passed One Chamber, P2 = Passed Both Chambers, E = Enacted, D = Dead. Bill statuses are up to date as of early May 2019.

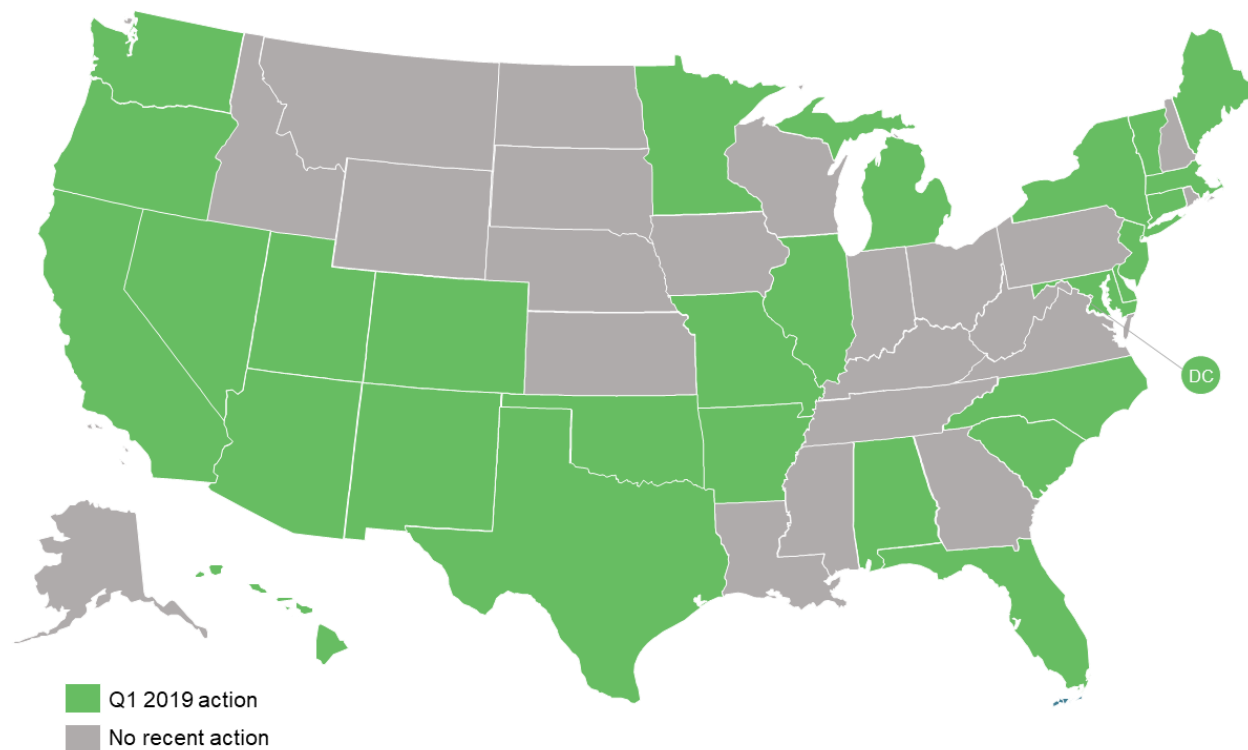
## FINANCIAL INCENTIVES

### Key Takeaways:

- In Q1 2019, there were 109 actions ongoing or under consideration in 28 states plus DC related to incentives for electric vehicles and charging infrastructure.
- Of these, 47 were rebate programs, 19 were grant programs, 18 were sales or use tax incentives, and 14 were state tax credits.
- Forty-nine actions relate to incentives for electric vehicles, 44 relate to incentives for charging infrastructure, and 16 relate to both vehicles and infrastructure.

In Q1 2019, there were 109 actions ongoing or under consideration in 28 states and DC related to incentives for electric vehicles or charging infrastructure. These actions include income tax credits, property and sales tax exemptions, grant programs, rebate programs, and loan programs. Many new bills creating or modifying incentives were introduced in Q1 2019 with the start of state legislative sessions.

**Figure 15. Action on Financial Incentives (Q1 2019)**



Of these actions, 44 pertain to incentives for electric vehicle charging infrastructure, while 49 pertain only to vehicles, and 16 involve both infrastructure and vehicles. Alabama legislators approved a new Electric Transportation Infrastructure Grant Program for charging stations in March 2019. The grant program will be funded by revenue from the new electric vehicle registration fee adopted in the same bill. Regulators in Michigan and Missouri also approved

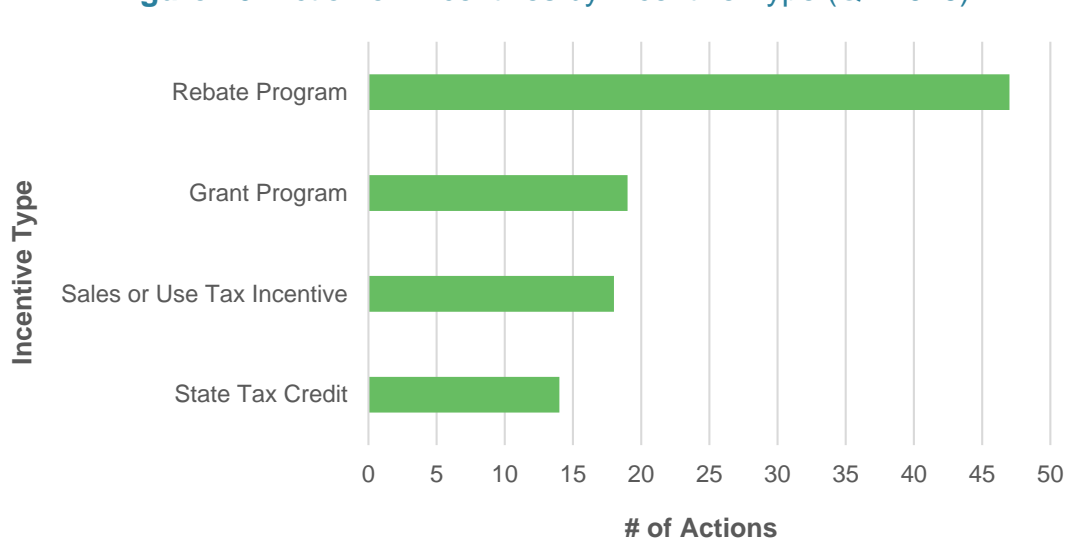
new incentive programs in Q1 2019, which will provide rebates for charging stations to Consumers Energy and Ameren Missouri customers.

### Box 5. Tax Incentives, Grants, Rebates, and Financing Programs

The term **tax incentives** covers a broad spectrum of incentives, including income **tax credits** and **deductions**; **property tax exemptions**, exclusions, abatements, and credits; and **sales and use tax exemptions** and refunds. **Grant programs** are one-time monetary payments, typically awarded through a competitive process, while **rebate programs** provide cash incentives for equipment installations meeting program specifications. Finally, **loan programs** provide financing for the purchase of electric vehicles or charging infrastructure and **Property Assessed Clean Energy (PACE) financing** programs allow property owners to borrow money to pay for certain clean energy improvements and repay the amount via a special assessment on the property. Find incentives for renewable energy and energy efficiency technologies with the [Database of State Incentives for Renewables and Efficiency](#).

Duke Energy requested approval for new electric vehicle charging incentives for its North Carolina customers in late Q1 2019, and Portland General Electric in Oregon proposed two new electric vehicle pilot programs offering rebates for charging infrastructure. Xcel Energy also proposed a new charging incentive pilot program for its Minnesota residential customers, and NV Energy in Nevada recommended expanding its charging incentives to include rebates for residential and public charging.

Figure 16. Action on Incentives by Incentive Type (Q1 2019)



**Table 7. Updates on Financial Incentives (Q1 2019)**

State	Incentive Type	Description	Source
AL	Grant Program	H.B. 2B establishes a \$200 annual registration fee for battery EVs and a \$100 annual registration fee for PHEVs. Beginning on July 1, 2023 and every four years after, these fees increase by \$3. The fee will be reduced by any future additional annual federal surcharge for registration fee, but will not be reduced below \$150 for a battery EV and \$75 for a PHEV. The bill also creates an Electric Transportation Infrastructure Grant Program to provide grants for EV charging infrastructure. The first \$150 and first \$75 of the EV and PHEV fee revenues will be provided to the state (66.67%) counties (25%), and cities (8.33%). The remaining revenue will go into the Rebuild Alabama Fund to fund the Electric Transportation Infrastructure Grant Program. Once EV and PHEV registrations reach 4% of total vehicle registration in the state, the fees will be reduced to \$150 for EVs and \$75 for PHEVs, and all funds will go to the state, counties, and cities. The bill was signed into law in March 2019.	<a href="#">H.B. 2B (E)</a>
	Grant Program	H.B. 81 establishes a \$250 annual registration fee for battery EVs and a \$125 annual registration fee for PHEVs. Beginning on July 1, 2023 and every four years after, these fees increase by \$5. The fee will be reduced by any future additional annual federal surcharge for registration fee, but will not be reduced below \$150 for a battery EV and \$75 for a PHEV. The bill also creates an Electric Transportation Infrastructure Grant Program to provide grants for EV charging infrastructure. The first \$150 and first \$75 of the EV and PHEV fee revenues will be provided to the state (66.67%) counties (25%), and cities (8.33%). The remaining revenue will go into the Rebuild Alabama Fund to fund the Electric Transportation Infrastructure Grant Program. Once EV and PHEV registrations reach 2% of total vehicle registration in the state, all funds will go to the state, counties, and cities.	<a href="#">H.B. 81 (I)</a>
AR	Tax Credit	S.B. 482 establishes an income tax credit for new electric and hybrid vehicles. The credit for hybrid vehicles is \$150, and the credit for EVs is \$300. The bill passed the Senate, but did not continue to advance before the legislative session ended in April 2019.	<a href="#">S.B. 482 (D)</a>
AZ	Rebate Program	As part of Arizona Public Service's (APS) 2018 Demand-Side Management Plan, filed in September 2017, the utility proposed the addition of a new pilot incentive for EV pre-wiring to its existing Residential New Construction Program. The incentive would be	<a href="#">Docket No. E-01345A-17-0134</a>

		equal to \$100 per home, and provided to homebuilders installing EV pre-wiring in garages. In early July 2018, Commissioner Olson requested that APS submit the Ratepayer Impact Measure and savings during peak for each program.	
CA	Rebate Program	A.B. 126 establishes income limits for applicants to be eligible for the Clean Vehicle Rebate Program, and increases the rebate level for low-income applicants.	<a href="#">A.B. 126 (I)</a>
	Rebate Program	A.B. 735 requires a manufacturer of a vehicle eligible under the Clean Vehicle Rebate Project to certify in writing that the vehicle's supply chain is free of materials acquired using child labor.	<a href="#">A.B. 735 (I)</a>
	Rebate Program	A.B. 1046 increases the goal of the Charge Ahead California Initiative from placing in service at least 1 million ZEVs and near-ZEVs by January 1, 2023, to placing in service of at least 5 million ZEVs by January 1, 2030. The bill further requires the forecast for the Clean Vehicle Rebate Project to include, among other things, the total state rebate investment necessary to facilitate reaching the 2030 goal and recommendations on changes to the project structure and rebate levels.	<a href="#">A.B. 1046 (I)</a>
	Rebate Program	S.B. 400 allows electric bicycles to potentially be eligible under the Clean Cars 4 All Program.	<a href="#">S.B. 400 (I)</a>
	Rebate Program	Following its Charge Ready Pilot Program in 2016, Southern California Edison (SCE) applied for approval of its Charge Ready 2 Program in June 2018. The four-year \$760 million program includes a mix of direct deployment of infrastructure and rebates to support a total of 48,000 EV charging stations for light-duty vehicles. The utility plans to offer rebates in two of the component programs, the Make-Ready Infrastructure Expansion and the New Construction Rebate Program. The Make-Ready Infrastructure Expansion program also features direct deployments without rebates, and will target workplaces, multi-unit dwellings, destination centers, governmental locations, and fleets and will provide rebates of up to \$2,000 per port for Level 2 charging stations, and up to \$27,000 for DCFC stations. The Own and Operate program will target multi-unit dwellings, providing rebates of up to \$4,000 per port for the completed installation of Level 1 or Level 2 charging stations. SCE's application also includes a proposed schedule, ending with a final decision in June 2019. The Commission hosted a prehearing conference in September 2018. A scoping ruling issued in October 2018 established the issues to be considered in the proceeding and the schedule	<a href="#">Docket No. A-18-06-15</a> <a href="#">Application</a> <a href="#">Program Description (Chapter III)</a>



		through April 2019. An Evidentiary Hearing was held in January and February 2019.	
	Rebate Program	In July 2018, Pacific Gas and Electric filed an application for approval of its Empower Electric Vehicle Charger Incentive and Education Program. The proposed program would provide point-of-sale incentives for residential EV chargers for approximately 2,000 low-moderate income customers, while reserving additional funds for panel upgrades for up to 800 low-income customers. A prehearing conference was held in October 2018. The Assigned Commissioner issued a scoping ruling in December 2018 listing the scope of issues and establishing the initial schedule with a proposed decision slated for Q2 2019. No significant action took place in Q1 2019.	<a href="#">Docket No. A-18-07-021</a>
	Sales Tax Incentive	A.B. 176, as introduced, establishes a financing authority that would be allowed to provide a sales and use tax exclusion for alternative energy and advanced transportation projects. The total amount of such exclusions would be capped at \$100 million per year.	<a href="#">A.B. 176 (I)</a>
	Sales Tax Incentive	A.B. 784 exempts certain zero-emission medium- and heavy-duty transit bus vehicles from sales and use tax until January 1, 2024.	<a href="#">A.B. 784 (I)</a>
	Sales Tax Incentive	A.B. 938 exempts from sales and use taxes the value of a vehicle that is 11 years or older and is traded in for an enhanced advanced technology partial zero-emission vehicle (enhanced AT PZEV) or transitional zero-emission vehicle (TZEV).	<a href="#">A.B. 938 (I)</a>
CO	Grant Program	H.B. 1198 modifies the state's EV grant fund by allowing grants to be prioritized based on any criteria defined by the Colorado Energy Office, rather than the prospective recipient's potential for and commitment to energy efficiency. The bill also allows grants to be used to fund charging station installation, as well as to help offset station operating costs. The bill was signed into law in April 2019.	<a href="#">H.B. 1198 (E)</a>
	Tax Credit	H.B. 1159 extends the income tax credits for purchase or lease of innovative motor vehicles and innovative trucks. From 2020-2023, the credit would be \$4,000 for a purchase or \$2,000 for a lease of an innovative motor vehicle, and from 2023-2026 the credit would be \$2,500 for a purchase and \$1,500 for a lease. The credit for trucks previously available from 2020 to 2021 would be extended to 2023, and the credit for trucks previously available from 2021 to 2022 would now be available from 2023-2026.	<a href="#">H.B. 1159 (I)</a>

CT	Rebate Program	H.B. 5947 requires the Department of Energy and Environmental Protection to continue to offer and expand the Hydrogen and Electric Automobile Purchase Rebate program for EVs, PHEVs, and fuel cell vehicles.	<a href="#">H.B. 5947 (I)</a>
	Rebate Program	H.B. 7205 establishes a rebate program for the purchase or lease of battery EVs, PHEVs, and fuel cell EVs, as well as the purchase of used hydrogen or electric vehicles. The Connecticut Hydrogen and Electric Automobile Purchase Rebate Board, created by this bill, is to determine the rebate levels. At least \$3 million per year is to be provided in rebates.	<a href="#">H.B. 7205 (I)</a>
DC	Rebate Program	<p>In April 2017, Pepco filed a proposal to implement a new PEV program. Part of this program would include an option for residential customers to have a smart level 2 charging station installed for 50% of the station and installation costs. This program is limited to 50 customers, and requires installation of a second meter. Pepco may remotely manage these chargers. The proposed program would also install up to ten smart level 2 charging stations at multi-family buildings at 50% of the cost. In October 2017, this docket was merged into Formal Case No. 1130. PEPCO hosted EV workshops in April, May, and June 2018. PEPCO used the workshops to present a revised EV program proposal and to receive input from stakeholders on several issues, including: operational and policy considerations, outreach and education, increasing EV penetration for broader and more diverse populations, and addressing barriers to EV penetration in all quadrants of DC.</p> <p>In September 2018, PEPCO filed an application for approval of its Transportation Electrification Program. The program consists of 13 offerings, including financial incentives for the deployment of charging infrastructure at homes, multifamily residential buildings, workplaces, and neighborhoods. The incentives include a 50% discount on the cost of new residential Smart Level 2 EVSE for 50 customers, \$500 rebates for Smart Level 2 EVSE for 500 residential customers, and discounts on the cost of new Smart Level 2 EVSE for multi-dwelling buildings. An April 2019 order granted in part and denied in part Pepco's Transportation Electrification Program. The incentives included in the proposal were among the elements denied by the Commission. Instead, the order establishes a temporary Transportation Electrification Working Group to further explore and develop offerings for a fixed price residential rebate and multi-dwelling unit EV charging station deployment. The order also opened a new docket</p>	<p><a href="#">Formal Case No. 1143</a></p> <p><a href="#">Formal Case No. 1130</a></p> <p><a href="#">Formal Case No. 1155</a></p> <p><a href="#">Transportation Electrification Program</a></p> <p><a href="#">Order</a></p>

		(Formal Case No. 1155) to continue working on Pepco's Transportation Electrification Program.	
DE	Credit Program, Loan Program, Rebate Program	In October 2017, Delmarva Power & Light (DPL) filed a proposal to implement a new PEV program. Part of this program would include an option for residential customers with existing plug-in vehicles and charging infrastructure to use a "FleetCarma" device, which will provide information on usage location, time, and amount of charge to both the customer and the utility. Participating customers will receive an upfront credit of \$50, a \$5 monthly credit, and additional credit for off-peak charging. This program is limited to 50 customers. Another part of this program would include an option for residential customers to have a smart level 2 charging station installed for 50% of the station and installation costs. Twelve-month interest-free financing would also be offered to these customers. This program is limited to 50 customers, and a second meter will be installed to sub-meter the charging station. Delmarva proposes to also install up to ten smart level 2 charging stations at multi-family buildings at 50% of the cost. In February 2018, Delmarva filed an amended application, based on feedback from public comment sessions, which adds an electric bus component to the utility's proposal. The electric bus program would provide up to \$400,000 to schools and community centers to fund the difference between traditional diesel school buses and new electric vehicle-to-grid-ready school buses. Multiple parties to the proceeding have questioned the Commission's regulatory oversight of EV charging stations. In July 2018, the Division of the Public Advocate and the Commission Staff filed a joint motion to stay Delmarva's application until the earlier of June 30, 2019 or the date that a statute deregulating electric charging stations becomes effective. In June 2018, DPL informed the parties that its parent company, Exelon, had engaged a consultant earlier in the year to study issues related to electric vehicles in its various jurisdictions, and requested to have the study (The Gabel Report) entered into the record, and to have the evidentiary hearings postponed to give all parties the opportunity to review the study. A September order asked parties to agree upon a new procedural schedule to provide for discovery upon the Gabel Report. Delmarva, the Public Advocate, and the Commission Staff filed a settlement agreement in January 2019, agreeing to all aspects of the program. An April Hearing Examiner's Report recommends approving the settlement agreement.	<a href="#">Docket No. 17-1094</a> <a href="#">Gabel Report</a> <a href="#">Settlement Agreement</a>
FL	Rebate Program	S.B. 1368 establishes a rebate program for electric and hybrid fleet vehicles. The rebate is equal to the	<a href="#">S.B. 1368 (I)</a>

		<p>lesser of 50% of eligible costs or \$25,000 per vehicle (\$250,000 per fiscal year). Eligible costs are defined as the cost to convert a vehicle from diesel or gasoline to electric or hybrid, or the incremental cost of purchasing an electric or hybrid vehicle compared to an equivalent diesel or gasoline vehicle. The bill reserves 40% of rebates for governmental applicants, while the remainder may be allocated to commercial applicants. The bill appropriates funds for the rebate program through the 2023-2024 fiscal year.</p>	
HI	Grant Program	<p>H.B. 1370 establishes a ZEV infrastructure grant program. Grants will be available to public agencies and private organizations on a competitive basis, with priority given to large-scale integration of ZEVs into rental motor vehicle fleets.</p>	<a href="#">H.B. 1370 (I)</a>
	Parking Fee Exemption	<p>H.B. 239 limits the parking fee exemption for EVs to 2.5 hours of metered parking or the maximum amount of the meter allows (whichever is longer). The bill also specifies that this exemption is not available for parking fees assessed for increments longer than a day.</p>	<a href="#">H.B. 239 (I)</a>
	Parking Fee Exemption	<p>H.B. 1052 and S.B. 1278 limit the existing parking fee exemption for EVs so that it does not apply to parking periods longer than four hours for non-metered stalls.</p>	<a href="#">H.B. 1052 (I)</a> <a href="#">S.B. 1278 (I)</a>
	Rebate	<p>H.B. 1585 creates a rebate program to be administered by the Public Utilities Commission or a third party administrator of its choosing to provide incentives for the installation of new EV charging equipment or upgrades to existing systems. The bill in its current form does not specify the rebate levels, but sets an annual cap of \$1 million for all rebates. The bill passed the House in March 2019. The bill was amended in the Senate, passed, and returned to the House in April 2019. Both chambers passed an amended version of the bill in April.</p>	<a href="#">H.B. 1585 (P2)</a>
	Tax Credit	<p>S.B. 438 establishes a tax credit for EV charging stations that are available for public use. The credit is worth 30% of qualified costs for a Level 2 charging system with a single port with a maximum credit of \$2,000; 50% for a Level 2 charging system with two or more ports with a maximum credit of \$6,000; and 70% for a Level 3 charging system with a maximum credit of \$35,000. There is an annual aggregate cap of \$3,000,000. The bill passed the Senate on March 5, 2019.</p>	<a href="#">S.B. 438 (P1)</a>
IL	Grant Program	<p>H.B. 2899 amends the Alternate Fuels Act by replacing all instances of the words "alternative fuel"</p>	<a href="#">H.B. 2899 (I)</a>

		with "electric." The bill also redirects an infrastructure grant program to EV charging infrastructure, and redirects a rebate program for alternative fuel vehicles to EVs specifically, while increasing the maximum rebate available from \$4,000 to \$24,000 per vehicle.	
MA	Grant Program	H. 2873 establishes a grant program for ZEVs to begin once funds for the MOR-EV program are exhausted. The Department of Energy Resources Commissioner is to establish incentive levels.	<a href="#">H. 2873 (I)</a>
	Grant Program, Rebate Program, Sales Bonus	H. 3629 establishes a competitive grant program to provide funding and technical assistance to a regional transit authority for innovative transportation planning and fleet electrification. Funding may be used to purchase EVs and charging infrastructure. The bill also creates a rebate program for car dealerships selling or leasing EVs of no more than \$75,000. The dealership will receive \$400 for each EV sold or leased, with at least \$200 going to the salesperson. Additionally, the bill creates a rebate program for consumers purchasing or leasing EVs of up to \$40,000. The rebate is to be at least \$5,000. Furthermore, the Department of Energy Resources is to conduct a study evaluating the costs and benefits of an instant rebate program for EVs, as well as a study evaluating the costs and benefits of providing additional financial incentives to low-income individuals for purchasing or leasing EVs.	<a href="#">H. 3629 (I)</a>
	Rebate Program	H. 2875 and H. 2923 establish a rebate program for the purchase of lease of plug-in EVs. The rebate for vehicles with a battery capacity of 10 kWh or more is \$2,500, and the rebate for vehicles with a battery capacity of at least 4 kWh and less than 10 kWh is \$1,500.	<a href="#">H. 2875 (I)</a> <a href="#">H. 2923 (I)</a>
	Rebate Program	In November 2018, National Grid filed a general rate case, which includes a proposed Phase II Electric Vehicle Market Development Program. The program includes three offerings - Level 2 Residential, Level 2 Non-Residential, and DCFC sites. The residential offering provides \$1,000 rebates for networked Level 2 EV charging stations at single-family homes, as well as an off-peak charging rebate of 5 cents per kWh during summer months and 3 cents per kWh during all other months. The estimated budget is \$9 million for the residential rebate program and \$5.6 million for the off-peak charging rebate. The non-residential offering will provide customers with two options for EVSE installation: purchasing and managing the charging station (customer-owned option) or having National Grid own and operate the charging station (company-owned option). Customer	<a href="#">Docket No. 18-150</a>

		selecting the company-owned option will contribute toward the upfront cost and ongoing operation and maintenance costs. National Grid is aiming for 10% of charging sites developed to be in disadvantaged communities and will cover up to 100% of the cost for these participants. The estimated budget for the non-residential program is \$110 million. Finally, the DCFC offering will involve the utility deploying charging infrastructure and providing rebates for charging equipment, with a focus on highway and retail locations, public transit sites, and school bus sites.	
	Rental Fee Exemption	S. 1661 establishes a \$2 surcharge on each vehicle rental transaction in the state, with the revenue going to the Renewable Energy Trust Fund. Electric and hybrid vehicle rentals would be exempt from this surcharge.	<a href="#">S. 1661 (I)</a>
	Sales Tax Incentive	H. 2571 establishes a sales tax exemption for electric and hybrid vehicles on Earth Day.	<a href="#">H. 2571 (I)</a>
	Toll Discount	H. 3185 creates a 25% reduction in tolls for EV drivers on the Massachusetts Turnpike, Tobin Bridge, and Ted Williams Tunnel. The bill sets forth fines for anyone allowing an unauthorized driver to use the toll reduction.	<a href="#">H. 3185 (I)</a>
MD	Excise Tax Incentive	H.B. 1246, as amended, changes the value of the vehicle excise tax credit for the purchase of certain plug-in EVs to the lesser of the actual excise tax paid or \$3,000. The House passed the bill in March 2019. The Senate amended the bill, passed, and sent it back to the House in April 2019. The House rejected the Senate's amendments and requested a conference committee. Both chambers passed the bill that emerged from the conference committee.	<a href="#">H.B. 1246 (P2)</a>
	Excise Tax Incentive	S.B. 78, introduced in January 2019, makes the vehicle excise tax credit for EVs permanent, limited to \$3 million each year. The shortfall in excise tax to the Transportation Trust Fund will be replenished from the Maryland Strategic Energy Investment Fund.	<a href="#">S.B. 78 (I)</a>
	Grant Program	H.B. 826 creates the Electric Vehicle Infrastructure Modernization Grant Program to be administered by the Maryland Energy Administration using funding from the Strategic Energy Investment Fund. The purpose of the program is to facilitate the electrical upgrade of a parking structure owned by the governing body of a condominium or HOA in order to encourage the installation and use of EV charging equipment. The House passed the bill in March 2019.	<a href="#">H.B. 826 (P1)</a>



Rebate Program	H.B. 72 allows applicants who applied for a rebate for purchasing qualified EV recharging equipment during fiscal year 2017 but did not receive the rebate to reapply for a rebate during fiscal year 2020. The bill further provides a credit against the excise tax for a plug-in electric vehicle that is purchased new and titled for the first time on or after July 1, 2016, but before July 1, 2017.	<a href="#">H.B. 72 (I)</a>
Rebate Program	H.B. 1180 creates the Plug-In Electric Drive Vehicle Rebate Program to be administered by the Maryland Energy Administration during fiscal years 2021 through 2023. New vehicles with a total purchase price not exceeding \$60,000 and with a battery capacity of at least 5 kWh can qualify for a rebate equal to the lesser of \$100 times the kWh capacity of the battery or \$3,000. The program is limited to \$8 million per year.	<a href="#">H.B. 1180 (I)</a>
Rebate Program	In January 2018, the EV working group filed a proposal for the Public Service Commission (PSC) to open a new proceeding to consider a statewide electric vehicle portfolio. The proposed portfolio would include residential, non-residential, public, innovation, and technology sub-portfolios for each service territory. The residential sub-portfolio includes smart level 2 charging station rebates, (all utilities), EV whole-house TOU rates (all utilities except Potomac Edison), smart level 2 charging station rebates with EV-only rate design components (Delmarva and Pepco), and FleetCarma non-rate incentives for off-peak charging (Delmarva and Pepco). The non-residential sub-portfolio includes incentives for multifamily/multi-unit dwellings (all utilities), incentives for workplace charging (all utilities), incentives for fleets (all utilities except Potomac Edison), and incentives for public-facing commercial and industrial locations (Baltimore Gas & Electric and Potomac Edison). The public sub-portfolio includes incentives for public level 2 smart chargers (all utilities) and incentives for public DC fast charging (all utilities). The innovation sub-portfolio includes grants for innovative ideas to serve multiple users and/or multiple tenant applications (all utilities except Potomac Edison). The technology demonstration sub-portfolio includes a demonstration project pairing a cluster of DC fast chargers with an energy storage device (Delmarva and Pepco). One of Potomac Edison's DC fast charging public locations will include an energy storage system; this will be a part of the utility's public sub-portfolio, rather than a separate technology sub-portfolio. Baltimore Gas & Electric proposed a managed charging demonstration program that would be part of its public sub-portfolio.	<a href="#">Case No. 9478</a> <a href="#">Public Conference No. 44</a>



		<p>The Office of the People's Counsel (OPC) filed a letter later in January, requesting that the PSC go through the full evidentiary process to investigate this proposal. In February 2018, the PSC opened a new proceeding (Case No. 9478). The PSC held an initial legislative-style hearing in May 2018. The hearing addressed the current state of EVs in the state, the potential growth of EVs in the state, the potential benefits and costs of increasing Maryland's ability to integrate more EVs, how the working group's proposal fits into the current and potential growth of EVs in the state, and the proper role of utility investment in EV infrastructure. The PSC held another legislative-style hearing in September 2018. A January 2019 order approved in part and denied in part the proposed portfolio. Notably, the utilities' residential incentives were approved at lower incentive levels (\$300, down from \$500), and with a budget to support fewer rebates than proposed. The order also approved the utilities' residential programs on the condition that they each develop and file tariffs on residential EV-only TOU rates to encourage off-peak EV charging. The order further requires the utilities to develop a new rate class for EV charging stations and submit tariff proposals that describe the rights and estimated charges for EV customers, including public station charging and non-residential charging. The order approves the utilities' non-residential sub-portfolios, and further requires Potomac Edison to develop an incentives for multi-family/multi-unit dwellings.</p>	
ME	Grant Program	L.D. 1299 creates a grant program through Efficiency Maine to assist municipalities, state agencies, colleges, and university in purchasing EVs and charging stations. Grants may be for the full or partial cost of purchases.	<a href="#">L.D. 1299 (D)</a>
	Rebate Program	L.D. 614 establishes a rebate program for people purchasing or leasing an eligible EV (manufacturer's suggested retail price of not more than \$50,000), beginning in July 2020. The rebate amount is \$2,500, and it is to be administered by the Efficiency Maine Trust. The bill also appropriates \$500,000 to support the program.	<a href="#">L.D. 614 (I)</a>
	Tax Credit	L.D. 604 establishes a state tax credit for individuals purchasing a plug-in EV of \$50,000 or less in-state. The credit is equal to \$300, plus \$50 for each kWh of battery capacity over 5 kWh, up to a maximum credit of \$1,500.	<a href="#">L.D. 604 (D)</a>
MI	Rebate Program	In May 2018, as part of a rate case, Consumers Energy proposed a new "Foundational Infrastructure	<a href="#">Docket No. U-20134</a>

	<p>Plan" which would provide rebates to customers who install EV charging infrastructure. The rebate would provide \$500 to residential customers who install an EV charger, which is estimated to cover 25% of the cost for the average customer. The program would also provide larger rebates for commercial customers installing multiple chargers or direct current fast charging stations. A settlement agreement was filed in December 2018, which would approve the proposed programs, but would not resolve the question of whether Consumers Energy may recover costs for the EV program through deferred accounting. On January 9, 2019, the Commission approved the settlement agreement and issued an order allowing Consumers to recover costs for the EV program as a regulatory asset.</p>	<p><a href="#">Order Approving Settlement Agreement</a></p> <p><a href="#">Order Approving Regulatory Asset</a></p>
<p>Rebate Program</p>	<p>In its most recent rate case, filed in July 2018, DTE requested cost recovery for a new electric vehicle program, Charging Forward. The three primary components of the Charging Forward program include customer education and outreach, residential smart charger support, and charging infrastructure enablement. The program would be implemented over three years at a cost of \$13 million. The residential smart charger support component of the program would provide a rebate of up to \$500 to ~2,800 residential customers who own an EV and install a qualified "smart" Level 2 charger. The charging infrastructure enablement component of the program would involve the utility contributing the costs for make-ready equipment up to the meter, and provide a fixed rebate to customers for the installation of EV supply equipment (after-the-meter, including panel, conduit, and wiring). Site hosts will be responsible for the purchase, operation, and maintenance of the EV charging station. A prehearing conference was held in July 2018. Cross-examination hearings were held from December 12-19, 2018. Parties filed briefs in January 2019. A proposal for decision was filed in early March 2019. The proposal for decision adopts the Commission Staff's proposal for an expanded School Bus Pilot Program. The proposal for decision does not adopt the Staff's proposal for an 80 Amp Charging Pilot. The proposal for decision would require DTE to amend its tariffs to permit electricity sales for resale at commercial EV charging sites, as recommended by the Commission Staff. Furthermore, the proposal for decision adopts the Staff's proposal for a five-year demand charge holiday for EV charging site hosts and the Staff's proposal for additional sub-metering options for Level 2 charging. The proposal for decision also directs DTE to use the same consumer protection measures approved in</p>	<p><a href="#">Docket No. U-20162</a></p> <p><a href="#">Proposal for Decision</a></p>

		Consumers Energy's settlement agreement. The proposal for decision also increases the Charging Forward program budget by \$6 million, as proposed by the Commission Staff, and approves the regulatory asset treatment for Charging Forward deferred costs. DTE is to examine whether there would be cost savings if a tracker were used for future rebate programs.	
MN	Grant Program	H.F. 2618 and S.F. 2664 establish an electric school bus demonstration grant program to be administered by the Department of Education. A school district that owns and operates school buses or contracts with a private school bus contractor is eligible to apply. The bills appropriate \$500,000 to the program.	<a href="#">H.F. 2618 (I)</a> <a href="#">S.F. 2664 (I)</a>
	Grant Program, Rebate Program	H.F. 1833 and S.F. 2067 provide a rebate of \$2,500 for the purchase of a new EV with a purchase price that does not exceed \$60,000, and \$500 for the purchase of a used EV. The bills also provide for a grant program to help fund the installation of a network of public EV charging stations. The bills also establish an electric school bus demonstration grant program.	<a href="#">H.F. 1833 (I)</a> <a href="#">S.F. 2067 (I)</a>
	Grant Program, Rebate Program	H.F. 2233 and S.F. 2528 provide a rebate of \$2,500 for the purchase of a new EV with a purchase price that does not exceed \$60,000, and \$500 for the purchase of a used EV. The bills also provide for a grant program to help fund the installation of a network of public EV charging stations. The bills appropriate \$7.5 million for the rebate program and \$1.5 million for the grant program.	<a href="#">H.F. 2233 (I)</a> <a href="#">S.F. 2528 (I)</a>
	Loan Program	H.F. 2492 and S.F. 2342 establish an EV charging station revolving loan fund to make loans for all or part of the cost of an EV charging station project installed in Minnesota, and tasks the Department of Commerce with administering it. The minimum interest rates are not to exceed 1% for a loan to a borrower that is the state, other governmental entity, or a nonprofit organization; or 3% for a loan to a borrower that is a private business. The bills appropriate \$1.5 million for the program.	<a href="#">H.F. 2492 (I)</a> <a href="#">S.F. 2342 (I)</a>
	Loan Program	S.F. 1692 requires the Commissioner of Commerce to establish an electric vehicle charging station revolving loan fund to make loans for all or part of the cost of an electric vehicle charging station project installed in Minnesota.	<a href="#">S.F. 1692 (I)</a>
	Rebate Program	In February 2019, Xcel Energy filed a modification to its Conservation Improvement Program to include a new Charging Perks pilot program for its residential customers. The pilot will test various rebate levels	<a href="#">Docket No. 16-115</a>

		and quarterly incentives to incentivize up to 400 customers to purchase an ENERGY STAR-certified, demand response capable Level 2 charging station. In exchange for receiving these incentives, the customer will allow Xcel to test load shifting with the charger. For the pilot customer, they will arrive at home, plug in, and charging will be delayed until the early morning hours. A proposed decision filed on April 11, 2019 extends the existing Conservation Improvement Program through 2020 without approving the Charging Perks pilot program.	
	Tax Credit	H.F. 1897 creates a tax credit of \$3,000 for the purchase of a new EV or hybrid vehicle with a purchase price of \$50,000 or less. The credit expires on 12/31/2023.	<a href="#">H.F. 1897 (I)</a>
MO	Rebate Program	In February 2018, Ameren proposed an incentive program for EV charging infrastructure; the program would provide incentives for third parties to install EV charging stations rather than have the utility own the charging stations. The Missouri Public Service Commission previously ruled that it lacks jurisdiction over EV charging stations, disallowing cost recovery for utility investments in such infrastructure. The Missouri Office of Public Counsel has filed a motion to dismiss this proceeding with the previous ruling as a basis. In May 2018, the Commission rejected the motion to dismiss, and ordered the parties to propose a procedural schedule. In August 2018, the Missouri Court of Appeals issued a decision overruling the Commission's previous ruling and finding that the Commission does have jurisdiction over EV charging stations. In early October 2018, the Commission Staff released a report assessing the costs and benefits of Ameren's proposed incentive program; Staff recommended that incentives be limited to relatively low charging speed applications in publicly accessible areas. In October 2018, the parties filed a settlement agreement, which would approve Ameren's proposed program. In a position statement filed in late November 2018, Commission Staff recommended rejection of the program, arguing that there is a lack of necessity for the program. A hearing was held in early December 2018, and parties filed post-hearing briefs in January. In early February 2019, the Commission issued an order denying three of Ameren's proposed program elements (the Public Charging Program, Workplace Charging Program, and Multi-Family Charging Sub-Program), but approving the EV Charging Corridor Sub-Program, which will provide incentives for installation of charging stations along highways. In March 2019, the Commission approved the tariffs for the program.	<a href="#">Docket No. ET-2018-0132</a> <a href="#">Court of Appeals Decision</a> <a href="#">Order</a>

NC	Rebate Program	<p>Duke Energy Carolinas filed a proposal for a \$45.6 million Electric Transportation Pilot program in March 2019. In addition to direct deployment of utility-owned charging infrastructure, the three-year pilot program includes incentive programs for residential charging equipment, fleet charging equipment, and transit bus charging equipment. It also includes incentives for electric school buses. The residential program will provide a rebate of \$1,000 for up to 500 residential customers. Participants would need to allow transmission of charging load data to the utility and allow utility management of home charging during defined hours. The fleet charging program will provide a \$2,500 incentive to commercial and industrial customers that operate fleet vehicles. Participating customers must install all EVSE behind a separate meter taking service on an available commercial TOU rate. The electric school bus program will provide up to \$215,000 per bus to school districts willing to purchase an electric school bus with bi-directional power flow capabilities. The program is capped at 55 buses, and the customer must allow access to all vehicle charging data, and perform testing of charging load management and bi-directional charging capabilities. The Commission is accepting comments on the proposal through July 5, 2019 and reply comments through July 19, 2019.</p>	<a href="#">Docket No. E-7 Sub 1195</a>
	Rebate Program	<p>Duke Energy Progress filed a proposal for a \$30.4 million Electric Transportation Pilot program in March 2019. In addition to direct deployment of utility-owned charging infrastructure, the three-year pilot program includes incentive programs for residential charging equipment, fleet charging equipment, and transit bus charging equipment. It also includes incentives for electric school buses. The residential program will provide a rebate of \$1,000 for up to 300 residential customers. Participants would need to allow transmission of charging load data to the utility and allow utility management of home charging during defined hours. The fleet charging program will provide a \$2,500 incentive to commercial and industrial customers that operate fleet vehicles. Participating customers must install all EVSE behind a separate meter taking service on an available commercial TOU rate. The electric school bus program will provide up to \$215,000 per bus to school districts willing to purchase an electric school bus with bi-directional power flow capabilities. The program is capped at 30 buses, and the customer must allow access to all vehicle charging data, and perform testing of charging load management and bi-directional charging capabilities. The Commission is accepting comments on the proposal through July 5, 2019 and reply comments through July 19, 2019.</p>	<a href="#">Docket No. E-2 Sub 1197</a>

NJ	Credit Program	S.B. 594 and A.B. 4005 provide a 50% credit against the Societal Benefits Charge (SBC) for utility customers who install and manage publically available EV charging stations. The SBC is a charge imposed on all customers of New Jersey's investor-owned utilities for reducing energy use and promoting renewable energy. Under the bills, the electric or gas customer would receive a credit of 50% of what they would typically owe for the SBC each calendar year.	<a href="#">A.B. 4005 (I)</a> <a href="#">S.B. 594 (I)</a>
	Grant Program	A.B. 3830 and S.B. 2436, introduced in April 2018, create a three-year "Electric School Bus Pilot Program" to determine the reliability and cost-effectiveness of using electric school buses for transporting students. The bill requires the Board of Public Utilities to select at least three school districts and award up to a total of \$10 million. Funding would come from revenues of the state's societal benefits charge. Funding may be used for the purchase electric school buses and to purchase and install EVSE for the buses.	<a href="#">A.B. 3830 (I)</a> <a href="#">S.B. 2436 (I)</a>
	Grant Program, Loan Program, Rebate Program	A.B. 3734 and S.B. 612 amend state law to dedicate the first \$300 million from state's participation in the Regional Greenhouse Gas Initiative to EV and EV infrastructure programs. Specifically, the bill recommends the creation of rebates for EV purchasers, loans or grants for EVSE, and funding for local government planning for public EVSE. The Department of Environmental Protection would adopt guidelines and ranking systems for allocating funds to eligible projects.	<a href="#">A.B. 3734 (I)</a> <a href="#">S.B. 612 (I)</a>
	Grant Program, Rebate Program	In February 2018, Atlantic City Electric filed an application for its five-year, \$14.9 million Plug-In Vehicle Program. The proposed program includes discounted installation (50% discount on EVSE cost and 50% discount on installation) of up to 300 Smart Level 2 charging stations for residential customers (total cost of \$1.55 million). PSE&G also plans to offer discounted installation (50% discount on EVSE cost and 100% discount on installation) of up to 50 Smart Level 2 charging stations at multi-family buildings (total cost of \$607,500). PSE&G also plans to offer discounted installation (50% discount on EVSE cost) of up to 100 Smart Level 2 charging stations at workplaces (total cost of \$465,000). Additionally, PSE&G's program includes a \$2 million innovation fund through which the utility will provide grant funding for various types of innovative transportation electrification projects.	<a href="#">Atlantic City Electric Filing (Docket No. E018020190)</a>



Grant Program, Rebate Program	<p>In September 2018, PSE&amp;G New Jersey filed its proposed Clean Energy Future plan, including investments in energy efficiency, electric vehicles, energy storage, and AMI. The Board of Public Utilities directed PSE&amp;G to make separate filings for each of its proposed Clean Energy Future programs, which the utility filed in October 2018. The Clean Energy Future - Electric Vehicle and Energy Storage program includes rebates for networked residential EV charging stations (Level 2), rebates for Level 2 mixed use charging, and incentives for electric school buses and charging infrastructure. PSE&amp;G will also either own or provide incentives for public DC fast charging stations. The total proposed budget for the Clean Energy Future EV programs is \$261 million, with \$93 million being for residential smart charging rebates, \$39 million for mixed use charging, and \$45 million for electric school bus incentives and other innovative projects. Rebates for the residential smart charging program will be up to \$2,000 per installation, and PSE&amp;G also proposed a rebate of 2 cents per kWh for all participant charging that occurs off-peak. As part of the Residential Smart Charging subprogram, PSE&amp;G also proposed a technical trial to collect data from 500 participating vehicles. Participation in the trial will be voluntary. Rebates for the Level 2 Mixed-Use Charging subprogram will be tiered by participant type: multifamily - 80%, local government - 60%, other public entities - 40%, and other private entities - 20%. Proposed incentives for electric buses are \$300,000 per bus, for up to 102 buses, and PSE&amp;G plans to test vehicle-to-grid or vehicle-to-building technology with a portion of these buses. DC fast charging rebates will be tiered as follows: public entities - 80% and non-public entities - 40%. PSE&amp;G also proposed monthly rebates for DC fast charging station owners (for five years) to help overcome high demand charges associated with these projects. The rebate will cover the difference between the effective cost per kWh for monthly fast charging usage and the subprogram "target rate," which is to be determined. PSE&amp;G proposed a new rider (Technology Innovation Charge) to recover costs associated with the Clean Energy Future Electric Vehicle and Energy Storage programs.</p>	<p><a href="#">PSE&amp;G Regulatory Filings (Docket No. EO18101111)</a></p>
Property Tax Incentive	<p>A.B. 1396 and S.B. 1994 exempt EV charging systems from property taxes. The bill outlines a process for applying for appropriate certificates and deducting the value of EVSE from property value for tax purposes.</p>	<p><a href="#">A.B. 1396 (I)</a> <a href="#">S.B. 1994 (I)</a></p>
Rebate Program	<p>A.B. 1363 creates a rebate program for the purchase of alternative fuel vehicles through the Department of Environmental Protection. EVs and PHEVs are</p>	<p><a href="#">A.B. 1363 (I)</a></p>



	included within the definition of "qualified alternative fuel vehicles" that would receive rebates through the program. Eligible purchases or vehicle leases could receive up to \$5,000 per vehicle. An additional \$1,500 rebate would be provided to purchasers with incomes less than 300% below the federal poverty level.	
Rebate Program	A.B. 4634 and S.B. 2252 establish an EV rebate program offering rebates equal to \$25 per mile of electric power range, up to \$5,000.	<a href="#">A.B. 4634 (I)</a> <a href="#">S.B. 2252 (I)</a>
Rebate Program	In September 2018, PSE&G New Jersey filed its proposed Clean Energy Future plan, including investments in energy efficiency, electric vehicles, energy storage, and AMI. The Board of Public Utilities directed PSE&G to make separate filings for each of its proposed Clean Energy Future programs, which the utility filed in October 2018. The Clean Energy Future - Energy Efficiency Program includes a variety of customer-focused programs, including a Smart Homes Pilot Program focused on providing comprehensive energy solutions to participants. The program covers a wide variety of technologies, including traditional energy efficiency and smart appliances, as well as battery storage, water heaters, connected PV inverters, and electric vehicles. Rebate levels for platforms or individual devices will be set prior to the subprogram launch. The total proposed budget for the Smart Homes Pilot Program is about \$26.3 million.	<a href="#">PSE&amp;G Regulatory Filings (Docket No. EO18101113)</a>
Rebate Program, Sales or Use Tax Incentive	A.B. 3847 and S.B. 2382 create a rebate program for the purchase or lease of light-duty PEVs. The bills also establish rebates for low-income vehicle owners who scrap old vehicles at the time of EV purchase. The bills establish other incentives, including updates to ZEV sales tax exemptions. The PEV rebate would start at \$5,000 per vehicle. The "Plug-in Electric Vehicles Rebate and Incentive Fund" would be established with a total budget of \$100 million per year for 3 years (\$300 million total).	<a href="#">A.B. 3847 (I)</a> <a href="#">S.B. 2382 (I)</a>
Sales or Use Tax Incentive	A.B. 1032 extends the state's sales and use tax exemption to include PHEVs. Under current law, a vehicle may be exempt from the State sales and use tax if it qualifies as a "zero emission vehicle." This bill would extend the sales tax exemption to include PHEV. In late March 2018, the New Jersey Legislature's Sales Tax Review Commission reviewed the bill and recommended "to not enact."	<a href="#">A.B. 1032 (I)</a>
Sales or Use Tax Incentive	S.B. 148 creates a sales tax exemption for vehicles with an average fuel economy of over 40 mpg. The	<a href="#">S.B. 148 (I)</a>

		sales tax exemption applies for two years after purchase and applies to up to \$40,000 of the vehicle purchase price.	
	Tax Credit	A.B. 114 creates a state tax credit for the purchase and installation of EV charging stations by businesses and individuals. The tax credits would require an application and would be available for tax periods from 2014 to 2016.	<a href="#">A.B. 114 (I)</a> <a href="#">S.B. 2255 (I)</a>
	Tax Credit	A.B. 1364 creates a state tax credit for individuals who purchase or lease alternative fuel vehicles. The bill outlines requirements for having the vehicle purchase or lease certified by the Department of Environmental Protection. The tax credit of up to \$5,000 is available for the purchase or lease of "qualified alternative fuel vehicles" for personal use. EVs and PHEVs would qualify as eligible vehicles. An additional \$1,500 tax credit would be provided to purchasers with incomes less than 300% below the federal poverty level.	<a href="#">A.B. 1364 (I)</a>
	Tax Credit, Tax Deduction	A.B. 1455 and S.B. 711 establish business tax credits and income tax deductions for the purchase of installation of EV charging stations. These credits would be established for three years following enactment of the bill. For the business tax credit, an amount of up to \$500 or 25% of the cost of EVSE would be allowed; the total credit allowed in the second year is \$300 or 15% of cost, and credit allowed in the third year is \$150 or 8% of cost. The income tax deduction would be enacted with the same structure with deductions ranging from \$500 in the first year to \$150 in the third year of the program.	<a href="#">A.B. 1455 (I)</a> <a href="#">S.B. 711 (I)</a>
NM	Excise Tax Incentive	H.B. 612 provides a one-time exemption from vehicle excise taxes for EVs, PHEVs, and hybrid vehicles until July 1, 2024. The bill did not advance during the 2019 legislative session.	<a href="#">H.B. 612 (D)</a>
	Rebate Program	H.B. 521 directs public utilities to file applications to expand transportation electrification by January 1, 2021. These applications may include investments or incentives for charging infrastructure deployment, rate designs, and customer education and outreach programs. Utilities undertaking transportation electrification activities approved by the Commission will have the option of recovering costs through a rider, base rates, or both. The Governor signed the bill into law in April 2019.	<a href="#">H.B. 521 (E)</a>
	Tax Credit	H.B. 185 and S.B. 333 establish an income tax credit for individuals purchasing or leasing a qualified EV. The credit may not exceed \$2,500 for most individuals. The maximum is \$3,500 for single	<a href="#">H.B. 185 (D)</a> <a href="#">S.B. 333 (D)</a>

		individuals with an income of \$50,000 or less and married individuals with an income of \$37,500 or less. The bills also create a \$300 tax credit (or the maximum cost, whichever is less) for individuals installing EV charging stations. The aggregate amount of EV charging tax credits that may be provided each year is \$500,000, and the credit also expires at the end of 2026. The bills did not advance during the 2019 legislative session.	
NV	Rebate Program	In February 2019, NV Energy filed its annual plan for program year 2019-2020 incentive programs, including the EV Charging Station Incentive Program. In addition to the continuation of its existing charging station incentives for multifamily, workplace, and fleet locations, the proposal includes an expansion into a public charging program and a residential program. The residential program would provide rebates up to the lesser of \$500 or 75% of project costs for Level 2 or DCFC equipment for up to 1,000 customers. A prehearing conference was held on March 20, 2019. Testimony is due by April 29, 2019 and a hearing is scheduled for May 20-21, 2019.	<a href="#">Docket No. 19-02001</a>
	Rebate Program	S.B. 299 authorizes NV Energy to expand its Electric Vehicle Infrastructure Demonstration Program to include incentives for public schools to purchase either electric school buses or EV charging equipment. The Senate passed the bill on 4/16/2019.	<a href="#">S.B. 299 (P1)</a>
	Rebate Program	S.B. 330 authorizes NV Energy to expand its Electric Vehicle Infrastructure Demonstration Program to include incentives for public schools to purchase either electric school buses or EV charging equipment.	<a href="#">S.B. 330 (I)</a>
NY	Congestion Fee Exemption	A.B. 6861 exempts EVs from congestion pricing fees.	<a href="#">A.B. 6861 (I)</a>
	Rebate Program	In June 2018, PSEG Long Island filed an annual update of its 2014 Utility 2.0 Long Range Plan. The plan includes an 80% (up to \$500) rebate for installation of an EV charger. The plan also includes an incentive for public fast charging stations based on a "set point" approach; a set point for the cost of EV charging based on the cost of fueling with gasoline would be established, and public EV chargers would be reimbursed for the difference between the cost they pay for electricity under their retail rate and the set point. Parties including the New York Power Authority, the New York Battery and Energy Storage Technology Consortium (NY-BEST), and a coalition of environmental groups submitted comments on the plan during Q3 2018;	<a href="#">Docket No. 14-01299</a>

	<p>comments were generally supportive; NY-BEST and the environmental groups emphasized that the "set point" approach used to offset demand charges for public DC fast chargers (DCFC) needed to be set low enough to allow rates to be attractive to drivers. The Department of Public Service filed recommendations in early November regarding the plan, which included support for the rebate.</p>	
Rebate Program	<p>As part of Orange and Rockland's general rate case, filed in January 2018, the utility proposed a new program to offer rebates for Level 2 EV chargers to prospective residential PEV buyers. The company has also proposed an education and outreach program to accompany the rebate program. The proposed budget is \$375,000 over three years. A joint proposal was filed in early November 2018, which includes the rebate program. Parties filed reply statements arguing for and against the joint proposal in early December 2018. In March 2019, the Commission issued an order approving the settlement agreement (joint proposal). Orange and Rockland filed a tariff implementing the new rates in late March 2019.</p>	<p><a href="#">Docket No. 18-00253/18-E-0067</a></p>
Registration Fee Exemption	<p>S.B. 241, introduced in January 2019, exempts new clean fuel vehicles (including EVs) from paying registration fees for the first year of registration.</p>	<p><a href="#">S.B. 241 (I)</a></p>
Sales Tax Incentive	<p>A.B. 2630 and S.B. 3602 provide low-emission and energy efficiency vehicles (certified by the U.S. Environmental Protection Agency and with an air pollution score of 9 or better and greenhouse gas score of 9 or better) with an exemption from retail sales and use tax up to \$27 million.</p>	<p><a href="#">A.B. 2630 (I)</a> <a href="#">S.B. 3602 (I)</a></p>
Sales Tax Incentive	<p>A.B. 5637 exempts high-efficiency (including electric) and hybrid vehicles from state sales and use taxes. The bill provides municipalities imposing these taxes through local law the option to exempt these vehicles from sales and use taxes as well.</p>	<p><a href="#">A.B. 5637 (I)</a></p>
Sales Tax Incentive	<p>A.B. 6434 and S.B. 3827 exempt the first \$35,000 of the price of electric and plug-in hybrid vehicles from state sales and use taxes. It also allows any city or county imposing these taxes to elect to adopt this exemption.</p>	<p><a href="#">A.B. 6434 (I)</a> <a href="#">S.B. 3827 (I)</a></p>
Sales Tax Incentive	<p>S.B. 1291 exempts PHEVs from paying state sales and use taxes. The bill also authorizes any city with a population of at least one million to provide a similar incentive.</p>	<p><a href="#">S.B. 1291 (I)</a></p>
Tax Credit	<p>A.B. 3592 creates a tax credit for the installation of EV charging outlets in the parking garages of</p>	<p><a href="#">A.B. 3592 (I)</a></p>

		condominium management associations or cooperative housing corporations. The credit would be worth 55% of the cost of the installation, to a maximum of \$5,000.	
OK	Grant Program	The Oklahoma Department of Environmental Quality is issuing grants to install electric vehicle charging stations at certain designated locations. The funding for this program is part of the Volkswagen settlement. The grants will provide up to 80% of the cost of the charging stations. A webinar on the program was held on December 18, 2018, and applications for the program were accepted until March 1, 2019.	<a href="#">ChargeOK Website</a>
	Tax Credit	H.B. 2095, H.B. 2112, and S.B. 797 modify the credit for investment in clean-burning motor vehicle fuel property. The maximum credit amount will be \$5,500 for vehicles up to 6,000 pounds, \$9,000 for vehicles between 6,001 and 10,000 pounds, and \$26,000 for vehicles between 10,001 and 26,500 pounds. The bills establish an annual limit of \$20 million on the credits that may be allocated beginning in 2020. The bills each passed one chamber.	<a href="#">H.B. 2095 (P1)</a> <a href="#">H.B. 2112 (P1)</a> <a href="#">S.B. 797 (P1)</a>
	Tax Credit	S.B. 826 was originally a bill to provide the Department of Labor with authority to access and inspect equipment, practices, and methods associated with public access EV charging stations. The bill also would have authorized the Commissioner of Labor to establish administrative fees for the registration, inspection, and operation of public access EV charging stations. The bill was substituted with an income tax credit bill on February 27, 2019. The substituted bill creates an income tax credit of \$3,000 for new EV purchases and \$1,500 for new plug-in hybrid vehicle purchases, and would create income tax credits for installation of charging stations of 45% of the cost for publicly accessible stations and 50% of the cost (maximum \$1,000) for private stations. The total statewide value of credits allowed yearly would be \$8 million, with provisions to reduce the credit amount if it is more than that. The substituted bill passed the Senate in March 2019.	<a href="#">S.B. 826 (P1)</a>
OR	Loan Program	H.B. 2309 directs the Department of Transportation to develop a program to lend money to school districts to procure electric school buses. Loans would be available for the incremental cost (difference between the cost of a diesel school bus and an electric school bus) of purchasing an electric school bus.	<a href="#">H.B. 2309 (I)</a>
	Rebate Program	Following the its approval for three EV pilot programs in 2018, Portland General Electric filed an application	<a href="#">Docket No. UM 2003</a>

		<p>for the approval of two additional pilot programs in February 2019. The Residential EV Charging Pilot program aims to provide rebates for approximately 3,600 charging stations at single-family homes over a three-year period. Participants will receive a rebate ranging from \$500 to 1,000 per charger, and EV dealers will receive a \$100 mid-stream rebate for referring a qualified successful EV charger installation. Further, the pilot program will test the effectiveness of providing grid services, specifically demand response using home chargers, by offering customers a \$50 annual incentive for participating in grid services events. The Business EV Charging Pilot Program will support nonresidential customers' deployment of chargers with approximately 600 charging ports at 90 customer sites over about three years. This pilot program targets two groups of customers: (1) business charging at workplaces, multifamily dwellings, multitenant buildings, destination centers (e.g. big-box retail), and fleets; and (2) public transit agencies. Through the business charging program, PGE would install, own, and maintain both the distribution and the make-ready infrastructure, as well as provide rebates for the customer-owned charging equipment (\$575 for Level 2 charging ports and \$2,300 for ports installed at income-qualified multi-family properties). For public transit agencies, PGE proposes to install, own, operate, and maintain the distribution infrastructure, make-ready infrastructure, and EV charging equipment.</p>	
	Rebate Program	<p>Existing law provides rebates to people who purchase or lease ZEVs in the state. Rebate recipients who sell or terminate the lease of a vehicle within 24 months must reimburse the rebate administrator the full amount of the rebate. H.B. 3111 provides that a recipient only needs to reimburse a prorated amount based on the number of months they owned or leased the vehicle. The bill also allows the administrator to waive the reimbursement entirely in certain cases.</p>	<a href="#">H.B. 3111 (I)</a>
	Rebate Program	<p>S.B. 91 requires at least 50% of public purchase charges to be used to provide incentives to retail electricity customers for transportation electrification.</p>	<a href="#">S.B. 91 (I)</a>
SC	Rebate Program	<p>In October 2018, Duke Energy Carolinas filed an application for a \$7.1 million, three-year electric transportation pilot program. The proposed pilot includes four programs: (1) a residential EV charging program, (2) an EV school bus charging program, (3) an EV transit bus charging program, and (4) a DC fast charging station program. The residential EV charging program will provide rebates for the</p>	<a href="#">Docket No. 2018-321-E</a>



		<p>installation of networked Level 2 EVSE. The two EV bus charging programs will also provide rebates, and the school bus program will test vehicle-to-grid capabilities. The DC fast charging program would involve Duke Energy owning and operating up to 20 DC fast charging stations. In December 2018, the Office of Regulatory Staff requested that the Commission hold the comment period and further action in abeyance to allow the opportunity for a stakeholder process. Stakeholders met twice in 2019 and in April 2019, the Office of Regulatory Staff filed a report on the stakeholder process with recommendations for the proposed programs. Duke Energy Carolinas filed an amended application based on the stakeholder recommendations. The revised application includes higher budgets for the EV School Bus Program and the DC Fast Charging Program, bringing the total budget to \$9.8 million.</p>	
	Rebate Program	<p>In October 2018, Duke Energy Progress filed an application for a \$3.3 million, three-year electric transportation pilot program. The proposed pilot includes three programs: (1) an EV school bus charging program, (2) an EV transit bus charging program, and (3) a DC fast charging station program. The two EV bus charging programs will also provide rebates, and the school bus program will test vehicle-to-grid capabilities. The DC fast charging program would involve Duke Energy owning and operating up to 10 DC fast charging stations. In December 2018, the Office of Regulatory Staff requested that the Commission hold the comment period and further action in abeyance to allow the opportunity for a stakeholder process. Stakeholders met twice in 2019 and in April 2019, the Office of Regulatory Staff filed a report on the stakeholder process with recommendations for the proposed programs. Duke Energy Progress filed an amended application based on the stakeholder recommendations. The revised application includes higher budgets for the EV School Bus Program and the DC Fast Charging Program, bringing the total budget to \$4.7 million.</p>	<p><a href="#">Docket No. 2018-322-E</a></p>
	Sales Tax Incentive	<p>H.B. 3415 exempts any device, equipment, or machinery used in the production of electric or hybrid vehicles from state sales tax.</p>	<p><a href="#">H.B. 3415 (I)</a></p>
TX	Tax Credit	<p>H.B. 2253 and S.B. 1070 increase the currently existing incentive for vehicle replacement with an electric, hybrid, or natural gas vehicle by \$1,000.</p>	<p><a href="#">H.B. 2253 (I)</a> <a href="#">S.B. 1070 (I)</a></p>
UT	Tax Credit	<p>H.B. 413 extends the corporate and individual income tax credits for energy efficient vehicles. The revised credit is \$1,000 and will apply to both EVs plug-in hybrid vehicles. The aggregate annual</p>	<p><a href="#">H.B. 413 (D)</a></p>



		amount of tax credits is limited to \$2 million. The bill did not advance during the 2019 legislative session.	
VT	Bill Credit Program	In February 2019, Green Mountain Power announced, in partnership with Renewable Energy Vermont, a new incentive option available through its Bring Your Own Device (BYOD) program. Green Mountain Power is now offering a monthly \$10 bill credit if customers enroll an EV charger in the BYOD program.	<a href="#">Press Release</a>
	Grant Program	H.B. 352 adopts a carbon tax, with funds being devoted to a new carbon-free investment program. The investment program will provide grants for home weatherization and alternative heating systems, as well as for individuals and businesses to invest in EV charging technology.	<a href="#">H.B. 352 (I)</a>
	Point-of-Sale Incentive	H.B. 400 establishes a point-of-sale incentive for new and used EVs. The program would provide an incentive of \$5,000 for battery electric vehicles and \$2,500 for PHEVs to households with an income between 100% and 140% of the state's median household income level. Additional incentives of up to twice this amount will be available to households below the state's median household income level. Vehicles with a base manufacturer's suggested retail price of \$45,000 or less will be eligible. The bill also calls for participants to receive a Level 2 home charger to the extent public utilities are willing to participate. The bill appropriates \$4.5 million to the incentive for the first year, and in following years the incentive will be funded by a fee on utilities, based on a percentage of the incremental revenue earned from the increase in electric load due to EV charging.	<a href="#">H.B. 400 (I)</a>
	Point-of-Sale Incentive	H.B. 475 establishes a new incentive program for new and used EV purchases and leases. The program offers a \$2,500 incentive to households with income levels between 100% and 140% of the state's median household income level. Incentives of up to twice this amount are available to households below the median income level. The incentive applies to vehicles with a base manufacturer's suggested retail price of \$45,000 or less and will run for two years. To the extent utilities are willing to participate, the incentives will come with a Level 2 charging station funded under Tier 3 of the Renewable Energy Standard.	<a href="#">H.B. 475 (I)</a>
	Point-of-Sale Incentive	H.B. 529 establishes a new incentive program for new and used EV purchases and leases. The program offers a \$2,500 incentive to households with income levels between 100% and 140% of the state's median household income level. Incentives of	<a href="#">H.B. 529 (P1)</a>

		<p>\$5,000 are available to households below the median income level. The incentive applies to vehicles with a base manufacturer's suggested retail price of \$40,000 or less and will run until funds are fully obligated. To the extent utilities are willing to participate, the incentives will come with a Level 2 charging station funded under Tier 3 of the Renewable Energy Standard. The House passed an amended version of the bill in March 2019. The amendments do not make substantive changes to the EV provisions of the original bill.</p>	
	Point-of-Sale Incentive, Sales Tax Incentive	<p>H.B. 471 exempts the first \$30,000 of an EV or plug-in hybrid EV from state sales and use taxes until January 1, 2021 or 1,500 exemptions have been granted. The bill also creates an Electric Vehicle Credit Program, providing a \$2,000 point-of-sale credit to the first 1,000 eligible purchasers (residents qualifying for benefits from the Agency of Human Services) buying new or used EVs or plug-in hybrid EVs during 2020.</p>	<a href="#">H.B. 471 (I)</a>
WA	Grant Program, Sales Tax Incentive	<p>H.B. 2042 allows municipal utilities and public utility districts to adopt transportation electrification plans and offer incentive programs for transportation electrification, after making a cost-effectiveness determination. Utilities regulated by the Utilities and Transportation Commission may also file transportation electrification plans. The bill also allows the Department of Transportation's public-private partnership office to maintain a program to support EV charging infrastructure deployment; current law allows for a pilot program. Furthermore, the bill authorizes a 50% credit against excise taxes for the purchase of alternative fuel vehicle infrastructure. The maximum annual amount of credits that may be provided is \$6 million and \$32.5 million since the credit began in 2015. The bill also exempts clean alternative fuel vehicles from the tax on retail car rental and the state use tax. The bill also exempts the sale of zero-emission buses from state sales and use taxes and extends the current exemptions to August 1, 2029. The bill extends a leasehold excise tax exemption to August 1, 2029. Furthermore, the bill creates a green transportation capital grant program to fund projects to electrify vehicle fleets and invest in infrastructure to facilitate fleet electrification. The House passed the bill in April 2019.</p>	<a href="#">H.B. 2042 (P1)</a>
	Rebate Program	<p>H.B. 1512 authorizes the governing authorities of municipal utilities and commissions of public utility districts to adopt transportation electrification plans. These utilities may offer transportation electrification programs to their customers after making a cost-</p>	<a href="#">H.B. 1512 (P2)</a>

	effectiveness determination. The bill also authorizes electric utilities regulated by the Utilities and Transportation Commission to submit a transportation electrification plan including EVSE deployment, incentives, or other services. The House passed the bill in March 2019 and the Senate passed it on April 10, 2019.	
Sales Tax Incentive	H.B. 1664 exempts EVs with a lowest manufacturer's suggested retail price of \$45,000 or less from sales tax, up to \$1,000. The bill also provides clear authority for utilities to engage in and promote the build out of EV infrastructure.	<a href="#">H.B. 1664 (I)</a>
Sales Tax Incentive, Use Tax Incentive	H.B. 1986 exempts electric bicycles from state sales and use taxes until May 1, 2025 or until \$500,000 in exemptions have been granted.	<a href="#">H.B. 1986 (I)</a>
Sales Tax Incentive, Use Tax Incentive	S.B. 5336 exempts EVs with a lowest manufacturer's suggested retail price of \$45,000 or less from the state sales and use tax. The bill also provides authority for utilities to engage in and build out EV infrastructure. The bill authorizes cities and towns engaged in the generation, sale, or distribution of energy to at least 4,000 customers to assist customers in financing equipment for transportation electrification and to offer other programs, services, and investments to promote transportation electrification. The bill allows utilities regulated by the Utilities and Transportation Commission to submit transportation electrification plans including infrastructure deployment, programs, services, and incentives.	<a href="#">S.B. 5336 (I)</a>
Use Tax Incentive	H.B. 1226 exempts carbon reduction investments from the state share of use taxes. The term carbon reduction investment includes the installation of electric vehicle chargers and related infrastructure and other transportation electrification measures	<a href="#">H.B. 1226 (I)</a>

Legislative Status Key: I = Introduced, P1 = Passed One Chamber, P2 = Passed Both Chambers, E = Enacted, D = Dead. Bill statuses are up to date as of early May 2019.

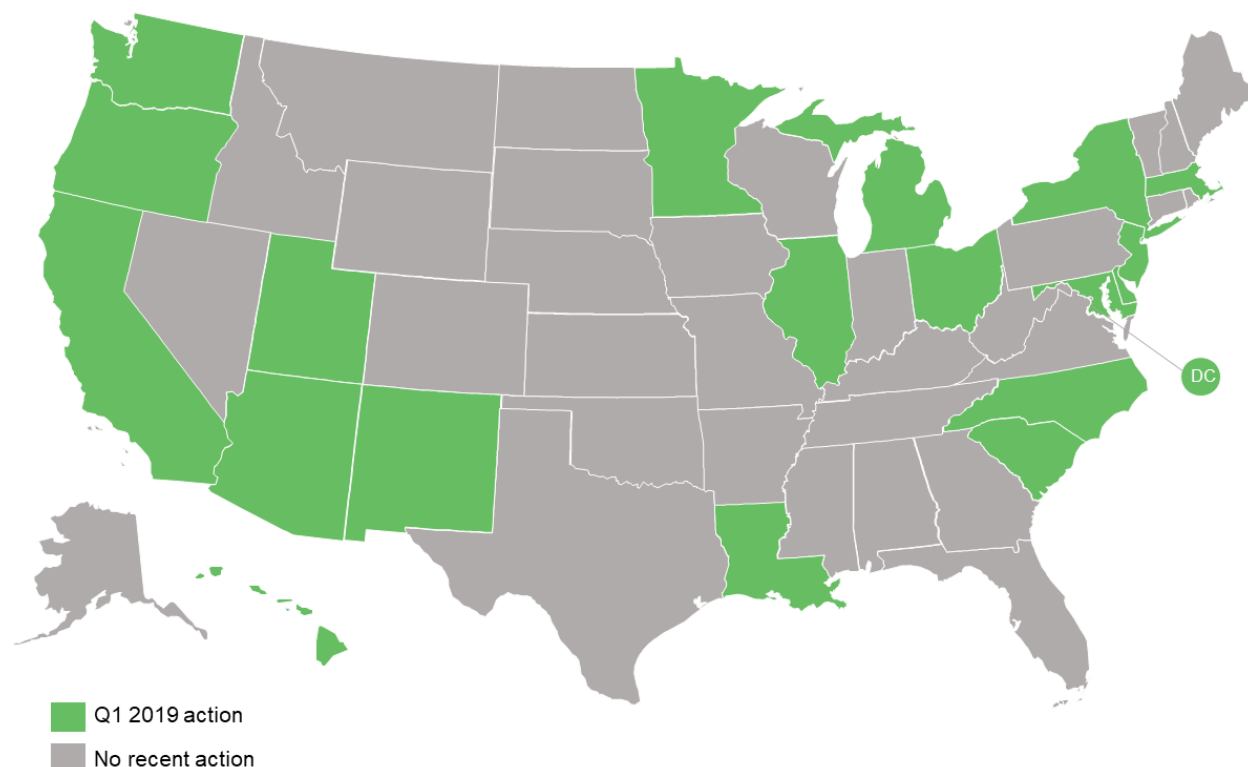
## STATE AND UTILITY DEPLOYMENT

### Key Takeaways:

- In Q1 2019, there were 44 pending or decided proposals from state legislators or utilities across 19 states plus DC to deploy electric vehicles or charging infrastructure.
- Utilities in three states – North Carolina, Oregon, and Utah – introduced new plans for the deployment of electric vehicle charging infrastructure.
- A total of approximately \$1.5 billion in utility investment in electric vehicle charging infrastructure was under consideration in Q1 2019.

The continued growth of the electric vehicle market both depends upon and necessitates increased access to charging infrastructure. Policymakers and regulators in several states are considering the role for utilities and state government entities in the deployment of charging infrastructure. During Q1 2019, policymakers or regulators in 19 states plus DC considered deployment plans for charging infrastructure. The plans under review are varied, targeting different market sectors with an array of solutions.

**Figure 17. State and Utility Deployment Action (Q1 2019)**



At least 25 utilities had specific deployment plans before their respective regulators during Q1 2019. These proposed investments total approximately \$1.5 billion, with nearly \$1 billion of this proposed in California alone. Maryland regulators approved a scaled down version of

the deployment plans for the state's four investor-owned utilities. The appropriate role for utilities in deploying charging infrastructure was an issue debated during the proceeding, with the Commission determining that utility ownership of a limited number of charging stations is appropriate in order to jumpstart the development of a public charging network.

**Table 8. Utility Electric Vehicle Charging Investment Plans Under Consideration**

State	Utility	Proposed Budget	Status
<b>Arizona</b>	Arizona Public Service	\$3.58 Million	Pending
<b>California</b>	Liberty Utilities (A.B. 1082 and 1083 Proposal)	\$4.687 Million	Pending
	Pacific Gas & Electric (A.B. 1082 and 1083 Proposal)	\$11.3 Million	Pending
	San Diego Gas & Electric (A.B. 1082 and 1083 Proposal)	\$18.8 Million	Pending
	San Diego Gas & Electric (Medium- & Heavy-Duty Program)	\$152.3 Million	Pending
	Southern California Edison (A.B. 1082 and 1083 Proposal)	\$19.77 Million	Pending
	Southern California Edison (Charge Ready 2)	\$760 Million	Pending
<b>Delaware</b>	Delmarva Power & Light	\$1.74 Million	Pending
<b>District of Columbia</b>	Pepco	\$8.933 Million	Pending
<b>Louisiana</b>	Entergy New Orleans	\$500,000	Pending
<b>Maryland</b>	Baltimore Gas & Electric	\$48.1 Million	\$8.5 Million Approved
	Delmarva Power & Light	\$12 Million	\$2.25 Million Approved
	Pepco	\$32.2 Million	\$6.2 Million Approved
	Potomac Edison	\$12.4 Million	\$3.1 Million Approved
<b>Massachusetts</b>	National Grid	\$166.5 Million	Pending
<b>Michigan</b>	DTE Energy	\$7.73 Million	Pending
<b>Minnesota</b>	Xcel Energy	\$23.6 Million	Pending
<b>New Jersey</b>	Atlantic City Electric	\$5.85 Million	Pending
	PSE&G New Jersey	\$101 Million	Pending
<b>New York</b>	Orange & Rockland	\$1 Million	Pending
<b>North Carolina</b>	Duke Energy Carolinas	\$27.4 Million	Pending
	Duke Energy Progress	\$19.4 Million	Pending
<b>Ohio</b>	Dayton Power & Light	\$7.2 Million	Pending
<b>Oregon</b>	Portland General Electric	\$25.2 Million	Pending
<b>South Carolina</b>	Duke Energy Carolinas	\$9.8 Million	Pending
	Duke Energy Progress	\$4.7 Million	Pending
<b>Utah</b>	Rocky Mountain Power	\$1.96 Million	Pending
<b>TOTAL</b>		\$1.49 Billion	\$20.5 Million Approved

The Maryland Public Service Commission reduced the number of public charging stations Baltimore Gas & Electric, Delmarva Power & Light, and Pepco may own to half of that originally proposed. The Commission approved Potomac Edison's full number of public charging stations in order to achieve a statistically significant sample. These utility-owned public charging stations may only be located on government properties. The DC Public Service Commission cited similar concerns about utility ownership and anti-competitiveness in its April 2019 decision on Pepco's transportation electrification plan, authorizing Pepco to deploy make-ready equipment only, rather than owning and operating full charging stations.

Duke Energy Progress and Duke Energy Carolinas submitted new proposals for Electric Transportation Pilot programs in North Carolina, both of which include a mix of Level 2 and DC fast charging deployments at multi-family properties, transit bus locations, and public destination locations. Duke Energy also amended its proposals in South Carolina based on stakeholder feedback by increasing the budgets for both utilities' electric school bus and DC fast charging programs.

Policymakers also considered at least 25 bills directly related to the deployment of charging equipment during Q1 2019. The New Mexico State Legislature enacted H.B. 521 in early April 2019, which directs public utilities to file applications for transportation electrification programs by January 1, 2021. In May 2019, the Governor of Washington signed H.B. 1512 into law, authorizing utilities to file transportation electrification plans.

**Table 9. Updates on State and Utility Deployment (Q1 2019)**

State	Utility	Technology	Description	Source
AZ	Arizona Public Service	Charging Infrastructure (Bus Charging, Level 2), Electric Buses	<p>As part of Arizona Public Service's (APS) 2018 Demand-Side Management Plan, filed in September 2017, the utility proposed a new Managed EV Charging Pilot Program. APS would own and manage charging stations deployed through this program at fleets, workplaces, and multi-family housing communities. APS would be able to schedule the charging of EVs at these stations in a way that avoided peak hours. The proposed budget for the pilot program is \$1.33 million. Participating customers would repay funds used to purchase the charging stations over ten years, less a \$750 incentive.</p> <p>The utility also proposed a new School Bus EV Pilot Program. Under the program, APS would provide a limited number of Electric buses and charging infrastructure for free to participating school districts, selected through a lottery. The proposed budget for the program is \$2.25 million. APS will work with participating schools to manage charging.</p> <p>In early July 2018, Commissioner Olson requested that APS submit the Ratepayer Impact Measure and savings during peak for each program.</p>	<a href="#">Docket No. E-01345A-17-0134</a>
	All IOUs	Charging Infrastructure (Level 2 or 3)	<p>In August 2016, Arizona Corporation Commission Chairman Little opened a docket to review, modernize, and expand Arizona's Renewable Energy Standard and Tariff. In late January 2018, Commissioner Tobin filed his proposed Energy Modernization Plan. The plan would rename the state's Renewable Energy Standard and Tariff to the Clean Resource Energy Standard and Tariff and require that 80% of the state's electricity generating portfolio be comprised of clean resources by 2050, in addition to other changes. The proposed plan would require utilities to include EV charging infrastructure deployment as part of their CREST implementation plans. In February 2018, the Commission Staff issued a Notice of Inquiry, soliciting comments on many specific questions related to</p>	<a href="#">Docket No. E-00000Q-16-0289</a>  <a href="#">Proposed Energy Modernization Plan</a>  <a href="#">Notice of Inquiry</a>  <a href="#">Draft Rules</a>



		<p>Commissioner Tobin's proposal. In early July 2018, Commissioner Tobin filed a formal set of draft rules implementing his proposed Energy Modernization Plan. Later in July, several Commissioners expressed support for opening a new rulemaking docket to consider changes to the state's Renewable Energy Standard and Commissioner Tobin's Energy Modernization Plan. In August 2018, the Commission opened a rulemaking docket to evaluate modification to several different energy rules (see Docket No. RU-00000A-18-0284).</p>	
All IOUs	Charging Infrastructure (Level 2 & 3)	<p>In August 2018, the Arizona Corporation Commission (ACC) opened a rulemaking docket to evaluate proposed modifications to many of the state's energy rules. Among the rules to be addressed are those pertaining to EVs. In December 2018, the ACC Staff filed the draft policy statement, which encourages regulated utilities to invest in infrastructure and develop programs to support EV charging and transportation electrification. Specifically, the policy statement encourages utilities to consider deploying charging infrastructure in low utilization areas (such as rural and low-income areas, multi-unit dwellings, interstate corridors and highways) and permits these investments in their rate base; encourages utilities to adopt pilot programs to obtain data on infrastructure deployment, charging patterns, and the need for rate designs and incentives; directs utilities to include EV considerations in integrated resource plans; encourages utilities to redeploy used EV batteries for a secondary use; directs utilities to work with non-regulated entities to identify locations where joint investment and ownership in charging infrastructure may be appropriate; and directs the ACC Staff to continue stakeholder engagement efforts related to EVs. Later in December, the ACC Staff filed an amendment to its proposed policy statement, specifying that only prudent costs for EV charging stations may be included in the rate base. The ACC adopted the Staff's EV policy statement in January 2019.</p>	<p><a href="#">Docket No. RU-00000A-18-0284</a></p> <p><a href="#">Decision No. 77044 (Electric Vehicle Policy Statement)</a></p> <p><a href="#">Draft Implementation Plan</a></p>

			<p>A stakeholder meeting was March 2019 to discuss implementation of the EV policy statement. Stakeholders filed comments following the meeting, addressing a variety of issues. Chargepoint discussed the power of make-ready programs. Arizona Public Service stated its support for the policy statement and expressed its willingness to work with stakeholders. The ACC Staff filed a draft implementation plan for the EV policy statement in late March 2019, which provides guidelines to regulated utilities on how to best implement the policy. The implementation plan encourages utilities to propose pilot programs by June 1, 2019, focusing on infrastructure deployment, charging patters, fleet charging, make-ready infrastructure, rate design, incentives, and customer education. Cost recovery for approved pilot programs will be addressed in rate cases. The plan encourages utilities to explore deployment in areas of inadequate coverage and directs utilities to include EV infrastructure plans, needs, and costs in integrated resource plans.</p>	
CA	All IOUs	Charging Infrastructure (Level 2 or 3)	<p>A.B. 983 requires utilities to work with local agencies or regional planning agencies in their service territories with responsibility for planning EV deployment to determine where to install new electrical charging stations along local transit corridors. The bill further authorizes utilities to file an application with the Public Utilities Commission (PUC) by December 31, 2020, with the support of the local or regional planning agency, for the identified infrastructure investments at transit corridor entry and exit points or other locations, giving priority to disadvantaged communities. The bill also requires the PUC to review and decide whether to approve an application filed by a utility and supported by the local or regional planning agency. The bill also authorizes a utility to propose a cost allocation methodology that allocates costs in a reasonable manner and would require the PUC to approve the cost allocation methodology if the commission finds that the application would minimize overall costs and maximize overall benefits and is in the interests of ratepayers.</p>	<a href="#">A.B. 983 (I)</a>

All IOUs	Charging Infrastructure (Level 2 & 3)	In December 2018, the California Public Utilities Commission opened a broad rulemaking proceeding related to transportation electrification. Among the issues to be addressed in the proceeding are a common transportation electrification framework to review utility programs and investments, cost recovery of transportation electrification investments, appropriate ownership models for different types of transportation electrification investments, expanding access to transportation electrification to disadvantaged and low-income communities, development and adoption of vehicle-grid integration policies and technologies, and safety and cybersecurity concerns. A prehearing conference was held in March 2019.	<a href="#">Docket No. R-18-12-006</a>
Liberty Utilities	Charging Infrastructure (Level 2 & 3)	A.B. 1082 and A.B. 1083, both enacted in 2017, authorize the state's IOUs to file applications with the California Public Utilities Commission (CPUC) for pilot programs to support the installation of EV charging infrastructure at schools and other educational facilities (A.B. 1082) and state parks and beaches (A.B. 1083). Liberty Utilities filed an application in July 2018 for a \$4.687 million pilot, which includes the installation of 56 Level 2 chargers and 2 DC fast chargers at 17 school facilities, and 10 Level 2 chargers at 3 state parks and beaches, plus additional chargers at 10 city and county parks. The CPUC hosted a prehearing conference in early October 2018. The CPUC issued a scoping ruling in December 2018, and utilities filed opening briefs in Q1 2019.	<a href="#">Docket No. A-18-07-025</a>
N/A	Charging Stations (Heavy-Duty Vehicles)	A.B. 1594 requires the State Air Resources Board to ensure at least 2 electric vehicle charging stations for heavy-duty vehicles are installed at each of the Ports of Long Beach, Los Angeles, and Oakland.	<a href="#">A.B. 1594 (I)</a>
Pacific Gas & Electric	Charging Infrastructure (Level 2 & 3)	A.B. 1082 and A.B. 1083, both enacted in 2017, authorize the state's IOUs to file applications with the California Public Utilities Commission (CPUC) for pilot programs to support the installation of EV charging infrastructure at schools and other educational facilities (A.B. 1082) and	<a href="#">Docket No. A-18-07-020</a>

		state parks and beaches (A.B. 1083). PG&E filed an application in July 2018 for an \$11.3 million pilot. The CPUC hosted a prehearing conference in early October 2018. The CPUC issued a scoping ruling in December 2018, and utilities filed opening briefs in Q1 2019.	
San Diego Gas & Electric	Charging Infrastructure (Level 2 & 3)	A.B. 1082 and A.B. 1083, both enacted in 2017, authorize the state's IOUs to file applications with the California Public Utilities Commission (CPUC) for pilot programs to support the installation of EV charging infrastructure at schools and other educational facilities (A.B. 1082) and state parks and beaches (A.B. 1083). SDG&E filed an application in July 2018 for a \$18.8 million pilot, which includes the installation of 184 Level 2 chargers and 12 DC fast chargers at 30 school facilities, and 74 chargers at 12 state parks and beaches, plus additional chargers at 10 city and county parks. The CPUC hosted a prehearing conference in early October 2018. The CPUC issued a scoping ruling in December 2018, and utilities filed opening briefs in Q1 2019.	<a href="#">Docket No. A18-07-023</a>
San Diego Gas & Electric	Charging Infrastructure (Level 2 & 3), Medium Duty, Heavy Duty	While the California Public Utilities Commission (CPUC) explored San Diego Gas & Electric's (SDG&E) Transportation Electrification Standard Review proposal in Docket No. A. 17-01-020, SDG&E filed a new application in January 2018 for two additional Standard Review projects, totaling \$152.3 million. The proposed Medium-Duty/Heavy-Duty EV Charging Infrastructure Program would target charging equipment for approximately 3,100 for Class 2-8 EVs, such as forklifts and transport refrigeration units. The Vehicle-to-Grid pilot program would utilize ten electric school buses as distributed energy resources. The vehicles will charge during the day and discharge to bid into the CAISO market when called upon in the late afternoon and evenings to provide system level grid services. Data would be collected for one year to examine the costs, benefits, and scalability of vehicle-to-grid. Several parties protested the application, arguing that the CPUC should delay the review of this application until the projects from Docket No. A. 17-01-020 are complete	<a href="#">Docket No. A. 18-01-012</a>

		<p>and have been assessed. A scoping memo and ruling filed in March 2018 denied the protests and agreed to hear this application on its own merits. SDG&amp;E filed a motion to suspend the procedural schedule in September 2018. In its motion, SDG&amp;E explained that it reached an agreement in principle on terms for a settlement with many of the active parties. The developing settlement includes a revised proposal, so SDG&amp;E argues that it would be unproductive to prepare testimony for a proposal that will soon be substantially revised. In a September ruling, the Commission granted SDG&amp;E's request to suspend the procedural schedule. A settlement agreement was filed in November 2018. The settlement agreement features some significant changes to the Medium-Duty/Heavy-Duty Program. Notably, the settling parties agree that SDG&amp;E will only own and operate the make-ready infrastructure on the utility's side of the meter, rather than the actual charging equipment. The budget for the program was also reduced from \$150.1 million to \$107.4 million. The settlement agreement does not make any significant changes to the Vehicle to Grid program. Comments on the settlement agreement were filed in early December 2018. A prehearing conference was held in February 2019.</p>	
<p>Southern California Edison</p>	<p>Charging Infrastructure (Level 2 &amp; 3)</p>	<p>Following its Charge Ready Pilot Program in 2016, Southern California Edison (SCE) applied for approval of its Charge Ready 2 Program in June 2018. The four-year \$760 million program includes a mix of direct deployment of infrastructure and rebates to support a total of 48,000 EV charging stations for light-duty vehicles. The utility plans to deploy equipment in two of the component programs, Make-Ready Infrastructure Expansion, and SCE Own and Operate. The Make-Ready Infrastructure Expansion program also includes rebates for customers who purchase the equipment, and will target workplaces, multi-unit dwellings, destination centers, governmental locations and fleets. The Own and Operate program will target just multi-unit dwellings and governmental locations. SCE's application also includes a</p>	<p><a href="#">Docket No. A.18-06-15</a> <a href="#">Application</a></p>

			<p>proposed schedule, ending with a final decision in June 2019. The California Public Utilities Commission hosted a prehearing conference in September 2018. A scoping ruling issued in October 2018 established the issues to be considered in the proceeding and the schedule through April 2019. An Evidentiary Hearing was held in January and February 2019.</p>	
	Southern California Edison	Charging Infrastructure (Level 2 & 3)	<p>A.B. 1082 and A.B. 1083, both enacted in 2017, authorize the state's IOUs to file applications with the California Public Utilities Commission (CPUC) for pilot programs to support the installation of EV charging infrastructure at schools and other educational facilities (A.B. 1082) and state parks and beaches (A.B. 1083). SCE filed an application in July 2018 for a two-year \$19.77 million pilot, which includes the deployment of infrastructure and rebates to support approximately 250 ports at Level 1 and Level 2 charging stations located at 40 K-12 schools and approximately 120 Level 2 charging ports, 10 DCFC ports and 15 mobile EV charging stations at 27 state parks and beaches. The CPUC hosted a prehearing conference in early October 2018. The CPUC issued a scoping ruling in December 2018, and utilities filed opening briefs in Q1 2019.</p>	<p><a href="#">Docket No. A18-07-022</a></p>
DC	Pepco	Charging Infrastructure (Bus Charging, Level 2, Level 3)	<p>In April 2017, Pepco filed a proposal to implement a new plug-in vehicle program. Part of this program would include deployment of up to four public direct current fast chargers, owned by Pepco. Users would pay per kWh and could potentially pay an adder to receive 100% renewable energy. In October 2017, the Public Service Commission issued an order, moving the proceeding into the existing Modernizing the Distribution Energy System for Increased Sustainability (MEDSIS) docket (Formal Case 1130). PEPCO hosted EV workshops in April, May, and June 2018. PEPCO used the workshops to present a revised EV program proposal and to receive input from stakeholders on several issues including: operational and policy considerations, outreach and education, increasing EV penetration for broader and</p>	<p><a href="#">Formal Case No. 1143</a></p> <p><a href="#">Formal Case No. 1130</a></p> <p><a href="#">Formal Case No. 1155</a></p> <p><a href="#">Transportation Electrification Program</a></p> <p><a href="#">Order</a></p>

			<p>more diverse populations, and addressing barriers to EV penetration in all quadrants of DC.</p> <p>In September 2018, PEPCO filed an application for approval of its Transportation Electrification Program. The program consists of 13 offerings, including a mix of incentives, rates and direct deployment of charging infrastructure. Specifically, the proposal includes the company installing up to 35 public smart Level 2 charging stations throughout the District, 20 public DC fast chargers throughout the District, up to 10 Level 2 chargers in each location to serve fleet vehicles in at least two locations, up to 10 Level 2 chargers and two DCFCs at least two customer-determined locations for the benefit taxi/rideshare services, and five bus depot chargers and one on-route bus charger for city buses.</p> <p>An April 2019 order from the Commission granted in part and denied in part Pepco's Transportation Electrification Program. Specifically, the order directed Pepco to provide "make-ready" infrastructure for its deployment programs rather than Pepco owning all the charging equipment itself. On that condition, the Commission approved Pepco's deployment programs with the exception of its program for fleets. The order also determined that Pepco can only sell electricity from an EV charging station through an affiliate. The order also opened a new docket (Formal Case No. 1155) to continue working on Pepco's Transportation Electrification Program.</p>	
DE	Delmarva Power and Light	Charging Infrastructure (Level 2 & 3)	<p>In October 2017, Delmarva Power &amp; Light filed a proposal to implement a new \$1.74 million plug-in vehicle program. Part of this program would include deployment of two public direct current fast chargers, owned by Delmarva, along main transportation corridors. The program would also include deployment of two public level 2 charging stations in neighborhoods within Delmarva's service territory. These level 2 charging stations would also be owned by Delmarva and would provide electricity from renewable energy sources. In June 2018, Delmarva informed the parties that its parent company, Exelon, had engaged</p>	<p><a href="#">Docket No. 17-1094</a></p> <p><a href="#">Gabel Report</a></p>



			<p>a consultant earlier in the year to study issues related to EVs in its various jurisdictions, and requested to have the study (The Gabel Report) entered into the record, and to have the evidentiary hearings postponed to give all parties the opportunity to review the study. In July 2018, the Division of the Public Advocate and the Commission Staff filed a joint motion to stay Delmarva's application until the earlier of June 30, 2019 or the date that a statute deregulating EV charging stations becomes effective. After some back and forth, the Commission voted in August 2018 to deny the motion to stay, and a September order asked parties to agree upon a new procedural schedule to provide for discovery upon the Gabel Report. Delmarva, the Public Advocate, and the Commission Staff filed a settlement agreement in January 2019, agreeing to all aspects of the program. An April Hearing Examiner's Report recommends approving the settlement agreement.</p>	
HI	Hawaiian Electric Companies	Charging Infrastructure (Level 2 & 3), Fleet Vehicles	<p>A June 2017 Public Utilities Commission order required the HECO companies to develop an Electrification of Transportation Strategic Roadmap. HECO submitted its roadmap in March 2018, which describes a number of activities that could accelerate the adoption of EVs, including: (1) lowering costs and educating customers, (2) accelerating the buildout of EV charging infrastructure, (3) supporting the electrification of buses and other heavy equipment, (4) incentivizing EV charging, and (5) coordinate with ongoing grid modernization planning efforts. The Commission opened a new proceeding (2018-0135) in June 2018 to serve as a repository for the Roadmap and accepted comments on the Roadmap during Q3 2018. In November 2018, HECO filed an addendum to its Strategic Roadmap. The original roadmap provided economic analysis of electrification of transportation in its service territories using light-duty vehicles on Oahu as an initial case study. The addendum provides economic analysis on additional islands. No action occurred during Q1 2019.</p>	<p><a href="#">Docket No. 2018-0135</a></p> <p><a href="#">Docket No. 2016-0168</a></p> <p><a href="#">Electrification of Transportation Strategic Roadmap</a></p> <p><a href="#">Roadmap Addendum</a></p>

IL	N/A	Charging Infrastructure (Level 2 or 3)	H.B. 2826 removes a current requirement that the Illinois State Toll Highway Authority construct and maintain an EV charging station at every location where it has located a motor fuel service station.	<a href="#">H.B. 2826 (I)</a>
LA	Entergy New Orleans	Charging Infrastructure (Level 2)	As part of Entergy New Orleans' general rate case, filed in September 2018, the utility proposed two EV charging programs. The first program would involve Entergy installing, owning, and operating EV charging stations on non-residential customers' properties. Participating customers would pay a fixed charge each month for use of the infrastructure. The second program involves Entergy installing, owning, and operating EV charging stations for public use at a handful of public locations in the city. Entergy has proposed investing \$500,000 for this second program and does not plan to charge for use of the public charging stations for at least the first one to two years.	<a href="#">City Council Docket No. 18-07</a>
MA	National Grid	Charging Infrastructure (Level 2 & 3)	In November 2018, National Grid filed a general rate case, which includes a proposed Phase II Electric Vehicle Market Development Program. The program includes three offerings - Level 2 Residential, Level 2 Non-Residential, and DCFC sites. The non-residential offering will provide customers with two options for EVSE installation: purchasing and managing the charging station (customer-owned option) or having National Grid own and operate the charging station (company-owned option). Customer selecting the company-owned option will contribute toward the upfront cost and ongoing operation and maintenance costs. National Grid is aiming for 10% of charging sites developed to be in disadvantaged communities and will cover up to 100% of the cost for these participants. The estimated budget for the non-residential program is \$110 million. Finally, the DCFC offering will involve the utility deploying charging infrastructure and providing rebates for charging equipment, with a focus on highway and retail locations, public transit sites, and school bus sites. The rate case also includes a performance-based ratemaking (PBR) plan, which would replace the	<a href="#">Docket No. 18-150</a>

			<p>capital investment recovery mechanism. National Grid proposed four performance incentive mechanisms, including electric vehicle adoption (measured by increased electric vehicle adoption in the utility's service territory above forecasted business as usual) and electric vehicle supply equipment cost containment (measured by cost-efficient delivery of charging ports in the proposed Phase II Electric Vehicle program).</p> <p>Parties filed testimony in March 2019. The Attorney General recommends deferring Phase II of the program until sufficient data on Phase I is available, removing the option for utility ownership of charging stations, and allocating more of the funding for public interest-oriented market segments. The Attorney General also recommends a coordinated statewide analysis of workplace charging needs. Chargepoint generally endorses the most of the program components and recommends some modifications to the non-residential DCFC programs. Chargepoint recommends rejecting the pricing proposal, though, and clarifying that site hosts can determine the price for EV charging services, regardless of whether stations are customer or company owned.</p>	
MD	All IOUs	Charging Infrastructure (Level 2 & 3)	<p>In January 2018, the EV working group filed a proposal for the Public Service Commission (PSC) to open a new proceeding to consider a statewide electric vehicle portfolio. The proposed portfolio would include residential, non-residential, public, innovation, and technology sub-portfolios for each service territory. The residential sub-portfolio includes smart level 2 charging station rebates, (all utilities), EV whole-house TOU rates (all utilities except Potomac Edison), smart level 2 charging station rebates with EV-only rate design components (Delmarva and Pepco), and FleetCarma non-rate incentives for off-peak charging (Delmarva and Pepco). The non-residential sub-portfolio includes incentives for multifamily/multi-unit dwellings (all utilities), incentives for workplace charging (all utilities), incentives for fleets (all utilities except</p>	<p><a href="#">Case No. 9478</a></p> <p><a href="#">Public Conference No. 44</a></p>

Potomac Edison), and incentives for public-facing commercial and industrial locations (Baltimore Gas & Electric and Potomac Edison). The public sub-portfolio includes incentives for public level 2 smart chargers (all utilities) and incentives for public DC fast charging (all utilities). The innovation sub-portfolio includes grants for innovative ideas to serve multiple users and/or multiple tenant applications (all utilities except Potomac Edison). The technology demonstration sub-portfolio includes a demonstration project pairing a cluster of DC fast chargers with an energy storage device (Delmarva and Pepco). One of Potomac Edison's DC fast charging public locations will include an energy storage system; this will be a part of the utility's public sub-portfolio, rather than a separate technology sub-portfolio. Baltimore Gas & Electric proposed a managed charging demonstration program that would be part of its public sub-portfolio.

The Office of the People's Counsel (OPC) filed a letter later in January, requesting that the PSC go through the full evidentiary process to investigate this proposal. In February 2018, the PSC opened a new proceeding (Case No. 9478). The PSC held an initial legislative-style hearing in May 2018. The hearing addressed the current state of EVs in the state, the potential growth of EVs in the state, the potential benefits and costs of increasing Maryland's ability to integrate more EVs, how the working group's proposal fits into the current and potential growth of EVs in the state, and the proper role of utility investment in EV infrastructure. The PSC held another legislative-style hearing in September 2018. The Commission issued an order in January 2019, approving in part and denying in part the utilities' proposals. In lieu of concerns over utility ownership potentially stifling private sector investment in charging infrastructure, the order allows Baltimore Gas & Electric, Delmarva Power & Light, and Pepco to install, own, and operate approximately half of the EV chargers proposed under their respective sub-portfolios. Potomac Edison, however, is authorized to proceed

			with its full deployment plan in order to establish a statistically significant sample size compared to the other utilities. The order further stipulates that the utilities must locate the charging equipment only at property leased, owned, or occupied by a unit of State, county, or municipal government for public use and work with these government entities to determine the best locations for them.	
MI	DTE Energy	Charging Infrastructure (Level 2)	In its most recent rate case, filed in July 2018, DTE requested cost recovery for a new electric vehicle program, Charging Forward. The three primary components of the Charging Forward program include customer education and outreach, residential smart charger support, and charging infrastructure enablement. The program would be implemented over three years at a cost of \$13 million. The residential smart charger support component of the program would provide a rebate of up to \$500 to ~2,800 residential customers who own an EV and install a qualified “smart” Level 2 charger. The charging infrastructure enablement component of the program would involve the utility contributing the costs for make-ready equipment up to the meter, and provide a fixed rebate to customers for the installation of EV supply equipment (after-the-meter, including panel, conduit, and wiring). Site hosts will be responsible for the purchase, operation, and maintenance of the EV charging station. A proposal for decision was filed in early March 2019. The proposal for decision adopts the Commission Staff’s proposal for an expanded School Bus Pilot Program. The proposal for decision does not adopt the Staff’s proposal for an 80 Amp Charging Pilot. The proposal for decision also increases the Charging Forward program budget by \$6 million, as proposed by the Commission Staff, and approves the regulatory asset treatment for Charging Forward deferred costs. DTE is to examine whether there would be cost savings if a tracker were used for future rebate programs.	<a href="#">Docket No. U-20162</a>
MN	N/A	Charging Infrastructure (Level 2 or 3)	H.F. 1737 and S.F. 1905 appropriate \$8 million in fiscal year 2020 to the Department of Transportation to install	<a href="#">H.F. 1737 (I)</a> <a href="#">S.F. 1905 (I)</a>

		public EVSE throughout the state. No more than 40% of the appropriation may be used for equipment installation within the seven-county metropolitan area. No more than 10% of the appropriation may be devoted to equipment with a maximum charging capability of less than 150 kW.	
N/A	Charging Infrastructure (Level 2 or 3)	H.F. 1853 and S.F. 1904 appropriate \$10 million in fiscal year 2020 to the commissioner of the Pollution Control Agency to support the development of supply equipment for public EVs. No more than 10% of this appropriation may be devoted to equipment with a maximum charging capability of less than 150 kW.	<a href="#">H.F. 1853 (I)</a> <a href="#">S.F. 1904 (I)</a>
N/A	Charging Infrastructure (Level 2 or 3)	H.F. 2022 and S.F. 2061 appropriate \$4.1 million to the commissioner of natural resources to install EV charging stations in state and regional parks. The commissioner will issue a request for proposals to find entities to install the equipment.	<a href="#">H.F. 2022 (I)</a> <a href="#">S.F. 2061 (I)</a>
N/A	Electric Buses	H.F. 1755 and S.F. 2473 appropriate \$4.1 million to the Metropolitan Council to defray the cost of purchasing electric buses. Until the appropriation runs out, any bus purchased by the Metropolitan Council must operate solely on electricity provided by rechargeable on-board batteries.	<a href="#">H.F. 1755 (I)</a> <a href="#">S.F. 2473 (I)</a>
Northern States Power Company d/b/a Xcel Energy	Charging Infrastructure (Level 2)	In October 2018, Xcel Energy filed a petition for approval of two EV pilot programs. The filing also discusses five forthcoming EV initiatives. The first EV pilot is a \$14.4 million, three-year Fleet EV Service Pilot. The second EV pilot is a \$9.2 million, three-year Public Charging Pilot. Both pilots involve Xcel Energy installing and maintaining EV charging infrastructure. The Fleet EV Service Pilot will also study charging behavior. The planned initiatives that will be proposed in the coming months include a residential EV subscription service pilot, a residential smart charging pilot, a workplace smart charging pilot, and a vehicle-to-grid demonstration with school buses. Parties filed comments in January and February 2019.	<a href="#">Docket No. 18-643</a>

NC	Duke Energy Carolinas	Charging Infrastructure (Level 2 & 3)	<p>In late March 2019, Duke Energy Carolinas (DEC) filed a proposal for \$27.4 million in charging infrastructure investments as part of its Electric Transportation Pilot program. In addition to incentives, the three-year pilot program includes the deployment of utility-owned charging equipment at multi-family properties, and Level 2 and DCFC equipment for public use. Through the transit bus program, DEC will deploy 60 utility-owned charging stations for EV transit buses. DEC will also deploy 100 charging stations at multi-family dwellings. The utility will collect a charging fee based on the marginal energy component of the applicable Company's currently approved Small General Service schedule, plus \$0.02/kWh to cover network platform and transaction fees. DEC will also deploy 100 Level 2 charging stations at key public destination locations, and will collect the same charging fee as the multi-family program. Lastly, DEC will deploy a network of up to 70 fast chargers across approximately 35 individual locations. The utility will charge users a fee consistent with the statewide average for fast charging offered by those stations that charge a fee to the driver and are publicly accessible 24-hours per day. The Commission is accepting comments on the proposal through July 5, 2019 and reply comments through July 19, 2019.</p>	<a href="#">Docket No. E-7 Sub 1195</a>
	Duke Energy Progress	Charging Infrastructure (Level 2 & 3)	<p>In late March 2019, Duke Energy Progress (DEP) filed a proposal \$19.4 million in charging infrastructure investments as part of its Electric Transportation Pilot program. In addition to incentives, the three-year pilot program includes the deployment of utility-owned charging equipment at multi-family properties, and Level 2 and DCFC charging equipment for public use. Through the transit bus program, DEP will deploy 45 utility-owned charging stations for EV transit buses. DEP will also deploy 60 charging stations at multi-family dwellings. The utility will collect a charging fee based on the marginal energy component of the applicable Company's currently approved Small General Service schedule, plus \$0.02/kWh to cover network platform and transaction fees.</p>	<a href="#">Docket No. E-2 Sub 1197</a>



			<p>DEP will also deploy 60 Level 2 charging stations at key public destination locations and will collect the same charging fee as the multi-family program. Lastly, DEP will deploy a network of up to 50 fast chargers across approximately 25 individual locations. The utility will charge users a fee consistent with the statewide average for fast charging offered by those stations that charge a fee to the driver and are publicly accessible 24-hours per day. The Commission is accepting comments on the proposal through July 5, 2019 and reply comments through July 19, 2019.</p>	
NJ	All IOUs	Charging Infrastructure (Level 3)	<p>A.B. 2719 and S.B. 717 direct public agencies (including the Department of Transportation, Department of Environmental Protection, New Jersey Turnpike Authority, and South Jersey Transportation Authority) to develop a pilot program and related guidelines for a Level 3 EV charging pilot program. "Level 3 charging" is defined as "providing a 480 volt alternating current to plug-in electric vehicle." The pilot program would involve electric and gas public utilities and private fuel station providers; it would result in the development of level 3 charging infrastructure within 18 months of bill passage.</p>	<p><a href="#">A.B. 2719 (I)</a> <a href="#">S.B. 717 (I)</a></p>
	Atlantic City Electric	Charging Infrastructure (Level 2 & 3)	<p>In February 2018, Atlantic City Electric requested approval of a Plug-In Vehicle Program. The proposed program includes a combination of financial incentives, new rate structures, and direct deployment. As part of the program, Atlantic City Electric plans to deploy up to 30 DC fast charging stations at a cost of \$3.6 million. The utility plans to own and maintain the stations, which will be located along a public charging corridor. The stations will also provide electricity from 100% renewable energy resources. The utility also plans to evaluate opportunities to pair some of these stations with energy storage. Atlantic City Electric also plans to install 150 Level 2 charging stations for public charging at a cost of \$2.25 million. Like the fast charging stations, these Level 2 stations will also be owned and maintained by the utility and provide electricity from 100% renewable energy resources.</p>	<p><a href="#">Atlantic City Electric Filing (Docket No. E018020190)</a></p>

N/A	Charging Infrastructure (Level 2 or 3)	A.B. 2718 and S.B. 718 create an alternative fueling station pilot program for government-owned and privately-owned vehicles. The program is to include deployment of at least one fueling station in each of the state's three regions, with at least one being an electric vehicle charging station.	<a href="#">A.B. 2718 (I)</a> <a href="#">S.B. 718 (I)</a>
N/A	Charging Infrastructure (Level 3)	A.B. 1445 directs turnpike authorities in the state to install level 3 charging stations for EVs. Service areas with more than 100 parking spots would need to have EVSE installed in a minimum of 5% of spaces. The bill was introduced in January 2018. In March 2018, the Transportation Committee amended the bill to specify that installation of the EVSE should be paid for by private sources or money from the Volkswagen settlement.	<a href="#">A.B. 1445 (I)</a>
N/A	Charging Infrastructure (Level 2 or 3)	A.B. 3363 and S.B. 1991 create an alternative fueling station pilot program for government-owned and privately-owned vehicles. The program is to include deployment of at least one fueling station in each of the state's three regions, with at least one being an EV charging station.	<a href="#">A.B. 3363 (I)</a> <a href="#">S.B. 1991 (I)</a>
N/A	Charging Infrastructure (Level 2 & 3)	A.B. 3687 and S.B. 2252, introduced in March 2018, establish a statewide public PEV charging system plan for the installation of 600 public DC fast-chargers and 300 Level 2 chargers across the state by December 31, 2020. The bill dictates that a working group, including the Board of Public Utilities, the Department of Environmental Protection, the Department of Transportation, the New Jersey Transit Corporation, the New Jersey Turnpike Authorities, and the Department of Community Affairs, would develop and implement the plan.	<a href="#">A.B. 3687 (I)</a> <a href="#">S.B. 2252 (I)</a>
PSE&G New Jersey	Charging Infrastructure (Level 2 & 3)	In September 2018, PSE&G New Jersey filed its proposed Clean Energy Future plan, including investments in energy efficiency, electric vehicles, energy storage, and AMI. The Board of Public Utilities directed PSE&G to make separate filings for each of its proposed Clean Energy Future programs, which the utility filed in October 2018. The Clean Energy Future - Electric Vehicle and Energy Storage program includes a total	<a href="#">PSE&amp;G Regulatory Filings (Docket No. EO18101111)</a>

			investment of \$261 million in EV programs. The Level 2 Mixed-Use Charging subprogram (\$39 million) involves PSE&G deploying electrical infrastructure for multifamily residences, workplaces, fleets, municipalities, overnight lodging facilities, and others. The Public DC Fast Charging subprogram (\$62 million) involves PSE&G deploying infrastructure and either owning or providing financial incentives towards the charging equipment. At five DC fast charging sites, PSE&G will also deploy integrated energy storage in order to enable charging at sites where the level of utility service does not support the needed infrastructure and to evaluate how integrated energy storage affects the project economics.	
NM	All IOUs	Charging Infrastructure (Level 2 & 3)	H.B. 521 and S.B. 336 direct public utilities to file applications to expand transportation electrification by January 1, 2021. These applications may include investments or incentives for charging infrastructure deployment, rate designs, and customer education and outreach programs. Utilities undertaking transportation electrification activities approved by the Commission will have the option of recovering costs through a rider, base rates, or both. The Governor signed the bill into law in early April 2019.	<a href="#">H.B. 521 (E)</a> <a href="#">S.B. 336 (D)</a>
NY	Consolidated Edison	Charging Infrastructure (Level 3)	On January 31, 2019, Consolidated Edison (ConEd) filed a general rate case. In the rate case, ConEd proposes installing interconnections with third party-owned fast charging stations. A technical and procedural conference took place on March 13, 2019. ConEd filed a preliminary update in April 2019. Initial testimony is due by May 24, 2019.	<a href="#">Docket No. 19-E-0065</a>
	Orange and Rockland Utilities	Charging Infrastructure (Level 2 & 3)	As part of Orange and Rockland's general rate case, filed in January 2018, the utility proposed a new program to own, operate, and deploy both Level 2 EV chargers and DC fast chargers at non-residential customer locations. The proposed budget is approximately \$1 million over three years (\$336,000 per year). A joint proposal was filed in early November 2018, which includes the charger deployment measures. Parties filed reply	<a href="#">Docket No. 18-00253/18-E-0067</a>

			statements arguing for and against the joint proposal in early December 2018, and an evidentiary hearing was held in December as well. In March 2019, the Commission issued an order approving the settlement agreement (joint proposal).	
OH	Dayton Power & Light	Charging Infrastructure (Level 2 & 3)	In December 2018, Dayton Power & Light (DP&L) filed its Distribution Infrastructure Modernization Plan. As part of the plan, DP&L also intends to install, own, and operate 40 to 50 Level 2 and DC fast charging stations over a three-year period. DP&L is proposing to recover costs associated with the plan through its existing SmartGrid Rider with quarterly true-ups.	<a href="#">Docket No. 18-1875-EL-GRD</a>
OR	Portland General Electric	Charging Infrastructure (Level 2)	Following its approval for three EV pilot programs in 2018, Portland General Electric filed an application for approval of two additional pilot programs in February 2019. One of the pilot programs involves the utility owning, operating, and maintaining the distribution infrastructure, the make-ready infrastructure, and the EV charging equipment for public transit agencies electrifying their fleets.	<a href="#">Docket No. UM 2003</a>
SC	Duke Energy Carolinas	Charging Infrastructure (Level 3)	In October 2018, Duke Energy Carolinas filed an application for a \$7.1 million, three-year electric transportation pilot program. The proposed pilot includes a DC fast charging program, where Duke Energy would own and operate up to 20 DC fast charging stations. In December 2018, the Office of Regulatory Staff requested that the Commission hold the comment period and further action in abeyance to allow the opportunity for a stakeholder process. Stakeholders met twice in 2019 and in April 2019, the Office of Regulatory Staff filed a report on the stakeholder process with recommendations for the proposed programs. Duke Energy Carolinas filed an amended application based on the stakeholder recommendations. The revised application includes higher budgets for the EV School Bus Program and the DC Fast Charging Program, bringing the total budget to \$9.8 million.	<a href="#">Docket No. 2018-321-E</a>

	Duke Energy Progress	Charging Infrastructure (Level 3)	In October 2018, Duke Energy Progress filed an application for a \$3.3 million, three-year electric transportation pilot program. The proposed pilot includes a DC fast charging program, which would involve Duke Energy owning and operating up to 10 DC fast charging stations. In December 2018, the Office of Regulatory Staff requested that the Commission hold the comment period and further action in abeyance to allow the opportunity for a stakeholder process. Stakeholders met twice in 2019 and in April 2019, the Office of Regulatory Staff filed a report on the stakeholder process with recommendations for the proposed programs. Duke Energy Progress filed an amended application based on the stakeholder recommendations. The revised application includes higher budgets for the EV School Bus Program and the DC Fast Charging Program, bringing the total budget to \$4.7 million.	<a href="#">Docket No. 2018-322-E</a>
UT	Rocky Mountain Power	Charging Infrastructure (Level 3)	In March 2019, Rocky Mountain Power filed an application to implement additional programs as part of the Sustainable Transportation and Energy Plan (STEP) Act programs. The utility proposed three new programs, including the Power Balance and Demand Response to Optimize Charging at Intermodal Hub Project. The project will develop a power balance and demand response system with chargers up to 400 kW at the Utah Transit Authority's Intermodal Hub in Salt Lake City. The budget for the project is \$1.96 million. A technical conference was held on April 2, 2019, and a hearing is scheduled for June 17, 2019.	<a href="#">Docket No. 16-035-36</a>
WA	All IOUs	Charging Infrastructure (Level 2 or 3)	H.B. 1512 authorizes the governing authorities of municipal utilities and commissions of public utility districts to adopt transportation electrification plans. These utilities may offer transportation electrification programs to their customers after making a cost-effectiveness determination. The bill also authorizes electric utilities regulated by the Utilities and Transportation Commission to submit a transportation electrification plan including EVSE deployment, incentives, or other services. The House passed the bill in March 2019 and the Senate passed it in	<a href="#">H.B. 1512 (E)</a>

		April. The Governor signed the bill in May 2019.	
All Utilities	Charging Infrastructure (Level 2 or 3)	S.B. 5336, among other things, allows utilities regulated by the Utilities and Transportation Commission to submit transportation electrification plans including infrastructure deployment, programs, services, and incentives.	<a href="#">S.B. 5336 (I)</a>

Legislative Status Key: I = Introduced, P1 = Passed One Chamber, P2 = Passed Both Chambers, E = Enacted, D = Dead. Bill statuses are up to date as of early May 2019.

# Q2 2019 OUTLOOK

Most state legislative sessions will continue into Q2 2019, with over 350 bills related to electric vehicles already introduced in 2019. An **Ohio** bill introduced in April 2019 establishes an Electric Vehicle Infrastructure Study Committee, while a **Georgia** bill would establish a tax credit for zero-emission vehicles and plug-in hybrid electric vehicles.

Several bills were signed into law already in Q2 2019, including transportation electrification bills in **New Mexico** and **Washington** and a bill initiating a study on the impacts of electric vehicle charging on rates in **Kansas**.

Several bills are pending approval by states' governors, including bills adopting electric vehicle registration fees in **Hawaii**, **Iowa**, and **Washington** and a bill establishing an electric vehicle charging station rebate program in **Hawaii**.

A **Georgia** bill allowing electric vehicles to use high-occupancy vehicle lanes is also pending approval by the state's governor, as is a **Montana** bill clarifying that entities operating electric vehicle charging stations are not public utilities.

The **DC** Public Service Commission issued a decision on Pepco's transportation electrification program in early Q2 2019, authorizing the utility to provide make-ready infrastructure, rather than owning charging stations as originally proposed.

In early May 2019, the **Michigan** Public Service Commission approved DTE Electric's Charging Forward electric vehicle program, which will provide make-ready infrastructure and incentives for charging station development.

**Minnesota** utilities are to file transportation electrification plans by June 30, 2019, and **Arizona** utilities are encouraged to file proposed electric vehicle pilot programs by June 1, 2019. Final recommendations from stakeholders are due in **Vermont**'s electric vehicle investigation by May 13, 2019.

An initial educational workshop is scheduled for June 2019 as part of the **Arkansas** Public Service Commission's distributed energy resource and grid modernization proceeding. The **Iowa** Utilities Board issued a decision in April 2019 adopting rules exempting electric vehicle charging stations from public utility regulation.

A program announced by **Alaska** Power and Telephone in early April 2019 will provide a bill credit to customers purchasing electric vehicles. Consolidated Edison in **New York** announced a program later in May that will provide ConnectDER devices to customers to solar systems and electric vehicle chargers.



## ENDNOTES

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<sup>1</sup> Rhodium Group, *Preliminary US Emissions Estimates for 2018*, January 2019, <https://rhg.com/research/preliminary-us-emissions-estimates-for-2018/>

<sup>2</sup> Inside EVs, *January 2019 U.S. Plug-In EV Sales Report Card*, February 2019, <https://insideevs.com/january-2019-u-s-plug-in-ev-sales-report-card/>

<sup>3</sup> U.S. Plug-In Vehicle Sales for 2017 Q4 and Full Year, EV Volumes, <http://www.ev-volumes.com/country/usa/>

<sup>4</sup> Auto Alliance, *Advanced Technology Vehicle Sales Dashboard*, <https://autoalliance.org/energy-environment/advanced-technology-vehicle-sales-dashboard/>

<sup>5</sup> The International Council on Clean Transportation, *California's Continued Electric Vehicle Market Development*, May 2018, <https://www.theicct.org/sites/default/files/publications/CA-cityEV-Briefing-20180507.pdf>

<sup>6</sup> Adam Cooper and Kellen Schefter, The Edison Foundation Institute for Electric Innovation and Edison Electric Institute, *Electric Vehicle Sales Forecast and the Charging Infrastructure Required Through 2030*, November 2018, [http://www.edisonfoundation.net/iei/publications/Documents/IEI\\_EEI%20EV%20Forecast%20Report\\_Nov\\_2018.pdf](http://www.edisonfoundation.net/iei/publications/Documents/IEI_EEI%20EV%20Forecast%20Report_Nov_2018.pdf)